



## **CITY OF ONTARIO DEVELOPMENT ADVISORY BOARD**

### **AGENDA**

**April 15, 2024**

- ▶ **All documents for public review are on file in the Planning Department located in City Hall at 303 East “B” St., Ontario, CA 91764 and on the city’s website at [ontarioca.gov/Agendas/DAB](http://ontarioca.gov/Agendas/DAB)**

**MEETING WILL BE HELD AT 1:30 PM IN ONTARIO CITY COUNCIL CHAMBERS  
LOCATED AT 303 East “B” St.**

Scott Ochoa, City Manager  
Scott Murphy, Executive Director, Community Development Agency  
Jennifer McLain Hiramoto, Executive Director, Economic Development  
James Caro, Building Official  
Henry Noh, Planning Director  
Khoi Do, City Engineer  
Chief Michael Lorenz, Police Department  
Fire Marshal Paul Ehrman, Fire Department  
Scott Burton, Utilities General Manager  
Angela Magana, Community Improvement Manager

### **PUBLIC COMMENTS**

*Citizens wishing to address the Development Advisory Board on any matter that is not on the agenda may do so at this time. Please state your name and address clearly for the record and limit your remarks to five minutes.*

*Please note that while the Development Advisory Board values your comments, the members cannot respond nor take action until such time as the matter may appear on the forthcoming agenda.*

### **AGENDA ITEMS**

*For each of the items listed below the public will be provided an opportunity to speak. The chairperson will open the public hearing. At that time the applicant will be allowed three (3) minutes to make a presentation on the*

case. Members of the public will then be allowed three (3) minutes each to speak. The Development Advisory Board may ask the speakers questions relative to the case and the testimony provided. The question period will not count against your time limit. After all persons have spoken, the applicant will be allowed three minutes to summarize or rebut any public testimony. The chairperson will then close the public hearing portion of the hearing and deliberate the matter.

## **CONSENT CALENDAR ITEMS**

### **A. MINUTES APPROVAL**

Development Advisory Board Minutes of March 18, 2024, approved as written.

## **PUBLIC HEARING ITEMS**

- B. ENVIRONMENTAL ASSESSMENT AND DEVELOPMENT PLAN REVIEW FOR FILE NO. PDEV22-017**: A public hearing to consider certification of the Final Environmental Impact Report (State Clearinghouse No. 202209006), including the adoption of a Mitigation Monitoring and Reporting Program and a Statement of Overriding Considerations, in conjunction with a Development Plan to construct a 270,337-square-foot industrial building on 13.08 acres of land (0.47 FAR) located at 5355 East Airport Drive, within the IH (Heavy Industrial) zoning district. The proposed project is located within the Airport Influence Area of Ontario International Airport and was evaluated and found to be consistent with the policies and criteria of the Ontario International Airport Land Use Compatibility Plan; (APNs: 0238-052-29 and 0238-052-20) **submitted by Prologis. This item was continued from the March 18, 2024 Development Advisory Board meeting. Planning Commission action is required.**

#### **1. CEQA Determination**

Motion to recommend Approval/Denial of the use of an EIR.

#### **2. File No. PDEV22-017 (Development Plan)**

Motion to recommend Approval/Denial

- C. ENVIRONMENTAL ASSESSMENT AND DEVELOPMENT PLAN REVIEW FOR FILE NO. PDEV23-036**: A public hearing to consider a Development Plan to construct a new 60,889 square foot automotive dealership composed of a new Kia showroom, Ford showroom and service building on 6.99 acres of land located at the northeast corner of Guasti Road and Haven Avenue, within the Office land use designation of the Ontario Gateway Specific Plan. The environmental impacts of this project were previously reviewed in conjunction with the Environmental Impact Report (EIR) prepared for Ontario Gateway Specific Plan (PSPA05-005), certified by City Council on July 3, 2007. This application introduces no new significant environmental impacts. The proposed project is located within the Airport Influence Area of Ontario International Airport and was evaluated and found to be consistent with the policies and criteria of the Ontario International Airport Land Use Compatibility Plan; (APN: 0210-212-60) **submitted by Robert Plan.**

#### **1. CEQA Determination**

No action necessary – use of previous EIR

#### **2. File No. PDEV23-036 (Development Plan)**

Motion to Approve / Deny

If you wish to appeal a decision of the **Development Advisory Board**, you must do so within ten (10) days of the **Development Advisory Board** action. Please contact the **Planning Department** for information regarding the appeal process.

If you challenge any action of the **Development Advisory Board** in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the **Development Advisory Board** at, or prior to, the public hearing.

The next **Development Advisory Board** meets on **May 6, 2024**.

I, Gwen Berendsen, Administrative Assistant of the City of Ontario, or my designee, hereby certify that a true, accurate copy of the foregoing agenda was posted on or before **April 11, 2024**, at least 72 hours prior to the meeting per Government Code Section 54954.2 at 303 East "B" Street, Ontario.

  
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Administrative Assistant

**CITY OF ONTARIO**

**Development Advisory Board**

**Minutes**

**March 18, 2024**

**BOARD MEMBERS PRESENT**

Henry Noh, Chairman, Planning Department  
James Caro, Building Department  
Miguel Jimenez, Community Improvement  
Charity Hernandez, Economic Development Agency  
Khoi Do, Engineering Department  
Paul Ehrman, Fire Department  
Christy Stevens, Municipal Utilities Company  
Heather Lugo, Police Department (Arrived 1:32PM)

**BOARD MEMBERS ABSENT**

None

**STAFF MEMBERS PRESENT**

Gwen Berendsen, Planning Department  
Tom Grahn, Planning Department  
Lorena Mejia, Planning Department  
Robert Morales, Planning Department  
Brenda Fregoso, Engineering Department

David Eoff IV, Planning Department  
Raymond Lee, Engineering Department  
Kim Ruddins, Planning Department  
Fred Addison, Engineering Department

**PUBLIC COMMENTS**

No person from the public wished to speak.

**CONSENT CALENDAR ITEMS**

- A. **APPROVAL OF MINUTES**: Motion to approve the minutes of the March 4, 2024 meeting of the Development Advisory Board was made by Mr. Ehrman; seconded by Ms. Stevens; and approved unanimously by those present (7-0).

Police Department representative arrived at 1:32 PM.

**PUBLIC HEARING ITEMS**

- B. **ENVIRONMENTAL ASSESSMENT AND DEVELOPMENT PLAN REVIEW FOR FILE NO. PDEV23-030**: A hearing to consider a Development Plan to construct one (1) industrial building totaling 73,658 square feet on 4.30 acres of land located at 1275 South Dupont Avenue, within the Light Industrial land use district of the California Commerce Center Specific Plan. The project is categorically exempt from the requirements of the California Environmental Quality Act

(CEQA) pursuant to Section 15332 (Class 32, In-fill Development Projects) of the CEQA Guidelines. The proposed project is located within the Airport Influence Area of Ontario International Airport and was evaluated and found to be consistent with the policies and criteria of the Ontario International Airport Land Use Compatibility Plan; (APN: 211-232-33) **submitted by Link Logistics.**

Mr. Noh opened the public hearing.

Joe Williams with Link Logistics was present.

Mr. Noh asked if Mr. Williams had reviewed and agreed with the Conditions of Approval.

Mr. Williams stated yes.

Jonathan Daily with LIUNA spoke in favor of the project.

As there was no one else wishing to speak on this item, Mr. Noh closed the public hearing.

Motion to approve **File No. PDEV23-030**, subject to conditions, was made by Ms. Stevens; seconded by Mr. Caro; and approved unanimously by those present (8-0).

- C. **ENVIRONMENTAL ASSESSMENT DEVELOPMENT PLAN AND CONDITIONAL USE PERMIT REVIEW FOR FILE NOS. PDEV22-015 AND PCUP22-005:** A public hearing to consider Development Plan (File No. PDEV22-015) in conjunction with a Conditional Use Permit (File No. PCUP22-005) to construct and establish a 126,652 square foot commercial self-storage building on 2.73 acres of land located on the northeast corner of Euclid Avenue and Riverside Drive within the CN (Neighborhood Commercial) zoning district. The project is categorically exempt from the requirements of the California Environmental Quality Act (CEQA) pursuant to Section 15332 (Class 32, In-fill Development Projects) of the CEQA Guidelines. The proposed project is located within the Airport Influence Area of Ontario International Airport and was evaluated and found to be consistent with the policies and criteria of the Ontario International Airport Land Use Compatibility Plan (ALUCP); (APN: 1051-614-08) **submitted by Riverside Storage, LLC. Planning Commission action is required.**

Mr. Noh opened the public hearing.

Curtis Gibson with Riverside Storage was present.

Mr. Noh asked if Mr. Gibson had reviewed and agreed with the Conditions of Approval.

Mr. Gibson stated yes.

As there was no one else wishing to speak on this item, Mr. Noh closed the public hearing.

Motion to recommend approval of **File Nos. PCUP22-005 and PDEV22-015**, subject to conditions, was made by Ms. Lugo; seconded by Mr. Jimenez; and approved unanimously by those present (8-0).

- D. **ENVIRONMENTAL ASSESSMENT AND DEVELOPMENT PLAN REVIEW FOR FILE NO. PDEV22-017:** A public hearing to consider certification of the Final Environmental Impact Report (State Clearinghouse No. 202209006), including the adoption of a Mitigation Monitoring and Reporting Program and a Statement of Overriding Considerations, in conjunction with a

Development Advisory Board Minutes  
March 18, 2024

Development Plan to construct a 270,337-square-foot industrial building on 13.08 acres of land (0.47 FAR) located at 5355 East Airport Drive, within the IH (Heavy Industrial) zoning district. The proposed project is located within the Airport Influence Area of Ontario International Airport and was evaluated and found to be consistent with the policies and criteria of the Ontario International Airport Land Use Compatibility Plan; (APNs: 0238-052-29 and 0238-052-20) **submitted by Prologis. Planning Commission action is required.**

Mr. Noh opened the public hearing and stated a written comment had been received for this item and was forwarded to the members of the Development Advisory Board.

John Carter with Prologis was present.

Mr. Noh asked if Mr. Carter had reviewed and agreed with the Conditions of Approval.

Mr. Carter requested more time to review and work with staff on the Conditions of Approval.

Robert Lugan (I.W. Maddog) with Local 416 Ironworkers spoke in opposition of the project.

Salvador Rincon with Ironworker Local 433 spoke in opposition of the project.

Wyatt Stiles with Local 398 Plumber spoke in opposition of the project.

Wanyae McDonald spoke in opposition of the project asking for a time extension in order to review the effects of traffic within a 5 mile radius.

David Martinez spoke in opposition of the project and requested air filters and an electric fleet.

Amy Smith with CARE CA, spoke in opposition of the project and requested cumulative impacts be looked at.

Zach Strasters spoke in opposition of the project requesting air filters and an electric fleet and the traffic impacts be looked at.

Juan Serrato with LIUNA spoke in favor of the project.

Aidan Marshall with CARE CA, spoke in opposition of the project and requested the item be continued to access the environmental and health issues and cumulative impacts.

Raymond Smith spoke in opposition of the project and the concern of the amount of warehouses within the city.

Mr. Noh asked the applicant if he would like to rebut.

Mr. Carter didn't want to rebut.

Mr. Noh asked Senior Planner Grahn if air quality and traffic were evaluated with the project.

Mr. Grahn stated they were addressed in the EIR.

Mr. Noh asked if they mitigated the impacts.

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Mr. Grahn stated mitigated measures were addressed for this specific project.

Mr. Ehrman asked if there were any specific conditions that the applicant was referring to regarding working on the conditions of approval with staff.

Mr. Noh explained there were no specifics given and Mr. Carter needed more time to review.

As there was no one else wishing to speak on this item, Mr. Noh closed the public hearing.

Motion to continue **File No. PDEV23-030**, to allow time to clarify the conditions of approval and other issues raised during the hearing, was made by Mr. Do; seconded by Mr. Caro; and approved unanimously by those present (8-0).

Mr. Noh stated the item would be re-advertised when it goes forward at another hearing date.

There being no further business, the meeting was adjourned to the next meeting on April 1, 2024.

Respectfully submitted,



Gwen Berendsen  
Recording Secretary



# DEVELOPMENT ADVISORY BOARD DECISION

April 15, 2024

303 East B Street, Ontario, California 91764 Phone: 909.395.2036 / Fax: 909.395.2420

**DECISION NO.:** [insert #]

**FILE NO.:** PDEV22-017 – Draft Environmental Impact Report

**DESCRIPTION:** A public hearing to consider a Draft Environmental Impact Report (State Clearinghouse No. 2022090006) prepared for a Development Plan (File No. PDEV22-017) to construct a 270,337 square-foot industrial building on 13.08 acres of land (0.47 FAR) located at 5355 East Airport Drive, within the IH, (Heavy Industrial) zoning district; (APNs: 0238-052-20 & 0238-052-29) **submitted by Prologis. Planning Commission action is required.**

## PART 1: BACKGROUND & ANALYSIS

PROLOGIS, (herein after referred to as "Applicant") has filed a request to consider the use of the 5355 East Airport Drive Draft Environmental Impact Report ("draft EIR") (State Clearinghouse No. 2022090006) for the approval of a Development Plan, File No. PDEV22-017, as described in the subject of this Decision (herein after referred to as "Application" or "Project").

The Development Advisory Board is only tasked with making a recommendation to the Planning Commission for the draft EIR and the Development Plan application.

**PROJECT SETTING:** The Project site is comprised of 13.08 acres of land located at 5355 Airport Drive. Existing land uses, Policy Plan (general plan) and zoning designations, and specific plan land uses on and surrounding the Project site are as follows:

	<i>Existing Land Use</i>	<i>Policy Plan Land Use Designation</i>	<i>Zoning Designation</i>	<i>Specific Plan Land Use Designation</i>
Site:	Industrial (Grain processing and storage)	Industrial (0.55 FAR)	IH, Heavy Industrial	N/A
North:	Railroad ROW and Warehouse	Rail & Shea Business Center Beyond	RC Rail Corridor & IH, Heavy Industrial	Industrial / Commercial / Office
South:	Warehouse	Industrial (0.55 FAR)	IH, Heavy Industrial	N/A
East:	Industrial (Industrial gas supplier)	Industrial (0.55 FAR)	IH, Heavy Industrial	N/A
West:	Warehouse	Industrial (0.55 FAR)	IH, Heavy Industrial	N/A



**PROJECT DESCRIPTION:** The Project to be analyzed by the Development Advisory Board under the draft EIR consists of a Development Plan application to construct a 270,337 square-foot industrial building on the 13.08 acres of the Project site.

The Application is a project pursuant to the California Environmental Quality Act (Public Resources Code Section 21000 et seq.) ("CEQA") and an Initial Study has been prepared to determine possible environmental impacts. Although the proposed project could have a significant effect on the environment, because all potentially significant effects have been analyzed adequately in the draft EIR and have been avoided or mitigated pursuant to that draft EIR, including revisions or mitigation measures that are imposed on the proposed project, nothing further is required. The Project will introduce no new significant environmental impacts beyond those analyzed in the draft EIR, and all mitigation measures proposed by the draft EIR are a condition of project approval.

**ENVIRONMENTAL REVIEW:** The draft EIR prepared for the Project included studies and assessments (see Appendices A through K Attachment A – Draft EIR). A summary of each study is as follows:

a) Air Quality Impact Analysis – The Air Quality Impact Analysis was prepared to evaluate potential construction and operational emissions associated with the Project and determine the level of impact the Project would have on the environment. The report concluded that air quality impacts related to the proposed Project are less than the significant and unavoidable impacts identified in The Ontario Plan 2050 FSEIR. No new impacts relative to construction and operational emissions, sensitive receptors, odors, and cumulative impacts.

b) Mobile Source Health Risk Assessment – This report evaluates the potential mobile-source emissions health risk impacts associated with the development of the proposed Project. This report evaluates potential health risk impacts that could result from exposure to Toxic Air Contaminants (TACs), specifically diesel particulate matter (DPM) generated by heavy-duty diesel trucks accessing the site. The land use with the greatest potential increased cancer risk due to exposure to Project construction-source and operational-source DPM emissions is estimated at a maximum incremental cancer risk attributable to Project construction and operational DPM source emissions at <0.01 in one million, which is less than the threshold of 10 in one million. Additionally, non-cancer risks were estimated to be <0.01, which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to adjacent land uses as a result of Project construction and operational activity. All other receptors during construction and operational activity would experience less risk than what is identified for this location.

c) Cultural Resources Records Search – An archaeological records search was completed for the Project pursuant to the California Environmental Quality Act (CEQA). This included a records search from the South Central Coastal Information Center at California State University, Fullerton. The records search encompassed an area of one-half mile surrounding the project. Based upon the records search results, three resources

were recorded within one-half mile of the project, none of which are within the project boundaries. The resources include a historic railroad track alignment, a historic foundation, and a historic transmission line alignment. The records search results also indicate that six previous studies have been conducted within one-half mile of the project, one of which overlaps the western third of the subject property. The study, entitled "Archaeological Reconnaissance Survey Report, Middle Lugo-Mira Loma 500KV T/L Right-Of-Way Between Concours and Jurupa Avenue, Ontario, California," did not result in the identification of any cultural resources within the subject property.

d) Energy Analysis – The purpose of the Energy Analysis is to ensure that energy implications considered by the City quantify anticipated energy usage associated with construction and operation of the proposed Project, determine if the usage amounts are efficient, typical, or wasteful for the land use type, and to emphasize avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. The report concludes that there is a less than significant impact to the potential to result in environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources and the less than significant impact for the potential to conflict with or obstruct a plan for renewable energy or energy efficiency.

e) Geotechnical Investigation – The Geotechnical Investigation included a visual site reconnaissance, subsurface exploration, field and laboratory testing, and geotechnical engineering analysis to provide criteria for preparing the design of the building foundations, building floor slab, and parking lot pavements along with site preparation recommendations and construction considerations for the proposed development.

f) Infiltration Report – The Infiltration Report included site reconnaissance, subsurface exploration, field testing, and engineering analysis to determine the infiltration rates of the on-site soils. The infiltration testing was performed in general accordance with the guidelines published in the Riverside County – Low Impact Development BMP Design Handbook – Section 2.3 of Appendix A, prepared for the Riverside County Department of Environmental Health (RCDEH), dated December 2013. The San Bernardino County standards defer to the guidelines published by the RCDEH.

g) Greenhouse Gas Analysis – The GHG Analysis was prepared to evaluate potential construction and operational emissions associated with the Project and determine the level of impact the Project would have on the environment. The analysis was undertaken to analyze whether the proposed Project would result in any new or substantially more severe significant GHG emissions or conflict with an adopted policy or regulation adopted for the purpose of reducing GHG emissions. In both instances the analysis concluded a less than significant impact and identified that the Project would be required to comply with regulations imposed by the State and the South Coast Air Quality Management District (SCAQMD) aimed at the reduction of air pollutant emissions.

h) Phase 1/Phase 2 Environmental Site Assessment Report – The purpose of the Phase 1/Phase 2 Environmental Site Assessment Report was to perform a screening level survey for indications of the potential presence of hazardous and/or toxic materials on the Project site. Based on the findings from the Phase I/II ESA, the study recommends preparation of a Media Management Plan for use during Site redevelopment to address any unexpected impacts to soil associated with historical activities at the Site, and to address any issues related to the former brine pond, underground grain conveyance systems, septic systems, and former USTs at the Site. Additional investigation and characterization are recommended to address PCE in soil vapor that may impact indoor air in the future building.

i) Preliminary Hydrology Report – The Preliminary Hydrology Report was prepared to demonstrate that the proposed Project site can be designed to provide adequate flood protection without adversely impacting existing off-site drainage systems or adjacent properties. The proposed Project would not create or contribute runoff that would exceed the capacity of the existing downstream storm drain system. The underground infiltration system is designed to accommodate the 100-year storm event and would not exceed the flow rates and runoff volumes generated by the existing condition. Upon completion, there would not be any substantial increase in flood boundaries, levels, or frequencies in any areas outside the Project site. The hydrologic analyses and calculations were designed in accordance with the San Bernardino County Hydrology Manual.

j) Preliminary Water Quality Management Plan – The Project submitted a Preliminary Water Quality Management Plan ("PWQMP"), which establishes the Project's compliance with storm water discharge/water quality requirements. The PWQMP includes site design measures that capture runoff and pollutant transport by minimizing impervious surfaces and maximizes low impact development ("LID") best management practices ("BMPs"), such as retention and infiltration, biotreatment, and evapotranspiration. The PWQMP proposes the use of underground storm water retention chambers to receive, retain, and treat storm water runoff.

k) Noise Impact Analysis – The purpose of the Noise Impact Analysis is to evaluate the potential construction and operational noise and vibration levels associated with the Project and determine the level of impact the Project would have on the environment. The noise study briefly describes the proposed Project, provides information regarding noise fundamentals, sets out the local regulatory setting, presents the study methods and procedures for noise analysis, and evaluates the future exterior noise environment. In addition, this study includes an analysis of the potential Project-related long-term stationary-source operational noise and short-term construction noise and vibration impacts. The report concludes that implementation of the Project would not result in substantial temporary or permanent increases in ambient noise levels. Project Operation Noise, Construction Noise, and Construction Vibration would not exceed construction noise thresholds and operational noise levels and would result in a less than significant impact.

l) VMT Analysis – The Project's was evaluated against screening criteria as outlined in the City Guidelines. The Project was not found to meet any available screening criteria, and a model based VMT analysis was performed. The Project's VMT analysis found the Project to exceed the City's VMT per employee threshold by 22.56% in baseline conditions and 28.47% in buildout conditions. The Project will have a potentially significant transportation impact. Since the future tenants are unknown at this time, implementation of the feasible TDM measures discussed in the report cannot be guaranteed to reduce the Project generated VMT per employee; and the Project's VMT impact is considered significant and unavoidable.

## **PART 2: RECITALS**

WHEREAS, the Application is a Project pursuant to the California Environmental Quality Act (Public Resources Code Section 21000 et seq.) ("CEQA") and an initial study has been prepared to determine possible environmental impacts; and

WHEREAS, the 5355 East Airport Drive Draft Environmental Impact Report (State Clearinghouse No. 2022090006) was prepared (hereinafter referred to as "draft EIR"), in which development and use of the Project site was discussed; and

WHEREAS, the environmental impacts of this Project were thoroughly analyzed in the draft EIR, which concluded that implementation of the Project could result in a number of significant effects on the environment and identified mitigation measures that would reduce each of those significant effects to a less-than-significant level; and

WHEREAS, the City's "Local Guidelines for the Implementation of the California Environmental Quality Act (CEQA)" provide for the use of a single environmental assessment in situations where the impacts of subsequent projects are adequately analyzed; and

WHEREAS, Ontario Development Code Table 2.02-1 (Review Matrix) grants the Development Advisory Board (hereinafter referred to as "DAB") the responsibility and authority to review and make recommendation to the Planning Commission on the subject Application; and

WHEREAS, all members of the DAB of the City of Ontario were provided the opportunity to review and comment on the Application, and no comments were received opposing the proposed development; and

WHEREAS, the Project has been reviewed for consistency with the Housing Element of the Policy Plan component of The Ontario Plan, as State Housing Element law (as prescribed in Government Code Sections 65580 through 65589.8) requires that development projects must be consistent with the Housing Element, if upon consideration of all its aspects, it is found to further the purposes, principals, goals, and policies of the Housing Element; and

WHEREAS, the Project is located within the Airport Influence Area of Ontario International Airport, which encompasses lands within parts of San Bernardino, Riverside, and Los Angeles Counties, and is subject to, and must be consistent with, the policies and criteria set forth in the Ontario International Airport Land Use Compatibility Plan (hereinafter referred to as "ONT ALUCP"), which applies only to jurisdictions within San Bernardino County, and addresses the noise, safety, airspace protection, and overflight impacts of current and future airport activity; and

WHEREAS, the City of Ontario is the lead agency on the Project, and the Development Advisory Board (hereinafter referred to as "DAB") is the recommending body for the requested approval to construct and otherwise undertake the Project; and

WHEREAS, the DAB has reviewed and considered the draft EIR and related documents for the Project, and intends to take actions on the Project in compliance with CEQA and state and local guidelines implementing CEQA; and

WHEREAS, the draft EIR and related documents are on file in the City of Ontario Planning Department, located at 303 East B Street, Ontario, CA 91764, and are available for inspection by any interested person at that location and are, by this reference, incorporated into this Decision as if fully set forth herein; and

WHEREAS, City of Ontario Development Code Division 2.03 (Public Hearings) prescribes the manner in which the public notification of environmental actions shall be provided and hearing procedures to be followed, and all such notifications and procedures have been accomplished pursuant to Development Code requirements; and

WHEREAS, on March 18, 2024, the DAB voted to continue the Project to a future DAB meeting to allow staff to work with the applicant to revise draft conditions of approval; and

WHEREAS, on April 15, 2024 the DAB of the City of Ontario conducted a hearing on the Project and concluded said hearing on that date; and

WHEREAS, all legal prerequisites to the hearing and adoption of this Decision have occurred.

### ***PART 3: THE DECISION***

NOW, THEREFORE, IT IS HEREBY FOUND, DETERMINED AND DECIDED by the Development Advisory Board of the City of Ontario as follows:

SECTION 1: Environmental Determination and Findings. As the recommending body for the Project, the DAB has reviewed and considered the information contained in the draft EIR and supporting documentation. Based upon the facts and information

contained in the draft EIR and supporting documentation, including all written and oral evidence presented to the DAB, the DAB finds as follows:

- (1) The environmental impacts of this Project were reviewed in conjunction with the 5355 East Airport Drive draft Environmental Impact Report (State Clearinghouse No. 2022090006) (“draft EIR”) that was prepared; and
- (2) The draft EIR contains a complete and accurate reporting of the environmental impacts associated with the Project; and
- (3) The draft EIR was completed in compliance with CEQA and the Guidelines promulgated thereunder, and the City of Ontario Local CEQA Guidelines; and
- (4) The draft EIR reflects the independent judgment of the Development Advisory Board.

SECTION 2: Housing Element Compliance. Pursuant to the requirements of California Government Code Chapter 3, Article 10.6, commencing with Section 65580, as the recommending body for the Project, the DAB finds that based on the facts and information contained in the Application and supporting documentation, at the time of Project implementation, the Project is consistent with the Housing Element of the Policy Plan (General Plan) component of The Ontario Plan, as the Project site is not one of the properties in the Housing Element Sites contained in Tables B-1 and B-2 (Housing Element Sites Inventory) of the Housing Element Technical Report.

SECTION 3: Airport Land Use Compatibility Plan (“ALUCP”) Compliance. The California State Aeronautics Act (Public Utilities Code Section 21670 et seq.) requires that an Airport Land Use Compatibility Plan be prepared for all public use airports in the State; and requires that local land use plans and individual development proposals must be consistent with the policies set forth in the adopted Airport Land Use Compatibility Plan.

(1) On April 19, 2011, the City Council of the City of Ontario approved and adopted the ONT ALUCP, establishing the Airport Influence Area for Ontario International Airport, which encompasses lands within parts of San Bernardino, Riverside, and Los Angeles Counties, and limits future land uses and development within the Airport Influence Area, as they relate to noise, safety, airspace protection, and overflight impacts of current and future airport activity. As the recommending body for the Project, the DAB has reviewed and considered the facts and information contained in the Application and supporting documentation against the ONT ALUCP compatibility factors, including [1] Safety Criteria (ONT ALUCP Table 2-2) and Safety Zones (ONT ALUCP Map 2-2), [2] Noise Criteria (ONT ALUCP Table 2-3) and Noise Impact Zones (ONT ALUCP Map 2-3), [3] Airspace protection Zones (ONT ALUCP Map 2-4), and [4] Overflight Notification Zones (ONT ALUCP Map 2-5). As a result, the DAB, therefore, finds and determines that the Project, when implemented in conjunction with the conditions of approval, will be consistent with the policies and criteria set forth within the ONT ALUCP.

SECTION 4: Development Advisory Board Action. The DAB does hereby find that based upon the entire record of proceedings before it, and all information received, that there is no substantial evidence that the Project will constitute substantial changes to the draft EIR and does hereby recommend the Planning Commission adopt the draft EIR, included as Attachment A of this Decision.

(1) The Project EIR analyzed the environmental impacts associated with the implementation of the Development Plan (File No. PDEV22-017), and finds that, if the Project occurs as proposed, and with implementation of proposed mitigation measures, the following impacts will still be significant and unavoidable after mitigation:

a. Transportation – Potential impacts of the Project are discussed in detail in Section 4.11.6 of the DEIR. The Project is required to implement Mitigation Measure 4.10-1, which would reduce VMT impacts to the extent feasible.

SECTION 5: Indemnification. The Applicant shall agree to defend, indemnify and hold harmless, the City of Ontario or its agents, officers, and employees from any claim, action or proceeding against the City of Ontario or its agents, officers or employees to attack, set aside, void or annul this approval. The City of Ontario shall promptly notify the applicant of any such claim, action or proceeding, and the City of Ontario shall cooperate fully in the defense.

SECTION 6: Custodian of Records. The documents and materials that constitute the record of proceedings on which these findings have been based are located at the City of Ontario City Hall, 303 East "B" Street, Ontario, California 91764. The custodian for these records is the City Clerk of the City of Ontario. The records are available for inspection by any interested person, upon request.

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APPROVED AND ADOPTED this 15th day of April 2024.

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Development Advisory Board Chairman

**Attachment A**

**Draft Environmental Impact Report**

*(Draft EIR follows this page)*





# Draft Environmental Impact Report

SCH No. 2022090006

## 5355 East Airport Drive

City of Ontario, California

### Lead Agency:

City of Ontario  
303 East "B" Street  
Ontario, CA 91764

August 2023

Draft Environmental Impact Report  
SCH No. 2022090006

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**5355 East Airport Drive**  
City of Ontario, California

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**Lead Agency**

City of Ontario  
303 East "B" Street  
Ontario, CA 91764

**CEQA Consultant**

T&B Planning, Inc.  
3200 El Camino Real, Suite 100  
Irvine, CA 92602

**Project Applicant**

Prologis, Inc.  
17777 Center Court Drive N, Suite 100  
Cerritos, CA 90703

**Lead Agency Discretionary Permits**

Development Plan PDEV22-017

**August 2023**



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## **APPENDICES (BOUND SEPARATELY)**

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**Appendix C Cultural Resources Records Search Results**

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**Appendix E1 Geotechnical Investigation**

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**Appendix H1 Preliminary Hydrology Report**

**Appendix H2 Preliminary Water Quality Management Plan**

**Appendix I Noise Impact Analysis**

**Appendix J Vehicle Miles Traveled Analysis**

**Appendix K Trip Generation Assessment**



## ACRONYMS AND ABBREVIATIONS

<u>Acronym</u>	<u>Definition</u>
§	Section
>	greater than
≥	greater than or equal to
a.m.	Ante Meridiem (between the hours of midnight and noon)
AAQS	Ambient Air Quality Standards
AB	Assembly Bill
AB 52	Native Americans: California Environmental Quality Act
AB 1493	Pavley Fuel Efficiency Standards
AB 1327	California Solid Waste Reuse and Recycling Act
AB 939	California Solid Waste Integrated Management Act
AB 1881	California Assembly Bill 1881, California Water Conservation Act of 2006
AC	Acres
ACMs	Asbestos Containing Materials
A.D.	Anno Domini
ADP	Area Drainage Plan
AERMOD	Air Quality Dispersion Modeling
ADT	Average Daily Traffic
AFY	Acre Feet per Year
AIA	Airport Influence Area
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
AMSL	Above Mean Sea Level
A-P Act	Alquist-Priolo Earthquake Fault Zoning Act
APN	Assessor Parcel Number
AQMP	Air Quality Management Plan
ASTM	American Society of Testing and Materials
ASTs	Above ground storage tanks
Av.	Avenue
BACM	Best Available Control Measure
BAU	Business as Usual
B.C.	Before Christ
bgs	Below ground surface
Blvd.	Boulevard
BMPs	Best Management Practices



BLM	Bureau of Land Management
C <sub>2</sub> F <sub>6</sub>	Hexafluoroethane
C <sub>2</sub> H <sub>6</sub>	Ethane
CA	California
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CalEEMod™	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CALGreen Code	California Green Building Standards Code
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CASQUA	California Stormwater Quality Association
CAW	California American Water
CBC	California Building Code
CBSC	California Building Standards Code
CCR	California Code of Regulations
CCAA	California Clear Air Act
CDC	California Department of Conservation
CDD	Community Development Director
CDE	California Department of Education
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEPA	California Environmental Protection Agency
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CETAP	Community & Environmental Transportation Acceptability Process
CFC	California Fire Code
CFCs	Chlorofluorocarbons
C <sub>2</sub> F <sub>6</sub>	Hexafluoroethane
CF <sub>4</sub>	Tetrafluoromethane
CF <sub>3</sub> CH <sub>2</sub> F	HFC-134a
CFR	Code of Federal Regulations
CFS	Cubic Feet per Second
CGS	California Geologic Survey
CH	Conservation Habitat



C <sub>2</sub> H <sub>6</sub>	Ethane
CH <sub>4</sub>	Methane
CH <sub>3</sub> CHF <sub>2</sub>	HFC-152a
CHF <sub>3</sub>	HFC-23
CHHSL	California Human Health Screening Level
CHP	combined heat and power
CHRIS	California Historic Resources Information System
CIWMB	California Integrated Waste Management Board
CLCA	California Land Conservation Act
CLUP	Comprehensive Land Use Plan
CMP	Congestion Management Program
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	Carbon Monoxide
COG	Council of Governments
CO <sub>2</sub>	Carbon Dioxide
CO <sub>2e</sub>	Carbon Dioxide Equivalent
COHb	carboxyhemoglobin
CPUC	California Public Utilities Commission
CREED	Citizens for Responsible Equitable Environmental Development
CSU	California State University
CSRG	Conservation Summary Report Generator
CTC	California Transportation Commission
CTP	Clean Truck Program
CUP	Conditional Use Permit
CWA	Clean Water Act
CWC	California Water Code
CY	Cubic Yards
CZ	Change of Zone
dB	Decibel
dBA	A-weighted Decibels
DEH	Department of Environmental Health
DIF	Development Impact Fee
DOSH	Division of Occupational Safety and Health
DP	Development Permit
DPM	Diesel Particulate Matter
DRC	Design Review Committee
DRRP	Diesel Risk Reduction Plan
DTSC	Department of Toxic Substances Control



DU	Dwelling Unit
DU/AC	Dwelling units per acre
DWR	Department of Water Resources
E+A+P	Existing plus Ambient Growth plus Project Conditions
E+A+P+C	Existing plus Ambient Growth plus Project Conditions plus Cumulative Conditions
E+P	Existing plus Project Conditions
ECS	Environmental Constraints Sheet
EDR	EDR Sanborn
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EMFAC	Emission Factor Model
EO	Executive Order
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-To-Know Act
EPS	Emission Performance Standard
ESA	Environmental Site Assessment
et seq.	et sequentia, meaning "and the following"
EV	Electric Vehicle
F	Fahrenheit
FAA	Federal Aviation Administration
FAR	floor area ratio
FAR	Federal Aviation Regulations
FEIR	Final Environmental Impact Report
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHSZ	Fire Hazard Severity Zone
FIRM	Flood Insurance Rate Map
FHA	Federal Housing Administration
FHWA	Federal Highway Administration
FIA	Fiscal Impact Analysis
FICON	Federal Interagency Committee on Noise
FMMP	Farmland Mapping and Monitoring Program
FTA	Federal Transit Association
FY	Fiscal Year
FYI	For Your Information



GCC	Global Climate Change
Gg	Gigagrams
GHG	Greenhouse Gas
GIS	Geographic Information System
GISD	Geographic Information Services Database
GgCO <sub>2</sub> e	Gigagrams of carbon dioxide equivalent
GLO	General Land Office
GP	General Plan
GPA	General Plan Amendment
gpd	Gallons per Day
gpm	Gallons per minute
GPS	Global Positioning System
GSA	Groundwater Sustainability Agencies
GVWR	Gross Vehicle Weight Rating
GWP	Global Warming Potential
H <sub>2</sub> O	Water Vapor
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
HCS+	Highway Capacity Software Plus
HDV	Heavy-duty vehicles
HFCs	Hydrofluorocarbons
HI	Hazard Index
HMBEP	Hazardous Materials Business Emergency Plan
HMMD	Hazardous Materials Management Division
HMMP	Hazardous Materials Management Plan
HMTA	Hazardous Materials Transportation Act
HMTAUSA	Hazardous Materials Transportation Uniform Safety Act
Hp	horsepower
HPLV	High Pressure Low Volume
HRI	Historical Resource Inventory
HSC	Health and Safety Code
HUC	Hydrologic Unit Code
HVAC	Heating, Ventilation, and Air Conditioning
I	Interstate
i.e.	that is
IA	Implementing Agreement
IBC	International Building Code
ID	Identification



IEPR	Integrated Energy Policy Report
INCE	Institute of Noise Control Engineering
IPA	Inland Port Airport
IPCC	Intergovernmental Panel on Climate Change
IRP	Installation Restoration Program
IS	Initial Study
ITE	Institute of Transportation Engineers
ITS	intelligent transportation systems
JD	Jurisdictional Delineation
JPA	Joint Powers Authority
JPR	Joint Project Review
kg	kilogram
kBTU	kilo-British thermal units
kWh	kilowatt-hour
LBP	Lead based paint
lbs	pounds
LCA	Life-cycle analysis
LCFS	low carbon fuel standard
LDA	Light duty autos
LDV	Light duty vehicles
LED	light-emitting diode
Leq	equivalent continuous sound level
LHD	light-heavy duty trucks
LID	low impact development
Lmax	Maximum level measured over the time interval
Lmin	Maximum level measures over the time interval
LOS	Level of Service
LSTs	Localized Significance Thresholds
LUST	Leaking Underground Storage Tank
M <sub>3</sub>	Cubic Meter
MACT	Maximum achievable control technology
MBTA	Migratory Bird Treaty Act
MC	Municipal Code
MDP	Master Drainage Plan
MEISC	maximally exposed individual school child
MEIR	maximally exposed individual receptor
MEIW	maximally exposed individual worker





mg	milligrams
MGD	million gallons per day
MH	medium-heavy duty truck
MICR	Maximum Individual Cancer Risk
MM	Mitigation Measure
MMRP	Mitigation Monitoring and Reporting Program
MMTs	million metric tons
MMTCO <sub>2</sub> e	million metric tons of carbon dioxide equivalent
MND	Mitigated Negative Declaration
Mph	Miles per hour
MPO	Metropolitan Planning Organization
MRZ-3	Mineral Resource Zone 3
MRF	Material Recovery Facility
MS4	Municipal Separate Storm Sewer System
MT	metric ton
MTCO <sub>2</sub> e	Metric Tons of Carbon Dioxide Equivalent
MUTCD	Manual on Uniform Traffic Control Devices
MWD	Metropolitan Water District
N/A	Not Applicable
n/o	North of
N <sub>2</sub>	Nitrogen
n.d.	no date
NAHC	Native American Heritage Commission
NAAQS	National Ambient Air Quality Standards
NATA	National Air Toxic Assessment
NB	Northbound
ND	Negative Declaration
NDC	nationally determined contributions
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFIP	National Flood Insurance Program
NHP	National Register of Historic Places
NHPA	National Historic Preservation Act
NIOSH	National Institute for Occupational Safety and Health
No.	Number
NO	Nitric Oxide
NO <sub>2</sub>	Nitrogen Dioxide
NO <sub>x</sub>	Nitrogen Oxides
N <sub>2</sub>	Nitrogen
N <sub>2</sub> O	Nitrous Oxide



NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NPC	National Park Service
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NRCS	Natural Resources Conservation Service
O <sub>2</sub>	Oxygen
O <sub>3</sub>	Ozone
OD	Officially Designated
OEHHA	Office of Environmental Health Hazard Assessment
OHWM	Ordinary High-Water Mark
OPR	Office of Planning and Research
OSHA	Occupational Safety and Health Assessment
Ord.	Ordinance
Pb	Lead
PCBs	Polychlorinated biphenyls
PCEs	Passenger Car Equivalents
PDF	Project Design Feature
PF	Public Facilities land use designation
PFCs	Perfluorocarbons
PHF	peak hour factor
P-I	Public Institutional land use designation
p.m.	Post Meridiem (between the hours of noon and midnight)
PM	Particulate Matter
PM <sub>2.5</sub>	Fine Particulate Matter (2.5 microns or smaller)
PM <sub>10</sub>	Fine Particulate Matter (10 microns or smaller)
Porter-Cologne	Porter-Cologne Water Quality Control Act
ppb	parts per billion
ppm	parts per million
pp.	pages
ppt	parts per trillion
PPV	peak particle velocity
PRC	Professional Regulation Commission
PRC	Public Resources Code
PSE	Public Safety Element
PV	photovoltaic



RBBD	Road and Bridge Benefit District
RCA	Regional Conservation Authority
RCP	Reinforced Concrete Pipe
RCP	Regional Comprehensive Plan
RCNM	Roadway Construction Noise Model
RCRA	Resource Conservation and Recovery Act
Rd.	Road
REC	Recognized environmental Concerns
RECLAIM	Regional Clean Air Incentives Market
REL	Reference Exposure Level
REMEL	Reference Mean Emission Level
RIX	Rapid Infiltration Extraction
RME	resource management element
RMP	Resource Management Plan
RMS	root mean square
ROGs	Reactive Organic Gasses
ROW	Right of Way
RPS	Renewable Portfolio Standards
RPZ	Runway Protection Zone
RTP	Regional Transportation Plan
RTPA	Regional Transportation Planning Agency
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RV	Recreational Vehicle
RWQCB	Regional Water Quality Control Board
SF/s.f.	square foot or square feet
SARA	Superfund Amendments and Reauthorization Act
SB18	Bill of Rights for Children and Youth of California
SB	Southbound
SB	Senate Bill
SB 375	California Senate Bill 375, Sustainable Communities and Climate Protection Act of 2008
SCAB	South Coast Air Basin
SCAG	Sothern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCH	California State Clearinghouse (Office of Planning and Research)
SCS	Sustainable Communities Strategy
SCWR	Southern Cottonwood Willow Riparian
SF <sub>6</sub>	Sulfur Hexafluoride



SLF	Sacred Lands File
SGMA	Sustainable groundwater management act
SHMA	Seismic Hazards Mapping Act
SIP	State Implementation Plan
SO <sub>2</sub>	Sulfur Dioxide
SO <sub>4</sub>	Sulfates
SO <sub>x</sub>	Sulfur Oxides
SOI	Sphere of Influence
SR	State Route
SRA	Source Receptor Area
St.	Street
STC	Sound Transmission Class
SURRGO	Soil Survey Geographic
SUSMP	Standard Urban Stormwater Management Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Regional Control Board
TAC	Toxic Air Contaminants
TBD	To be determined
TEA-21	Transportation Equality Act for 21st Century
TIA	Traffic Impact Analysis
TNW	Traditional Navigable Water
TPM	Tentative Parcel Map
TRUs	Transportation Refrigeration Units
TS	Traffic Signal
TSCEA	Toxic Substance Control Act
TSF	Thousand Square Feet
TTM	Tentative Tract Map
TUMF	Transportation Uniform Mitigation Fee
µg	microgram
UBC	Uniform Building Code
UNFCCC	United Nations' Framework Convention on Climate Change
URBEMIS	URBan EMISsions
U.S.	United States
USACE	United States Army Corps of Engineers
USCB	United States Census Bureau
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United Stated Geological Society



USTs	Underground storage tanks
UWMP	Urban Water Management Plan
V/C	Volume to Capacity Ratio
VFP	Vehicle Fueling Positions
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	Vehicle Miles Traveled
VOCs	Volatile Organic Compounds
VPH	Vehicles per Hour
WDR	Water discharge report
WoUS	Waters of the United States
WoS	Waters of the State
WQMP	Water Quality Management Plan
WRF	Water Reclamation Facility
WRP	Water Reclamation Plan
WRRRA	Water Reuse and Recycle Act
WSA	Water Supply Assessment
YBP	Years before Present
Yr	year
ZC	Zone change



## S.0 EXECUTIVE SUMMARY

### S.1 INTRODUCTION

The California Environmental Quality Act (CEQA) as codified in Public Resources Code Section 21000, *et seq.* requires that before a public agency makes a decision to approve a project that could have one or more adverse effects on the physical environment, the agency must inform itself about the project's potential environmental impacts, give the public an opportunity to comment on the environmental issues, and take feasible measures to avoid or reduce potential harm to the physical environment.

This Environmental Impact Report (EIR) (California State Clearinghouse (SCH) No. 202209006) was prepared in accordance with CEQA Guidelines Article 9, Sections 15120-15132 to evaluate the potential environmental impacts associated with planning, constructing, and operating the proposed 5355 East Airport Drive Project (hereinafter, the "Project" or "proposed Project"). This EIR does not recommend approval or denial of the Project; rather, this EIR is a source of factual information regarding potential impacts to the physical environment that may result from the Project's implementation. The Draft EIR will be available for public review for a minimum period of 45 days. After consideration of public comment, the City of Ontario will consider certifying the Final EIR and adopting required findings.

CEQA Guidelines Section 15063 grants Lead Agencies the ability to bypass preparation of an Initial Study and proceed with preparation of an EIR in instances where an EIR is clearly required for a project. In this instance, the City of Ontario in its capacity as Lead Agency for the proposed Project has determined that the Project clearly has the potential to result in significant environmental effects and that an EIR shall be prepared that addresses the following environmental considerations:

- |                              |                                     |
|------------------------------|-------------------------------------|
| 4.1 Aesthetics               | 4.7 Hazards and Hazardous Materials |
| 4.2 Air Quality              | 4.8 Hydrology and Water Quality     |
| 4.3 Cultural Resources       | 4.9 Noise                           |
| 4.4 Energy                   | 4.10 Transportation                 |
| 4.5 Geology and Soils        | 4.11 Tribal Cultural Resources      |
| 4.6 Greenhouse Gas Emissions | 4.12 Utilities and Service Systems  |

Refer to EIR Section 4.0, *Environmental Analysis*, for a full account and analysis of the subject matters listed above. Subject areas for which the impacts would be clearly less than significant and that do not warrant detailed analysis in this EIR are addressed in EIR Section 5.0, *Other CEQA Considerations*. For each of the aforementioned subject areas, this EIR describes: 1) the physical conditions that existed at the approximate time this EIR's NOP was published (September 1, 2022); 2) discloses the type and magnitude of potential environmental impacts resulting from Project planning, construction, and operation; and 3) if warranted, recommends feasible mitigation measures that would reduce or avoid significant adverse environmental impacts that may result from the Project. A summary of the Project's



significant environmental impacts and the mitigation measures imposed by the City of Ontario to lessen or avoid these impacts is included in this Executive Summary as Table S-1, *Mitigation Monitoring and Reporting Program*. The City of Ontario applies mitigation measures that it determines 1) are feasible and practical for project applicants to implement, 2) are feasible and practical for the City to monitor and enforce, 3) are legal for the City to impose, 4) have an essential nexus to the Project's impacts, and 5) would result in a benefit to the physical environment. CEQA does not require the Lead Agency to impose mitigation measures that are duplicative of mandatory regulatory requirements.

## **S.2 PROJECT OVERVIEW**

### **S.2.1 LOCATION AND SETTING**

The 13.08-acre Project Site is located in southwestern San Bernardino County, within the City of Ontario. The Project Site is located at 5355 East Airport Drive (APN: 0238-052-29 and 0238-052-20) and is bordered by East Airport Drive to the south, industrial uses to the east and west, and railroad tracks to the north. Refer to EIR Section 2.0, *Environmental Setting*, for a detailed description of the Project's location and setting.

### **S.2.2 PROJECT SUMMARY**

For purposes of this EIR, the term "Project" refers to the discretionary action required to implement the proposed Project and all the activities associated with its implementation (including planning, construction, and ongoing operation). The Project would require demolition of the existing buildings and structures, on-site landscaping, and on-site parking. The Project would entail redevelopment of the property and the construction and operation of a building with 270,337 square feet (s.f.) of interior floor area. The Project's design also includes the installation of associated site improvements, including drive aisles, landscaping, utility infrastructure, underground storm drain detention facilities, exterior lighting, walls/fencing, and signage as well as site-adjacent improvements to East Airport Drive. The Project requires the City's approval of a Development Plan (PDEV22-017). Refer to EIR Section 3.0, *Project Description*, for a detailed description of the Project.

### **S.2.3 PROJECT OBJECTIVES**

The fundamental purpose and goal of the 5355 East Airport Drive Project is to accomplish the orderly redevelopment of the Project Site with a modern warehouse distribution facility. The Project would achieve this goal through the following objectives.

- A. To expand economic development and facilitate job creation in the City of Ontario by re-developing the property with a new, in-demand industrial use adjacent to an already-established industrial area.
- B. To attract employment-generating businesses to the City of Ontario to reduce the need for members of the local workforce to commute outside the area for employment.



- C. To develop industrial buildings with loading bays in close proximity to designated truck routes and the State highway system to avoid or shorten heavy truck-trip lengths on City and regional roads.
- D. To attract businesses that can expedite the delivery of goods to consumers and businesses in the City of Ontario and beyond.
- E. To develop a project that has architectural design and operational characteristics that complement other existing and planned buildings in the immediate vicinity of the Project Site and minimize conflicts with other nearby land uses.
- F. To develop a property that has access to available infrastructure, including roads and utilities.

### **S.3 EIR PROCESS**

The City published a NOP and filed a copy with the California Office of Planning and Research (OPR) State Clearinghouse (SCH) to inform the general public, trustee and responsible agencies and other interested parties that an EIR would be prepared for the Project. The NOP was distributed for a 30-day public review period, which began on September 1, 2022. The City of Ontario received written comments on the scope of the EIR during those 30 days, which are considered by the City during the preparation of this EIR. The City also held an EIR scoping meeting open to the interested public agencies and members of the general public on September 13, 2022.

The EIR will be circulated for review and comment by the public and other interested parties, agencies, and organizations for a 45-day review period. During the 45-day public review period, public notices announcing availability of the Draft EIR will be mailed to the interested parties, an advertisement will be published in the Inland Valley Daily Bulletin (a newspaper of general circulation in the City of Ontario), and copies of the Draft EIR and its Technical Appendices will be available for review at the locations indicated in the public notices.

After the close of the 45-day Draft EIR public comment period, the City will prepare and publish responses to written comments received on the environmental effects of the Project. Thereafter, the Final EIR will be considered for certification by the Ontario Planning Commission. Certification of the Final EIR would be accompanied by the adoption of written findings and a “Statement of Overriding Considerations” for any significant unavoidable environmental impacts identified in the Final EIR. In addition, pursuant to Public Resources Code Section 21081.6, because the Project will include mitigation measures, the City, as Lead Agency, must adopt a Mitigation, Monitoring, and Reporting Program (MMRP), which describes the process to ensure implementation of the mitigation measures identified in the Final EIR. The MMRP will ensure CEQA compliance during Project construction and operation.





## **S.4 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED**

CEQA Guidelines Section 15123(b)(2) requires the Lead Agency (City of Ontario) to identify any known issues of controversy in the Executive Summary. The City has not identified any environmental issues of controversy associated with the Project. Notwithstanding, the Lead Agency has identified several issues of local concern including, but not limited to, potential impacts to air pollutant and toxic air contaminant emissions, greenhouse gas emissions, noise, and transportation – and these issues are all addressed in this EIR.

Considering the foregoing, this EIR addresses all environmental issues that are known by the City and that were identified in the comment letters that the City received in response to the NOP and during the EIR scoping meeting (refer to *Technical Appendix A*). See Table 1-1, *Summary of NOP and Scoping Meeting Comments*, in Section 1.0 of this EIR for a summary of all comments received during all comments received by the City during the environmental scoping for the Project.

## **S.5 ALTERNATIVES TO THE PROPOSED PROJECT**

In compliance with CEQA Guidelines Section 15126.6, an EIR must describe a range of reasonable alternatives to the Project or to the location of the Project. Each alternative must be able to feasibly attain most of the Project's objectives and avoid or substantially lessen the Project's significant effects on the environment. A detailed description of each alternative evaluated in this EIR, as well as an analysis of the potential environmental impacts associated with each alternative, is provided in EIR Section 6.0, *Alternatives*. Also described in Section 6.0 is a list of alternatives that were considered but rejected from further analysis. The alternatives considered by this EIR include those listed below.

### **S.5.1 NO PROJECT/NO DEVELOPMENT ALTERNATIVE**

The No Project/No Development Alternative considers no development on the Project site beyond what occurs on the site under existing conditions (as described in EIR Section 3.0). As such, the Alternative is considered to be the scenario where the existing grain processing company and corn storage and distribution facility are retained and the facility continues to process grain and corn into the future. Under this alternative, no improvements would be made to the Project site and none of the Project's internal parking, utility, and other infrastructure improvements would occur. This alternative was selected by the City to compare the environmental effects of the proposed Project with an alternative that would leave the Project site undeveloped in its general existing conditions.

Implementation of the No Project/No Development Alternative would result in no physical environmental impacts to the Project Site beyond those that have historically occurred on the Project Site. All potentially significant effects of the Project would be avoided by the selection of this Alternative; however, this Alternative would fail to meet all of the Project's objectives.



### **S.5.2 REDUCED BUILDING AREA ALTERNATIVE**

The Reduced Building Area Alternative considers a proposal where the Project site would be redeveloped with two separate uses: a light industrial building and a trailer parking lot. Under this Alternative, a 135,169 s.f. light industrial building (including related site improvements such as truck loading/unloading areas and parking, passenger vehicle parking, landscaping, signage, and public utility connections) would be developed on the eastern portion of the Project site and a trailer parking lot would be developed on the western portion of the Project site. This alternative was selected to evaluate a scenario that would reduce the total building area on the Project site relative to the Project but still allow productive industrial use of the entire Project site.

The Reduced Building Area Alternative would avoid – the Project’s significant and unavoidable VMT impacts. The Reduced Building Area Alternative would reduce the Project’s less-than-significant impacts to air quality, energy, greenhouse gas emissions, and utilities and service systems. All other impacts from the Reduced Building Alternative would be similar to the Project.

### **S.5.3 REDUCED INTENSITY ALTERNATIVE**

The Reduced Intensity Alternative considers a proposal where the Project site would be redeveloped with an industrial building with a total square footage of 63,500 s.f. This represents a reduced in development of 206,837 s.f. compare to the Project (approximately 76.5 percent). Under this alternative, no high-cube cold storage uses would be assumed. Access to the site would be similar to the Project with a proportional reduction in the number of parking spaces. Although the proposed building would be reduced, the development impact area would generally remain the same as the Project due to required landscaping, parking, and associated improvements. This alternative was selected to evaluate a scenario that would reduce the total building size on the Project site, eliminate the high-cube cold storage use, and would not take into account of existing trips generation in order to reduced vehicle and truck trips and significant impacts associated with VMT.

The Reduced Intensity Alternative would avoid – the Project’s significant and unavoidable VMT impacts. The Reduced Intensity Area Alternative would reduce the Project’s less-than-significant impacts to air quality, energy, greenhouse gas emissions, noise, and utilities and service systems. All other impacts from the Reduced Intensity Alternative would be similar to the Project.

## **S.6 SUMMARY OF IMPACT, MITIGATION MEASURES, AND CONCLUSIONS**

Table S-1 provides a summary of the Project’s environmental impacts, as required by CEQA Guidelines Section 15123(a). Also presented are the mitigation measures recommended by the Lead Agency to further avoid adverse environmental impacts or to reduce their level of significance. After the application of all feasible mitigation measures, the Project would not result in any significant and unavoidable environmental effects.



Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
<b>4.1 Aesthetics</b>					
<b>Threshold a:</b> The Project would not substantially affect a scenic vista. The Project Site does not contain any designated scenic vistas or scenic corridors. The Project would not substantially affect views of the San Gabriel Mountains from nearby public viewing areas.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.
<b>Threshold b:</b> The Project Site does not have any special or unique scenic resources. Additionally, the Project site is not within the corridor of an officially designated State scenic highway. Implementation of the Project would not damage scenic resources within a State scenic highway.	No mitigation is required.	N/A	N/A	N/A	No Impact.
<b>Threshold c:</b> The Project Site is within an urbanized area. The Project is designed in accordance with the applicable design regulations, governing scenic quality, within the City's Zoning and Development Code. The Project would not conflict with applicable zoning and other regulations governing scenic quality.	No mitigation is required.	N/A	N/A	N/A	No Impact.
<b>Threshold d:</b> The Project would be required to adhere to the lighting requirements set forth in the City's Development Code. The City would confirm compliance with applicable lighting requirements during future review of building permit application/plans. Mandatory compliance with the City's Development Code would ensure that the Project would not introduce permanent design features that would adversely affect day or nighttime views in the area. Additionally, the Project's building materials would consist of low reflective materials that minimize glare.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.



Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
<b>4.2 Air Quality</b>					
<p><u>Threshold a:</u> The Project would be consistent with South Coast Air Quality Management District (SCAQMD) 2016 Air Quality Management Plan (AQMP) Consistency Criterion No. 1 because Project localized and regional construction and operational-source emissions would not exceed applicable SCAQMD regional significance thresholds and localized significance thresholds (LST).</p> <p>The Project would be consistent with 2016 AQMP Consistency Criterion No. 2.</p>	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.
<p><u>Threshold b:</u> Project-related activities would not exceed the applicable SCAQMD regional thresholds of significance during construction and operations. As such, Project-related emissions would not violate SCAQMD air quality standards or contribute to the non-attainment of ozone standards in the SCAB, and impacts would be less than significant.</p>	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.
<p><u>Threshold c:</u> Implementation of the Project would not: 1) exceed applicable SCAQMD localized criteria pollution emissions thresholds during construction and operation; 2) would not expose sensitive receptors to toxic air contaminants (i.e., DPM) that exceed the applicable SCAQMD carcinogenic and non-carcinogenic risk thresholds; and 3) would not cause or contribute to the formation of a CO "hot spot."</p>	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.
<p><u>Threshold d:</u> The Project would not produce air emissions that would lead to unusual or substantial construction-related or</p>	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.



**Table S-1 Mitigation Monitoring and Reporting Program**

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
operational-related odors. The Project would be required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance.					
<b>4.3 Cultural Resources</b>					
<u>Threshold a:</u> The Project Site does not have any historic resources as defined by CEQA Guidelines Section 15064.5. No historic resources are present that could be altered or destroyed by construction or operation of the Project.	No mitigation is required.	N/A	N/A	N/A	No Impact.
<u>Threshold b:</u> No known prehistoric resources are present on the Project Site and the likelihood of uncovering buried prehistoric resources on the Project Site is low due to the magnitude of historic ground disturbance on the Project Site. Nonetheless, the potential exists for Project-related construction activities to result in a direct and cumulatively-considerable impact to significant subsurface prehistoric archaeological resources should such resources to be discovered during Project-related construction activities.	<p><b>MM 4.3-1</b> Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities:</p> <p>a. The project applicant/lead agency shall retain a Native American Monitor from or approved by the Gabrieleño Band of Mission Indians – Kizh Nation. The monitor shall be retained prior to the commencement of any “ground-disturbing activity” for the subject project at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). “Ground-disturbing activity” shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching<sup>1</sup></p> <p>b. A copy of the executed monitoring agreement shall be submitted to the lead agency prior to the earlier</p>	Project Applicant, Project Archaeologist	City of Ontario Community Development Department (Planning)	Prior to the issuance of a grading permit.	Less-than-Significant Impact with Mitigation.

<sup>1</sup> Tribal monitoring shall cease once all ground disturbance activities have been completed with respect to the property or portion thereof. Example: Once excavation, grading, trenching, etc. have occurred tribal monitoring shall cease.



**Table S-1 Mitigation Monitoring and Reporting Program**

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	<p>of the commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity.</p> <p>c. The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or “TCR”), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the project applicant/lead agency upon written request to the Tribe.</p> <p>d. On-site tribal monitoring shall conclude upon the latter of the following (1) written confirmation to the Kizh from a designated point of contact for the project applicant/lead agency that all ground-disturbing activities and phases that may involve ground disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Kizh to the project applicant/lead agency that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact Kizh TCRs.</p> <p>e. Upon discovery of any TCRs, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and shall not resume until the</p>				



**Table S-1 Mitigation Monitoring and Reporting Program**

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	<p>discovered TCR has been fully assessed by the Kizh monitor and/or Kizh archaeologist. The Kizh will recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate, in the Tribe's sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural and/or historic purposes.</p> <p><b>MM 4.3-2</b> Unanticipated Discovery of Human Remains and Associated Funerary Objects:</p> <p>a. Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute.</p> <p>b. If Native American human remains and/or grave goods discovered or recognized on the project site, then all construction activities shall immediately cease. Health and Safety Code Section 7050.5 dictates that any discoveries of human skeletal material shall be immediately reported to the County Coroner and all ground disturbing activities shall immediately halt and shall remain halted until the coroner has determined the nature of the remains. If the coroner recognizes the human remains to be those of a Native American or has reason to believe they are Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission, and Public Resources Code Section 5097.98 shall be followed.</p>	<p>Project Archaeologist/ Native American Monitor</p>	<p>City of Ontario Community Development Department (Planning)</p>	<p>During grading and excavation operations.</p>	



**Table S-1 Mitigation Monitoring and Reporting Program**

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	<p>c. Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2).</p> <p>d. Construction activities may resume in other parts of the project site at a minimum of 200 feet away from discovered human remains and/or burial goods, if the Kizh determines in its sole discretion that resuming construction activities at that distance is acceptable and provides the project manager express consent of that determination (along with any other mitigation measures the Kizh monitor and/or archaeologist deems necessary). (CEQA Guidelines Section 15064.5(f))</p> <p>e. Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods. Any historic archaeological material that is not Native American in origin (non-TCR) shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, it shall be offered to a local school or historical society in the area for educational purposes.</p> <p>f. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.</p>				





**Table S-1 Mitigation Monitoring and Reporting Program**

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	<p><b>MM 4.3-3</b> Procedures for Burials and Funerary Remains:</p> <p>a. As the Most Likely Descendant (“MLD”), the Koo-nas-gna Burial Policy shall be implemented. To the Tribe, the term “human remains” encompasses more than human bones. In ancient as well as historic times, Tribal Traditions included, but were not limited to, the preparation of the soil for burial, the burial of funerary objects with the deceased, and the ceremonial burning of human remains.</p> <p>b. If the discovery of human remains includes four or more burials, the discovery location shall be treated as a cemetery and a separate treatment plan shall be created.</p> <p>c. The prepared soil and cremation soils are to be treated in the same manner as bone fragments that remain intact. Associated funerary objects are objects that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later; other items made exclusively for burial purposes or to contain human remains can also be considered as associated funerary objects. Cremations will either be removed in bulk or by means as necessary to ensure complete recovery of all sacred materials.</p> <p>d. In the case where discovered human remains cannot be fully documented and recovered on the same day, the remains will be covered with muslin cloth and a steel plate that can be moved by heavy equipment placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24-hour guard should be posted</p>	Project Archaeologist	City of Ontario Community Development Department (Planning)	During grading and excavation operations.	



**Table S-1 Mitigation Monitoring and Reporting Program**

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	<p>outside of working hours. The Tribe will make every effort to recommend diverting the project and keeping the remains in situ and protected. If the project cannot be diverted, it may be determined that burials will be removed.</p> <p>e. In the event preservation in place is not possible despite good faith efforts by the project applicant/developer and/or landowner, before ground-disturbing activities may resume on the project site, the landowner shall arrange a designated site location within the footprint of the project for the respectful reburial of the human remains and/or ceremonial objects.</p> <p>f. Each occurrence of human remains and associated funerary objects will be stored using opaque cloth bags. All human remains, funerary objects, sacred objects and objects of cultural patrimony will be removed to a secure container on site if possible. These items should be retained and reburied within six months of recovery. The site of reburial/repatriation shall be on the project site but at a location agreed upon between the Tribe and the landowner at a site to be protected in perpetuity. There shall be no publicity regarding any cultural materials recovered.</p> <p>g. The Tribe will work closely with the project's qualified archaeologist to ensure that the excavation is treated carefully, ethically and respectfully. If data recovery is approved by the Tribe, documentation shall be prepared and shall include (at a minimum) detailed descriptive notes and sketches. All data recovery data recovery-related forms of documentation shall be approved in advance by the Tribe. If any data recovery is performed, once complete, a final report shall be</p>				



**Table S-1 Mitigation Monitoring and Reporting Program**

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	submitted to the Tribe and the NAHC. The Tribe does NOT authorize any scientific study or the utilization of any invasive and/or destructive diagnostics on human remains.				
<b>Threshold c:</b> In the unlikely event that human remains are discovered during Project grading or other ground disturbing activities, the Project would be required to comply with the applicable provisions of California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097 <i>et seq.</i> Mandatory compliance with State law would ensure that any discovered human remains are appropriately treated and would preclude the potential for significant impacts.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.
<b>4.4 Energy</b>					
<b>Threshold a:</b> The amount of energy and fuel consumed by construction and operation of the Project would not be inefficient, wasteful, or unnecessary. Furthermore, the Project would not cause or result in the need for additional energy facilities or energy delivery systems.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.
<b>Threshold b:</b> The Project would not cause or result in the need for additional energy production or transmission facilities. The Project would not conflict with or obstruct the achievement of energy conservation goals within the State of California identified in State and local plans for renewable energy and energy efficiency.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.
<b>4.5 Geology and Soils</b>					
<b>Threshold a:</b> Implementation of the Project would not expose people or structures to	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.



Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
substantial direct or indirect adverse effects related to liquefaction or fault rupture. The Project Site is subject to seismic ground shaking associated with earthquakes; however, mandatory compliance with local and State regulatory requirements and building codes would ensure that the Project precludes potential hazards related to seismic ground shaking.					
<u>Threshold b:</u> Implementation of the Project would not result in substantial soil erosion or loss of topsoil. The Project Applicant would be required to obtain a NPDES permit for construction activities and adhere to a SWPPP, and prepare an erosion control plan to minimize water and wind erosion. Following completion of development, the Project's owner or operator would be required by law to implement a SWQMP during operation, which would preclude substantial erosion impacts in the long-term.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.
<u>Threshold c:</u> There is no potential for the Project's construction or operation to cause, or be impacted by, on- or off-site landslides or lateral spreading. Potential hazards associated with unstable soils would be precluded through mandatory adherence to the recommendations contained in the Site-specific geotechnical report during Project construction.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.
<u>Threshold d:</u> The Project Site contains soils with low susceptibility to expansion; therefore, the Project would not create substantial direct or indirect risks to life or property associated with the presence of expansive soils.	No mitigation is required.	N/A	N/A	N/A	No Impact.



**Table S-1 Mitigation Monitoring and Reporting Program**

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
<u>Threshold e:</u> No septic tanks or alternative wastewater disposal systems are proposed to be installed on the Project Site. Accordingly, no impact would occur associated with soil compatibility for wastewater disposal systems.	No mitigation is required.	N/A	N/A	N/A	No Impact.
<u>Threshold f:</u> The Project would not impact any known paleontological resource or unique geological feature. However, the Project Site is underlain by older alluvium soils with a high sensitivity for paleontological resources. Accordingly, construction activities on the Project Site have the potential to unearth and adversely impact paleontological resource that may be buried beneath the ground surface.	<p><b>MM 4.5-1</b> Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Ontario that a qualified paleontologist (“paleontologist”) has been retained by the Project Applicant or contractor to conduct monitoring of excavation activities in olde alluvium soils and has the authority to halt and redirect earthmoving activities in the event that suspected paleontological resources are unearthed.</p> <p><b>MM 4.5-2</b> The paleontologist shall conduct full-time monitoring during grading and excavation operations in undisturbed Holocene and late Pleistocene old alluvial fan deposits starting at a depth of five (5) feet below the existing ground surface. The paleontologist shall be equipped to salvage fossils if they are unearthed to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The paleontologist shall be empowered to temporarily halt or divert equipment to allow for the removal of abundant and large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if present, are determined upon exposure and examination by the paleontologist to have a low potential to contain or yield fossil resource.</p> <p><b>MM 4.5-3</b> Recovered specimens shall be properly prepared to a point of identification and permanent preservation, including screen washing sediments to</p>	<p>Project Applicant</p> <p>Project Contractor, Project Paleontologist</p> <p>Project Paleontologist</p>	<p>City of Ontario Community Development Department (Planning)</p> <p>City of Ontario Community Development Department (Planning)</p> <p>City of Ontario Community</p>	<p>Prior to the issuance of a grading permit.</p> <p>During grading and excavation operations.</p> <p>During grading and excavation operations.</p>	Less-than-Significant with Mitigation.



**Table S-1 Mitigation Monitoring and Reporting Program**

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	<p>recover small invertebrates and vertebrates, if necessary. Identification and curation of specimens into the collections of the Division of Geological Sciences, San Bernardino County Museum, shall be required for discoveries of significance as determined by the paleontological monitor.</p> <p><b>MM 4.5-4</b> A final monitoring and mitigation report of findings and significance shall be prepared, including lists of all fossils recovered, if any, and necessary maps and graphics to accurately record the original location of the specimens. The report shall be submitted to the City of Ontario prior to issuance of the first occupancy permit.</p>	Project Paleontologist	<p>Development Department (Planning)</p> <p>City of Ontario Community Development Department (Planning)</p>	Prior to issuance of first occupancy permit.	
<b>4.6 Greenhouse Gas Emissions</b>					
<u>Threshold a:</u> The Project would not exceed the significance threshold of 3,000 MTCO <sub>2</sub> e per year. As such, the Project would generate a less-than-significant volume of GHG emissions and would not have a significant impact on the environment.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.
<u>Threshold b:</u> The Project would be consistent with or otherwise would not conflict with, applicable regulations, policies, plans, and policy goals that would further reduce GHG emissions.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.
<b>4.7 Hazards and Hazardous Materials</b>					
<u>Threshold a &amp; b:</u> During Project construction and operation, mandatory compliance to federal, State, and local regulations would ensure that the proposed Project would not create a significant hazard to the environment due to routine transport, use, disposal, or upset of hazardous materials. However, based on the results of the Phase I/II ESA, PCE impacts potentially	<b>MM 4.7-1</b> Prior to the issuance of a grading permit, the Project Applicant shall prepare a Soil Management Plan (SMP). The SMP shall include explicit instructions for the appropriate handling, storage, and disposal of any known or potentially impacted soil during soil moving activities. The general contractor will be required to follow the requirements of the SMP and stop work to make notification to the environmental team if any potential	Project Applicant	City of Ontario Community Development Department (Planning & Building)	Prior to the issuance of a grading permit	Less-than-Significant Impact with Mitigation.



**Table S-1 Mitigation Monitoring and Reporting Program**

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
<p>associated with the use and storage of hazardous materials at Building B could contribute to vapor intrusion conditions on the Project Site and impacts would be potentially significant.</p>	<p>impacts are observed at any time the environmental team is not already on-site. The SMP also requires air monitoring activities to monitor the air downwind of the Project Site and appropriate Health and Safety Plans that will be employed by site workers. The SMP shall identify specific requirements intended to protect human health when soil in certain areas of known or suspected impacts are disturbed for any reason, including, without limitation, as a result of demolition, utility installation/repair, soil excavation, drilling, grading/filling activities, stockpile generation, soil management, loading, and transportation. Requirements of the SMP include:</p> <p>a. Health and Safety Plan (HASP): A HASP will be prepared and in effect for all activities associated with the SMP and other activities at the Project Site. Contractors working onsite are expected to be operating under their own health and safety plans.</p> <p>b. Environmental Monitoring: In accordance with SCAQMD Rules, air monitoring will be necessary in areas where potential PCE contaminated soil are to be disturbed. Air monitoring for dust may also be required in other areas. An air monitoring/health and safety professional will be present during relevant activities and responsibilities will include recording monitoring data on field sheets, which will be kept as part of Project documentation.</p> <p>c. Soil Monitoring: Soils impacted by PCE that are encountered during site redevelopment will be characterized and documented. The monitoring and sampling activities to be performed include:</p> <ul style="list-style-type: none"> <li>• Visual observation performed to detect areas of soil that may be impacted by PCE</li> </ul>				



**Table S-1 Mitigation Monitoring and Reporting Program**

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	<p>or other non-VOC hazardous materials, if encountered.</p> <ul style="list-style-type: none"> <li>• Screening for PCEs using field instruments to document new or previously undetected sources of PCEs.</li> <li>• Soil sampling and chemical testing performed to evaluate concentrations of PCE.</li> </ul> <p>d. Proper Soil Handling: If impacted soil is encountered, the area will be delineated as necessary with cones, caution tape, stakes, chalk, or flagging, and the area will not be disturbed further until an environmental professional is onsite for observation and determination of whether testing and/or excavation work is required. Stockpile staging areas will be delineated prior to the start of excavation. All excavations will conform to applicable regulations, including Cal/OSHA Construction Safety Orders. The specific equipment, means, and methods to be utilized for soil removal, handling, and disposition will be selected based on the nature of the work to be conducted and its location on the site. If excavation is conducted during the rainy season (October through April), provisions will need to be made to prevent offsite migration of sediment in runoff.</p> <p>e. Fugitive Dust and Vapor Control: Appropriate procedures will be implemented to control the generation of airborne dust by soil removal activities, including, but not limited to, the use of water as a dust suppressant or stopping activities that have the potential to generate fugitive dust in the event wind conditions change creating an uncontrollable condition.</p>				





**Table S-1 Mitigation Monitoring and Reporting Program**

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	<p>f. Excavation and Stockpiling: Impacted soil that is excavated and not immediately removed from the site will be stockpiled onsite and covered with plastic sheeting to control dust and minimize exposure to precipitation and wind. If a stockpile remains onsite during the rainy season, a perimeter sediment barrier, constructed of material, such as straw bales or fiber roll, will also be installed. The stockpiles will be inspected biweekly at a minimum. During stockpile removal, only the working face of the stockpile will be uncovered. If the stockpiled impacted soil is to be transported offsite for disposal or recycling, the soil will be profiled for waste characteristics. Soil samples will be analyzed for parameters required by the disposal/recycling facility.</p> <p>g. Responding to Unknown Conditions: If previously unknown impacted soil is suspected (based on visual staining, odors, photo ionization detector readings, or other observations), the area will be delineated and construction activity will cease in this area, and sampling of the unknown material will occur using USEPA methodology. Analysis will be conducted for TPH, metals, and/or VOCs, as appropriate. Analytical results will be compared to applicable regulatory screening levels. Based on this comparison, a determination will be made regarding soil disposition (reuse on-site, off-site transport, and disposal/recycling, etc.). Additionally, if any UST or other subsurface features are encountered, a similar approach will be taken, and appropriate permitting, as necessary, will be obtained for the removal of the feature(s). Any permitted removals will be conducted with appropriate regulatory oversight, documentation, and reporting.</p>				



**Table S-1 Mitigation Monitoring and Reporting Program**

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	<p>h. Imported fill: As appropriate, offsite soils brought to the site for use as backfill (import fill), if necessary, will be tested in general conformance with the DTSC Information Advisory Clean Imported Fill Material document.</p> <p>i. Post-construction Requirements: If contaminated soil is left in place, the location of this soil will be surveyed or recorded by use of geographic positioning system equipment. Following the completion of construction, excavation, and disposition activities, a summary report will be prepared. The report will include a summary of activities, locations of soil sources and final disposition of contaminated soil, and estimated quantities of materials. Additionally, removal of any USTs or other subsurface features, if encountered, will be conducted under appropriate permits (if any) and documented in applicable reports for submittal to the Ontario Fire Department, or other regulatory agency, as appropriate.</p>				
<p><u>Threshold c:</u> The Project site is not located within one-quarter mile of any existing or proposed school. Accordingly, the Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Impacts to schools located more than one-quarter mile of the Project site would be less than significant.</p>	<p>No mitigation is required.</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>No Impact.</p>
<p><u>Threshold d:</u> Current and previous uses of the Project Site are included in several listings. No violations indicating a spill or a release were identified in the listings. Therefore, these listings are not considered</p>	<p>No mitigation is required.</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>Less-than-Significant Impact.</p>



**Table S-1 Mitigation Monitoring and Reporting Program**

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
to represent a significant environmental concern and impacts would be less than significant.					
<u>Threshold e:</u> The Project is consistent with the restrictions and requirements of the ONT ALUCP. As such, the Project would not result in an airport safety hazard for people residing or working in the Project area.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.
<u>Threshold f:</u> The Project Site does not contain any emergency facilities nor does it serve as an emergency evacuation route. During construction and long-term operation, adequate emergency vehicle access is required to be provided. Accordingly, implementation of the Project would not impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.
<u>Threshold g:</u> The Project Site is not located in close proximity to wildlands or areas with high fire hazards. Thus, the Project would not expose people or structures to a significant wildfire risk.	No mitigation is required.	N/A	N/A	N/A	No Impact.
<b>4.8 Hydrology and Water Quality</b>					
<u>Threshold a:</u> The Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Adherence to a SWPPP and WQMP is required as part of the Project's implementation to address construction- and operational-related water quality.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.
<u>Threshold b:</u> The Project would not physically impact any of the major groundwater recharge facilities in the Chino	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.



**Table S-1 Mitigation Monitoring and Reporting Program**

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Groundwater Basin. The Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project would impede sustainable groundwater management of the Basin.					
<u>Threshold c:</u> The Project would be required to comply with applicable water quality regulatory requirements to minimize erosion and siltation. Additionally, the Project would not result in flooding on- or off-site or impede/redirect flood flows. Lastly, the Project would not create or contribute runoff that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.
<u>Threshold d:</u> The Project Site would not be subject to inundation from tsunamis or seiches. The Project Site is adjacent to an area with potential inundation from debris basins. The probability of dam failure is very low, and Ontario has never been impacted by a major dam failure. In addition, dam owners are required to maintain emergency action plans that include procedures for damage assessment and emergency warnings.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.
<u>Threshold e:</u> The Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.
<b>4.9 Noise</b>					
<u>Threshold a:</u> The Project would generate short-term construction and long-term operational noise but would not generate	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.



**Table S-1 Mitigation Monitoring and Reporting Program**

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
noise levels that exceed the threshold standards.					
<u>Threshold b:</u> The Project's construction and operational activities would not result in a perceptible groundborne vibration or noise.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.
<u>Threshold c:</u> The proposed Project would be compatible with noise levels from the Ontario International Airport (ONT) and operation of the Project would not expose future employees on the Project Site to excessive noise levels.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.
<b>4.10 Transportation</b>					
<u>Threshold a:</u> The Project would not conflict with an applicable program, plan, ordinance or policy addressing the circulation system.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.
<u>Threshold b:</u> The Project's vehicle traffic would exceed the City's VMT per service population impact threshold for both the baseline and cumulative conditions.	<b>MM 4.10-1</b> Prior to the issuance of a certificate of occupancy, the building operator shall prepare and submit for approval to the City of Ontario Community Development Department a Transportation Demand Management Program (TDMP). The TDMP shall specify measures that the building operator will commit to implementing in an effort to reduce vehicle miles traveled for its on-site employees. The TDMP shall include provisions, incentives, and programs for employee ridesharing programs, carpools, vanpools, transit use, bike travel, avoidance of peak periods of traffic congestion, and on-site parking preferences for zero-emission vehicles, among other items that have reasonable potential of reducing employee reliance on single-occupant gas-powered vehicles during peak time travel periods (rush hours).	Building Operator	City of Ontario Community Development Department (Planning)	Prior to the issuance of a certificate of occupancy	Significant and Unavoidable Impact.
<u>Threshold c:</u> The Project would not introduce any significant transportation safety hazards due to a design feature or incompatible use.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.



**Table S-1 Mitigation Monitoring and Reporting Program**

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
<p><u>Threshold d:</u> Adequate emergency access would be provided to the Project Site during construction and long-term operation. The Project would not result in inadequate emergency access to the Site or surrounding properties.</p>	<p>No mitigation is required.</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>No Impact.</p>
<p><b>4.11 Tribal Cultural Resources</b></p>					
<p><u>Threshold a:</u> The Project Site does not contain any recorded, significant tribal cultural resource sites; therefore, the Project would not cause a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources or a local register of historical resources. Nonetheless, Project construction activities have the potential to unearth and adversely impact tribal cultural resources that may be buried at the Project Site.</p>	<p>MM 4.3-1 through 4.3-3 shall apply.</p>	<p>Refer to Cultural Resources Threshold b.</p>	<p>Refer to Cultural Resources Threshold b.</p>	<p>Refer to Cultural Resources Threshold b.</p>	<p>Less-than-Significant Impact with Mitigation.</p>
<p><b>4.12 Utilities and Service Systems</b></p>					
<p><u>Threshold a:</u> The physical environmental effects associated with installing the Project's proposed connections to existing utility infrastructure, as well as installation of on-site and off-site storm water management, water, and wastewater infrastructure have been evaluated throughout this EIR and no adverse impacts specific to the provision utilities services have been identified. Mitigation measures are identified, where necessary, for construction-related effects that would reduce construction-phase impacts to the maximum feasible extent. Impacts would be less than significant.</p>	<p>No mitigation is required.</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>Less-than-Significant Impact.</p>



**Table S-1 Mitigation Monitoring and Reporting Program**

THRESHOLD	MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
<u>Threshold b:</u> Based on the information provided in the OMUC's UWMP, OMUC has sufficient water supplies available to serve the Project in normal, dry, and multiple dry years and impacts would be less than significant	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.
<u>Threshold c:</u> The Project's proposed wastewater generation would not exceed the capacity of the RP-1. The Project's wastewater generation would represent a nominal increase in wastewater treatment demand and impacts would be less than significant.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.
<u>Threshold d:</u> The Project's proposed solid waste disposal needs would be adequately accommodated by existing landfills serving the City. Therefore, the Project would have less than significant impacts related to solid waste.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact.
<u>Threshold e:</u> The Project would comply with all applicable federal, State, and local statutes and regulations pertaining to management and reduction of solid waste. No impacts associated with regulatory compliance would occur.	No mitigation is required.	N/A	N/A	N/A	No Impact.



## 1.0 INTRODUCTION

The California Environmental Quality Act (CEQA) requires that all public agencies within the State of California having land use approval over project activities that have the potential to adversely affect the quality of the environment, regulate such activities so that impacts to the environment can be prevented to the extent feasible. Such activities are reviewed and monitored through the CEQA compliance process, as provided in the CEQA Statute (Public Resources Code Sections 21000- 21177, as amended) and the CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387, as amended).

Under CEQA, if there is substantial evidence that a project may have a significant effect on the physical environment, an Environmental Impact Report (EIR) must be prepared (CEQA Guidelines Section 15064(a)(1)). This document serves as an EIR for the proposed 5355 East Airport Drive Project. For purposes of this EIR, the term “Project” refers to all actions associated with implementation of the 5355 East Airport Drive project including its planning, construction, and ongoing operations. The term “Project Applicant” used herein refers to Prologis, Inc., which is the entity that submitted applications to the City of Ontario to entitle the Project. The term “Project Site” refers to the property upon which the Project is proposed. The public agency with the principal responsibility for carrying out or approving a project or the first public agency to make a discretionary decision to proceed with a proposed project should ordinarily act as the Lead Agency pursuant to CEQA Guidelines Sections 15050-15051. The term “Lead Agency” used herein refers to the City of Ontario. Throughout this document, the terms “Draft EIR” and “Final EIR” may be used interchangeably since both are part of the ultimate EIR record; however, “Draft EIR” may be used specifically when referring to information provided in the volume made available for the CEQA-required 45-day public review period.

### 1.1 PURPOSES OF CEQA AND THIS EIR

As stated by CEQA Guidelines Section 15002(a), the basic purposes of CEQA are to:

- Inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities;
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.





The purposes of this EIR are to inform public agency decision-makers and the general public about the potentially significant environmental effects of the Project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the Project that would feasibly attain most of the basic Project objectives but would avoid or substantially lessen its significant environmental effects (CEQA Guidelines Section 15121(a)). This EIR is an informational document that represents the independent judgment of the City of Ontario. Staff in the City’s Planning Department reviewed and, as necessary, directed revisions to all submitted drafts, technical studies, and reports supporting this EIR for consistency with City policies and requirements, to ensure that this EIR reflects the City of Ontario’s independent judgment.

## **1.2 SUMMARY OF THE PROJECT EVALUATED IN THIS EIR**

As more fully described in EIR Subsection 3.0, *Project Description*, the Project Applicant submitted applications to the City of Ontario for a Development Plan (PDEV22-017) to allow for the construction and operation of one warehouse distribution facility on an approximately 13.08-acre Project property (“Project Site”). The Project Site is located at 5355 East Airport Drive (APN: 0238-052-29 and 0238-052-20) in the City of Ontario. Under existing conditions, the Project Site is developed with a grain processing operation and a corn storage and distribution facility. The Project would require demolition of the existing buildings and structures, on-site landscaping, and on-site parking. The Project would entail redevelopment of the property and the construction and operation of a building with 270,337 square feet (s.f.) of interior floor area. The Project’s design also includes the installation of associated site improvements, including drive aisles, landscaping, utility infrastructure, underground storm drain detention facilities, exterior lighting, walls/fencing, and signage as well as site-adjacent improvements to East Airport Drive.

One discretionary approval for the Project is under consideration by the City of Ontario. Refer to EIR Subsection 3.0, *Project Description*, for a more comprehensive description of the Project’s Development Plan application.

- **Development Plan (PDEV22-017)** proposes a redevelopment plan for the Project Site that provides for the construction and operation of one warehouse building with approximately 270,337 s.f. of building floor area. The Site Plan application depicts a layout of the building and associated physical design features, architectural design, and a landscaping plan.

## **1.3 CEQA COMPLIANCE PROCESS**

As the first step in the CEQA-compliance process, on September 1, 2022, the City of Ontario filed a Notice of Preparation (NOP) with the California Office of Planning and Research (State Clearinghouse) and the San Bernardino County Clerk to indicate that an EIR would be prepared to evaluate the Project’s potential to impact the environment. The NOP also was distributed to potential responsible and trustee agencies and other interested parties for a 30-day public review period that commenced on September 1, 2022. The purpose of distributing the NOP was to solicit responses in



order to assist the City in identifying the full scope and range of potential environmental concerns associated with the Project so that these issues could be fully examined in this EIR.

In addition, the City of Ontario held a publicly-noticed EIR Scoping Meeting on September 13, 2022 using an internet-based virtual platform (Zoom). At the Scoping Meeting, the City provided information about the proposed Project, the intended scope of the EIR, and provided opportunity for public agencies and members of the general public to comment on the scope of environmental issues to be addressed in this EIR.

The NOP, public review distribution list, and written comments received by the City during the NOP public review period are provided in *Technical Appendix A* to this EIR. Substantive issues raised in response to the NOP are summarized below in Table 1-1, *Summary of NOP and Scoping Meeting Comments*. The purpose of Table 1-1 is to present a summary of the environmental topics that were identified by public agencies, interested parties, and members of the general public to be of primary interest. Table 1-1 does not list every comment received by the City during the NOP review period. Regardless of whether or not an environmental or CEQA-related comment is listed in Table 1-1, all relevant comments received in response to the NOP and the EIR Scoping Meeting are addressed in this EIR.

**Table 1-1 Summary of NOP and Scoping Meeting Comments**

COMMENTS	DATE	COMMENT	LOCATION IN EIR WHERE COMMENT IS ADDRESSED
<b>State and Local Agencies</b>			
Native American Heritage Commission (NAHC)	September 8, 2022	- Request to provide consultation with California Native American Tribes that are traditionally and culturally affiliated with the geographic area of the proposed Project, in compliance with AB 52 and SB 18.	Section 4.11, <i>Tribal Cultural Resources</i>
South Coast Air Quality Management District (SCAQMD)	September 30, 2022	- Recommendation to use the CalEEMod land use emissions software when preparing the Project's air quality analysis. - Request to quantify criteria pollutant emissions and compare the results to applicable SCAQMD regional and localized significance thresholds (LSTs). - Request to identify any potential adverse air quality impacts that could occur from all phases of the Project (including construction and operation) and all air pollutant sources related to the Project. - Request that the EIR disclose the potential for the Project to result in adverse health effects related to diesel emissions, performing a mobile source health risk assessment.	Section 4.2, <i>Air Quality</i>



**Table 1-1 Summary of NOP and Scoping Meeting Comments**

COMMENTER	DATE	COMMENT	LOCATION IN EIR WHERE COMMENT IS ADDRESSED
		<ul style="list-style-type: none"> <li>- Recommendation to identify SCAQMD as a Responsible Agency, in the event a permit is required from SCAQMD.</li> <li>- Request that the Project incorporate design/mitigation measures to reduce any significant air pollutant emissions.</li> <li>- Recommendation for the lead agency to review Rule 2305 to determine the potential WAIRE Points Compliance Obligation for future operators and explore whether additional project requirements and CEQA mitigation measures can be identified and implemented at the Project that may help future warehouse operators meet their compliance obligation.</li> </ul>	
<b>State and Local Organizations</b>			
<p>Californians Allied for a Responsible Economy (CARE CA)</p>	<p>September 13 and 29, 2022</p>	<ul style="list-style-type: none"> <li>- Request to address potential construction-related environmental issues including air pollution, noise, GHG emissions, and onsite soil contamination.</li> <li>- Request to provide reasonable range of alternatives.</li> <li>- Request to provide details of all proposed future uses.</li> <li>- Request to study full mitigation of all air quality and GHG impacts that will be caused by the Project.</li> <li>- Request to provide a mobile source Health Risk Assessment and provide impacts from particulate matter from the diesel trucks.</li> <li>- Request to provide effective and enforceable mitigation measures.</li> </ul>	<p>Section 4.2, <i>Air Quality</i>, Section 4.5 <i>Geology and Soils</i>, Section 4.6, <i>Greenhouse Gas Emissions</i>, and Section 4.9, <i>Noise</i></p>

In consideration of the comments received by the City in response to the NOP, this EIR provides a detailed analysis of the Project’s potential to cause adverse effects under the following topic areas:

- Aesthetics
- Air Quality
- Cultural Resources
- Energy
- Geology & Soils
- Greenhouse Gas Emissions
- Hazards & Hazardous Materials
- Hydrology & Water Quality
- Noise
- Transportation
- Tribal Cultural Resources
- Utilities & Service System

The analysis related to the above topics is provided in EIR Section 4.0, *Environmental Analysis*.



The City concluded that the Project would clearly result in no or less-than-significant impacts to several environmental topic areas, including: Agriculture and Forestry Resources; Biological Resources, Land Use and Planning; Mineral Resources; Population and Housing; Public Services; Recreation; and Wildfire. Potential effects to these topic areas are summarized in EIR Section 5.0, *Other CEQA Considerations*.

As stated in CEQA Guidelines Section 15161, a Project EIR should "...focus primarily on the changes in the environment that would result from the development project" and "...examine all phases of the project including planning, construction, and operation." Acting as Lead Agency, the City of Ontario will consider the following items regarding the proposed Project and this EIR: a) evaluation of this EIR to determine if the physical environmental impacts of the Project are adequately disclosed; b) assessment of the adequacy and feasibility of identified mitigation measures; c) consideration of alternatives to the Project that could reduce or eliminate significant environmental effects of the Project; and, if necessary, d) consideration of Project benefits that override the Project's unavoidable and unmitigable significant effects on the environment.

The City of Ontario will release the Draft EIR for a minimum 45-day public review period and make the Draft EIR and its supporting technical appendices available for review in electronic form on the City's website and in paper copy at Ontario City Hall, 303 East B Street, Ontario, California 91764, during the City's regular business hours. The Draft EIR and its supporting technical appendices were made available for review on the City website at:

[www.ontarioca.gov/Planning/Reports/EnvironmentalImpact](http://www.ontarioca.gov/Planning/Reports/EnvironmentalImpact).

During the 45-day review period, comments on the content of the Draft EIR can be submitted to:

Thomas Grahn  
City of Ontario Planning Department  
303 East B Street  
Ontario, CA 91764  
Phone: (909) 395-2413  
Email: [TGrahn@ontarioca.gov](mailto:TGrahn@ontarioca.gov)

Public comments should be focused "on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated" (CEQA Guidelines Section 152049(a)).

Following the Draft EIR's 45-day public review period, the City will then respond in writing to all submitted comments pertaining to an environmental effect and publish a Final EIR. Before taking action to approve the Project, the City of Ontario (serving as the Lead Agency) has the obligation to: (a) ensure this EIR has been completed in accordance with CEQA; (b) review and consider the information contained in this EIR as part of its decision making process; (c) make a statement that this



EIR reflects the City of Ontario's independent judgment; (d) ensure that all significant effects on the environment are avoided or substantially lessened where feasible; and, if necessary (e) make written findings for each unavoidable significant environmental effect stating the reasons why mitigation measures or project alternatives identified in this EIR are infeasible and citing the specific benefits of the proposed Project that outweigh its unavoidable adverse effects (CEQA Guidelines Sections 15090-15093).

A Project-related decision-making hearing will be subject to a noticed public hearing held before the Planning Commission, which will include consideration of the information contained in the Final EIR and the associated administrative record. During the decision-making processes, the Project and its design features, objectives, merits, environmental consequences, and socioeconomic factors, among other information contained in the Project's administrative record, will be considered by the City of Ontario. If the Final EIR is certified and Development Plan PDEV22-017 is approved, the City of Ontario and other public agencies with permitting authority over all, or portions of, the Project would be able to rely on the Final EIR as part of their permitting and approval processes to evaluate the environmental effects of the Project as they pertain to the approval or denial of applicable permits. City staff would also rely on the certified Final EIR to subsequently conduct administrative level reviews for implementing permits and approvals.

## 1.4 CONTENT AND ORGANIZATION OF THIS EIR

This EIR contains all the information required to be included in an EIR as specified by CEQA (California Public Resources Code, Section 21000 *et. seq.*) and the CEQA Guidelines (California Code of Regulations, Title 14, Chapter 5). In summary, the content and format of this EIR are as follows:

- **Section S.0, Executive Summary** provides an overview of the EIR and CEQA process and provides a brief Project Description, which includes summaries of the Project's objectives, the location and regional setting of the Project Site, and potential alternatives to the Project as required by CEQA. The Executive Summary also provides a summary of the Project's impacts, mitigation measures, and conclusions, in a table that forms the basis of the Project's Mitigation, Monitoring, and Reporting Program (MMRP).
- **Section 1.0, Introduction** provides introductory information about the CEQA process and the responsibilities of the City in its role as Lead Agency, a brief Project Description, the purpose of the EIR, and an overview of the EIR's format.
- **Section 2.0, Environmental Setting** describes the environmental setting, including descriptions of the Project Site's physical conditions and surrounding context used as the baseline for analysis in the EIR.
- **Section 3.0, Project Description**, serves as the EIR's Project Description for purposes of CEQA and contains a level of specificity commensurate with the level of detail proposed by the Project, including the summary requirements pursuant to CEQA Guidelines Section 15123. This Section provides a detailed description of the Project, including its location,



purpose, main objectives, design features, construction characteristics, and operational characteristics expected over the Project's lifetime. In addition, the discretionary actions required of the City of Ontario and other government agencies to authorize implementation of the Project are discussed.

- **Section 4.0, Environmental Analysis**, provides an analysis of potential direct, indirect, and cumulative impacts that may occur with implementation of the Project. A determination concerning the significance of each impact is addressed and mitigation measures are presented when warranted. The environmental changes identified in Section 4.0 and throughout this EIR are referred to as "effects" or "impacts" interchangeably. CEQA Guidelines Section 15358 describe the terms "effects" and "impacts" as being synonymous.

In each Subsection of Section 4.0, the existing conditions pertaining to the subject area being analyzed are discussed accompanied by a specific analysis of physical impacts that may be caused by implementing the Project. Impacts are evaluated on a direct, indirect, and cumulative basis. Direct impacts are those that would occur directly as a result of the Project. Indirect impacts represent secondary effects that would result from Project implementation. Cumulative effects are defined in CEQA Guidelines Section 15355 as "...two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts."

The analyses in Section 4.0 are based in part upon technical reports that are included in this EIR. Information also is drawn from other sources of analytical materials that directly or indirectly relate to the Project and are cited in Section 7.0, *References*.

Where the analysis demonstrates that a physical adverse environmental effect may or would occur without undue speculation, feasible mitigation measures are recommended to reduce or avoid the significant effect. Mitigation measures must be fully enforceable, have an essential nexus to a legitimate governmental interest, and be "roughly proportional" to the impacts of the Project. The discussion then indicates whether the identified mitigation measures would reduce impacts to below a level of significance. In most cases, implementation of the mitigation measures would reduce the adverse environmental impacts to below a level of significance. If mitigation measures are not available or feasible to reduce an identified impact to below a level of significance, the environmental effect is identified as a significant and unavoidable adverse impact, for which a Statement of Overriding Considerations would need to be adopted by the City of Ontario pursuant to CEQA Guidelines Section 15093.

- **Section 5.0, Other CEQA Considerations**, includes specific topics that are required by CEQA. These include a summary of the Project's significant and unavoidable environmental effects, a discussion of the significant and irreversible environmental changes that would occur should the Project be implemented, as well as potential growth-



inducing impacts of the Project. Section 5.0 also includes a discussion of the potential environmental effects that were found not to be significant during preparation of this EIR.

- **Section 6.0, Project Alternatives** describes and evaluates alternatives to the Project that could reduce or avoid the Project’s adverse environmental effects. CEQA does not require an EIR to consider every conceivable alternative to the Project but rather to consider a reasonable range of alternatives, including a “No Project” alternative, that will foster informed decision making and public participation.
- **Section 7.0, References**, cites all reference sources used in preparing this EIR and lists the agencies and persons that were consulted in preparing this EIR. Section 7.0 also lists the persons who authored or participated in preparing this EIR.

CEQA requires that an EIR contain, at a minimum, certain specified content. Table 1-2, *Location of CEQA Required Topics*, provides a quick reference guide for locating the CEQA-required sections within this document.

**Table 1-2 Location of CEQA Required Topics**

<b>CEQA REQUIRED TOPIC</b>	<b>CEQA GUIDELINES REFERENCE</b>	<b>LOCATION IN THIS EIR</b>
Table of Contents	§ 15122	Table of Contents
Summary	§ 15123	Section S.0
Project Description	§ 15124	Section 3.0
Environmental Setting	§ 15125	Section 2.0
Consideration and Discussion of Environmental Impacts	§ 15126	Section 4.0
Significant Environmental Effects Which Cannot be Avoided if the Project is Implemented	§ 15126.2(c)	Section 4.0 & Subsection 5.1
Significant Irreversible Environmental Changes Which Would be Caused by the Project Should it be Implemented	§ 15126.2(d)	Subsection 5.2
Growth-Inducing Impact of the Project	§ 15126.2(e)	Subsection 5.3
Consideration and Discussion of Mitigation Measures Proposed to Minimize Significant Effects	§ 15126.4	Section 4.0 & Table S-1
Consideration and Discussion of Alternatives to the Project	§ 15126.6	Section 6.0
Effects Not Found to be Significant	§ 15128	Subsection 5.4
Organizations and Persons Consulted	§ 15129	Section 7.0 & Technical Appendices
Discussion of Cumulative Impacts	§ 15130	Section 4.0
Energy Conservation	§ 15126.2(b) & Appendix F	Subsection 4.4



## 1.5 INCORPORATION BY REFERENCE

CEQA Guidelines Section 15147 states that the “information contained in an EIR shall include summarized...information sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public,” and that the “placement of highly technical and specialized analysis and data in the body of an EIR shall be avoided through the inclusion of supporting information and analyses as appendices to the main body of the EIR.” CEQA Guidelines Section 15150 allows for the incorporation “by reference all or portions of another document... [and is] most appropriate for including long, descriptive, or technical materials that provide general background but do not contribute directly to the analysis of a problem at hand.” The purpose of incorporation by reference is to assist the Lead Agency in limiting the length of an EIR. Where this EIR incorporates a document by reference, the document is identified in the body of the EIR, citing the appropriate section(s) of the incorporated document and describing the relationship between the incorporated part of the referenced document and this EIR. Refer to EIR Section 7.0, *References*, for a list of documents incorporated into this EIR by reference.

This EIR also relies on a number of Project-specific technical studies that are bound separately as Technical Appendices. The individual technical studies, reports, and supporting documentation that comprise the Technical Appendices are as follows:

- A: Notice of Preparation (NOP) and NOP Comment Letters
- B1: Air Quality Impact Analysis
- B2: Health Risk Assessment
- C: Cultural Records Search
- D: Energy Analysis
- E1: Geotechnical Investigation
- E2: Infiltration Report
- F: Greenhouse Gas Analysis
- G: Phase I and II Environmental Site Assessment
- H1: Preliminary Hydrology Report
- H2: Preliminary Water Quality Management Plan
- I: Noise Impact Analysis
- J: Vehicle Miles Traveled Analysis
- K: Trip Generation Assessment

As discussed above, the Technical Appendices are available for review at the City of Ontario Planning Department, 303 East B Street, Ontario, CA 91764, during the City’s regular business hours and can be accessed on the City’s website during the Draft EIR’s public review period at the following address:

<https://www.ontarioca.gov/Planning/Reports/EnvironmentalImpact>

Other reference sources that are incorporated into this EIR by reference are listed in Section 7.0, *References*, of this EIR. In most cases, documents or websites not included in the EIR’s Technical





Appendices are cited by a link to the online location where the document/website can be viewed for convenience. References relied upon by this EIR and cited in Section 7.0 can be requested in electronic form by contacting the City Planning Department or can be viewed in electronic format at the City of Ontario Planning Department, 303 East B Street, Ontario, CA 91764, during the City's regular business hours.

## 1.6 RESPONSIBLE AND TRUSTEE AGENCIES

The California Public Resources Code (Section 21104) requires that all EIRs be reviewed by responsible and trustee agencies (see also CEQA Guidelines Sections 15082 and 15086(a)). As defined by CEQA Guidelines Section 15381, "the term 'Responsible Agency' includes all public agencies other than the Lead Agency that have discretionary approval power over the project." A "Trustee Agency" is defined in CEQA Guidelines Section 15386 as "a state agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California." The Project would require approval from the following Trustee and Responsible Agencies:

- Santa Ana Regional Water Quality Control Board (RWQCB) is identified as a Trustee Agency for the Project that is responsible for issuance of a National Pollutant Discharge Elimination System (NPDES) Permit to ensure that during and after Project construction, on-site water flows do not result in siltation, other erosional actions, or degradation of surface or subsurface water quality.
- South Coast Air Quality Management District (SCAQMD) is identified as a Responsible Agency pertaining to the issuance of construction-related permits.
- Ontario Municipal Utilities Company (OMUC) is a Responsible Agency pertaining to the approval of the Project's proposed water connections.
- Inland Empire Utilities Agency (IEUA) is a Responsible Agency pertaining to the approval of the Project's proposed sewer connections.
- The San Bernardino County Flood Control District (SBCFCD) is a Responsible Agency pertaining to the approval of the Project's proposed drainage improvements.
- Southern California Edison (SCE) is identified as a Responsible Agency pertaining to the installation of new SCE facilities/connections to service the Project.
- Southern California Gas Company (SoCal Gas) is identified as a Trustee Agency pertaining to the installation of new Southern California Gas Company facilities/connections to service the Project.

There are no other known Trustee Agencies or Responsible Agencies identified for the Project. Regardless, this EIR can be used by any Trustee Agency or Responsible Agency, whether identified in this EIR or not, as part of their decision-making processes in relation to the proposed Project.



## **1.7 AREAS OF CONTROVERSY**

Substantive issues raised in response to this EIR's NOP were previously summarized in Table 1-1. Based on comments received in response to the NOP, concerns were raised regarding potential impacts to the environment pertaining to the topics of: air quality geology and soils, greenhouse gases, and noise. No other areas of concern or controversy were identified pertaining to the proposed Project, beyond comments regarding the Project's potential environmental effects summarized in Table 1-1.

## **1.8 ISSUES TO BE RESOLVED BY THE DECISION-MAKING BODY**

The primary issue to be resolved by the decision-making body for the proposed Project involves the Project's significant and unavoidable impacts in the environmental topic areas of vehicle miles traveled (VMT). The City of Ontario Planning Commission will evaluate whether the mitigation measures (Transportation Demand Management Program) presented in this document to reduce the Project's unavoidable VMT impact adequately reduce the Project's impact to the maximum feasible extent. The Planning Commission also will make a determination as to whether the Project's benefits outweigh the adverse environmental effect in support of adopting a Statement of Overriding Considerations pursuant to CEQA Guidelines Section 15093.



## 2.0 ENVIRONMENTAL SETTING

### 2.1 REGIONAL SETTING AND LOCATION

The approximately 13.08-acre Project Site is located within the City of Ontario, which is located in the southwestern portion of San Bernardino County, California. Ontario is located east of the cities of Montclair and Chino and unincorporated area of San Bernardino County, west of the City of Fontana and unincorporated land in San Bernardino County, north of the Cities of Chino, Eastvale, and Jurupa Valley, and south of the cities of Upland and Rancho Cucamonga. The Project Site is located approximately 0.57-mile east of Interstate 15 (I-15) and approximately 0.28-mile south of Interstate 10 (I-10). The Site's location in a regional context is shown on Figure 3-1, *Regional Map*, in Section 3.0, *Project Description*.

The Project Site is located in an urbanized area of southern California commonly referred to as the "Inland Empire." The Inland Empire is an approximate 28,000 square-mile region comprising San Bernardino County, Riverside County, and eastern Los Angeles County.

### 2.2 LOCAL SETTING AND LOCATION

At the local scale, the Project Site is located at 5355 East Airport Drive (APN: 0238-052-29 and 0238-052-20). The Project Site is bordered by East Airport Drive to the south, industrial uses to the east and west, railroad tracks to the north. Refer to Figure 3-2, *Vicinity Map* and Figure 3-3, *USGS Topographic Map* in Section 3.0, *Project Description*.

The area immediately surrounding the Project Site contains a variety of industrial uses. The census tract containing the Project Site (Census Tract 6071012700) is ranked by the State as being in the 65th percentile for pollution burden which, based on the Census Tract's demographic characteristics, results in the Office of Environmental Health Hazard Assessment (OEHHA) ranking the area in the 88th percentile of communities that are disproportionately burdened by multiple sources of pollution (OEHHA, 2022).

OEHHA's California Communities Environmental Health Screening Tool: CalEnviroScreen 4.0, is a screening methodology that the State uses to identify California communities that are disproportionately burdened by multiple sources of pollution. The CalEnviroScreen 4.0 indicators for the Project Site's Census Tract are shown below.



**Table 2-1 CalEnviroScreen Indicators for Census Tract 6071012700**

Indicator	% Burden	Indicator	% Burden
<b>Exposures</b>		<b>Environmental Effects</b>	
Ozone:	91	Cleanup Sites	0
PM 2.5:	96	Groundwater Threats	31
Diesel PM:	97	Hazardous Waste	79
Pesticides:	0	Impaired Waters	0
Toxic Releases:	79	Solid Waste	70
Traffic:	89	<b>Sensitive Populations</b>	
Drinking Water:	93	Asthma	47
Lead from Housing:	9	Low Birth Weight	57
		Cardiovascular Disease	67
		<b>Socioeconomic Factors</b>	
		Education	40
		Linguistic Isolation	18
		Poverty	24
		Unemployment	54
		Housing Burden	32

Source: (OEHHA, 2022)

Exposure indicators are based on measurements of different types of pollution that people may encounter. Environmental effects indicators are based on the locations of toxic chemicals in or near communities. Sensitive population indicators measure the number of people in a community who may be more severely affected by pollution because of their age or health. Socioeconomic factor indicators are conditions that may increase people’s stress or make healthy living difficult and cause them to be more sensitive to pollution’s effects. As indicated in Table 2-1, for the Project Site’s Census Tract, the highest environmental exposures (over 75%) are from ozone (O<sub>3</sub>), fine particulate matter (PM<sub>2.5</sub>), diesel particulate matter (DPM), toxic releases, drinking water, and hazardous waste. There are no population and socioeconomic factors over 75%. This data is consistent with the industrial nature of the Project Site and its surrounding area and low number of residents (population) living near the Project Site in the census tract.

Even though the Project site is not located within a census tract that receives the highest 25% of overall scores in CalEnviroScreen 4.0, the Project site is considered a SB 535 Disadvantaged Community identified by the California Environmental Protection Agency (CalEPA) due to the census tract being identified as a Disadvantaged Community in 2017. Census tracts identified in the 2017 Disadvantaged Community designation as disadvantaged, regardless of their scores in CalEnviroScreen 4.0, are considered a disadvantage community. The State provides California Climate Investment funding, appropriated by the State Legislature, from the proceeds of the State’s Cap-and-Trade Program for investment in disadvantaged communities. The funding is used for programs that reduce emissions of greenhouse gases, with at least 25% of the funding going to projects that provide a benefit to



disadvantaged communities, and at least 10% of the funding going to projects located within those communities. (OEHHA, 2022)

### **2.3 SURROUNDING LAND USES**

Existing land uses in the immediate vicinity of the Project Site are illustrated on Figure 2-1, *Surrounding Land Uses*, and are described below.

North: A railroad right-of-way adjoins the Project Site to the north. Emser Tile Distribution Center (5300 Shea Center Drive) is located to the north of the railroad tracks.

South: East Airport Drive adjoins the Project Site to the south. Two warehouses are located south of East Airport Drive with street addresses of 5600 East Airport Drive and 5200 East Airport Drive. Current tenants at these warehouses include Costco and XPO Logistics.

West: A Verizon facility (5351 East Airport Drive) adjoins the Project Site to the west.

East: A industrial gas supplier, Praxair, Inc. with the street address of 5735 East Airport Drive adjoins the Project Site to the east.



Source(s): ESRI, Nearmap Imagery (2022)

Figure 2-1



### Surrounding Land Uses



## 2.4 PLANNING CONTEXT

### 2.4.1 CITY OF ONTARIO GENERAL PLAN (POLICY PLAN)

The City of Ontario's prevailing planning document is its General Plan (Policy Plan), dated August 2022. As depicted on Figure 2-2, *Existing General Plan Land Use Designations*, the City's General Plan designates the Project Site for "Industrial (IND)" land uses. The "IND" land use designation is intended for a variety of light industrial uses, including warehousing/distribution, assembly, light manufacturing, research and development, storage, repair facilities, and supporting retail and professional office uses with a maximum floor area ratio (FAR) of 0.55 (Ontario, 2022a, p. 11).

### 2.4.2 ZONING

As shown on Figure 2-3, *Existing Zoning Designations*, the Project Site is designated as "Heavy Industrial (IH)". According to the Ontario Development Code, Chapter 5.0 Zoning and Land Use, the IH zoning district is established to accommodate heavier manufacturing, assembly, storage, warehousing, and other similar industrial activities, as well as adult uses, all of which may be developed at a maximum intensity of 0.55 FAR. This zoning district is intended to be located away from residentially zoned properties, public parks and schools, and mixed-use properties having a residential component. The IH zoning district is consistent with, and implements, the Industrial land use designation of the Policy Plan component of The Ontario Plan (Ontario, 2022c).

### 2.4.3 SCAG REGIONAL TRANSPORTATION PLAN / SUSTAINABLE COMMUNITIES STRATEGY

The Southern California Association of Governments (SCAG) is a Joint Powers Authority (JPA) under California State law, established as an association of local governments and agencies that voluntarily convene as a forum to address regional issues. Under federal law, SCAG is designated as a Metropolitan Planning Organization (MPO) and under State law as a Regional Transportation Planning Agency and a Council of Governments. The SCAG region encompasses six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura) and 191 cities in an area covering more than 38,000 square miles.

SCAG's *2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)* develops long-range regional transportation plans including a sustainable communities strategy and growth forecast components, regional transportation improvement programs, regional housing needs allocations and other plans for the region. The *RTP/SCS* provides objectives for meeting air pollution emissions reduction targets set forth by the California Air Resources Board (CARB); these objectives were provided in direct response to Senate Bill 375 (SB 375) which was enacted to reduce greenhouse gas emissions from automobiles and light trucks through integrated transportation, land use, housing, and environmental planning. The *Subregional Sustainable Communities Strategies* identifies the Project Site as being located in an area with a "Standard Suburban" land use pattern, which is defined as auto-oriented development with a minimal mix of land uses (SCAG, 2020a, *Sustainable Communities Strategy Technical Report*, p. 45).



The *Goods Movement Technical Report* of the RTP/SCS recognizes that the SCAG region is the premier trade gateway for the United States. It goes on to say that the SCAG region has witnessed continued growth for warehousing, distribution, cold storage and truck terminal facilities, with a majority of the growth for national and regional distribution facilities occurring in the Inland Empire. Through Connect SoCal, SCAG is working on various regional strategies to maintain the SCAG region as an important trade gateway while addressing regional transportation efficiency and environmental sustainability (SCAG, 2020a, Goods Movement Technical Report, pp. 1 through 17).

## **2.5 EXISTING PHYSICAL SITE CONDITIONS**

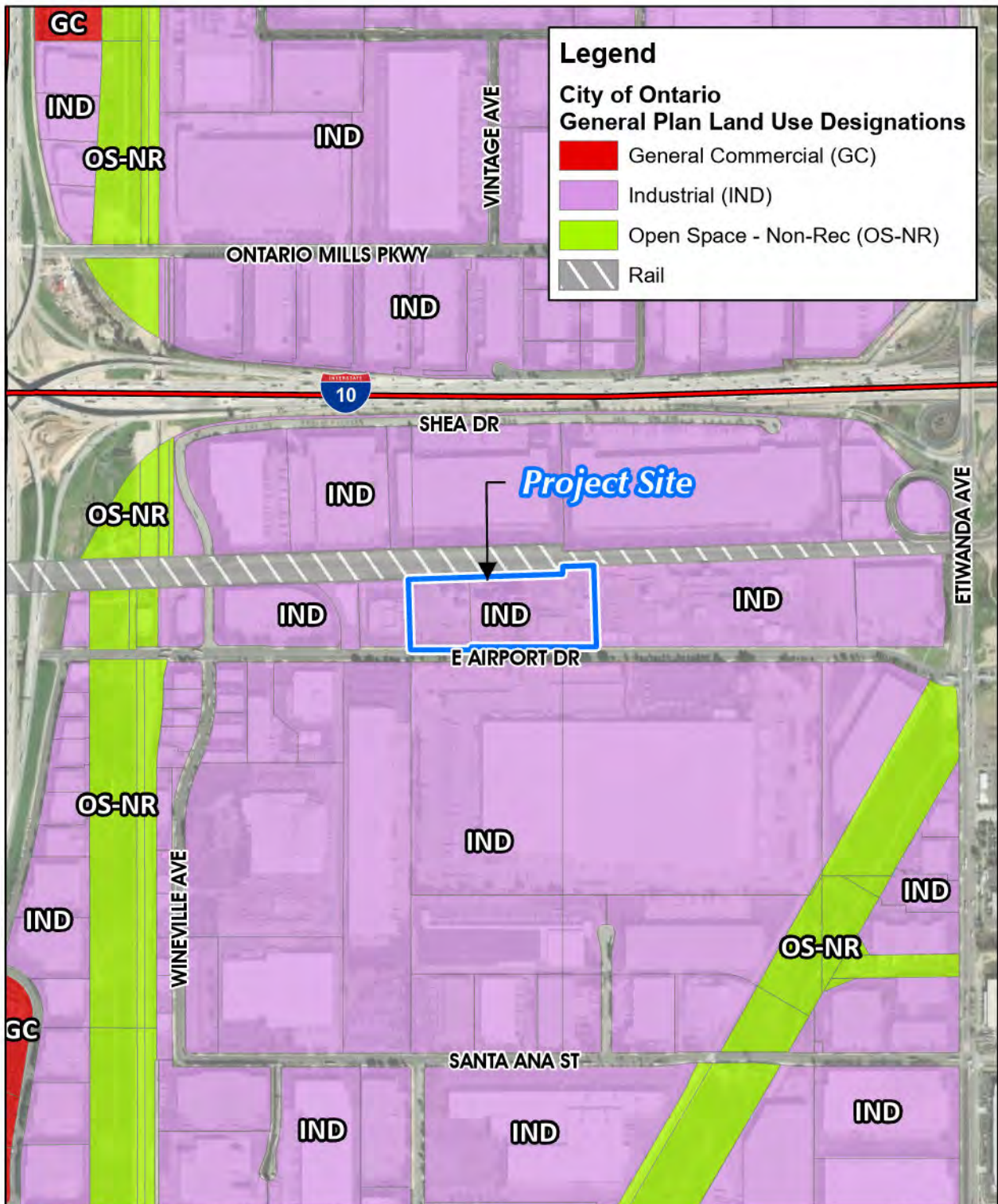
CEQA Guidelines Section 15125(a)(1), recommends that the physical environmental condition that existed at the time an EIR's NOP is released for public review normally be used as the comparative baseline for the EIR analysis. The NOP for this EIR was released for public review on September 1, 2022, and the following pages include a description of the Project Site's physical environmental condition ("existing conditions") as of that approximate date. More information regarding the Project Site's environmental setting is provided in the specific subsections of EIR Section 4.0, *Environmental Analysis*.

### **2.5.1 LAND USE**

Under existing conditions, the Project Site is developed with a grain processing company and a corn storage and distribution facility. The eastern portion of the Project Site contains grain storage silos, grain mill area, and five buildings that are used for maintenance and repair, grain storage, and service shop. The western portion of the Project Site contains enclosed grain storage, with an office trailer. A vehicle wash-down area is also present on the northeastern portion of the Site. Several subsurface septic systems are located beneath the Site to serve the existing uses.

Pursuant to CEQA Guidelines Section 15125(d), the environmental setting should identify any inconsistencies between a proposed project and applicable general, specific, or regional plans. The Project Applicant proposes to develop the approximately 13.08-acre property as a one-building warehouse facility. The principal discretionary action required of the City of Ontario to implement the Project is a Development Plan, which is described in detail in Section 3.0, *Project Description*. Other permits and approvals are listed in Table 3-3, *Matrix of Approvals/Permits*. The Project is consistent with the existing General Plan land use and Zoning designations of "IND" and "IH", respectively.



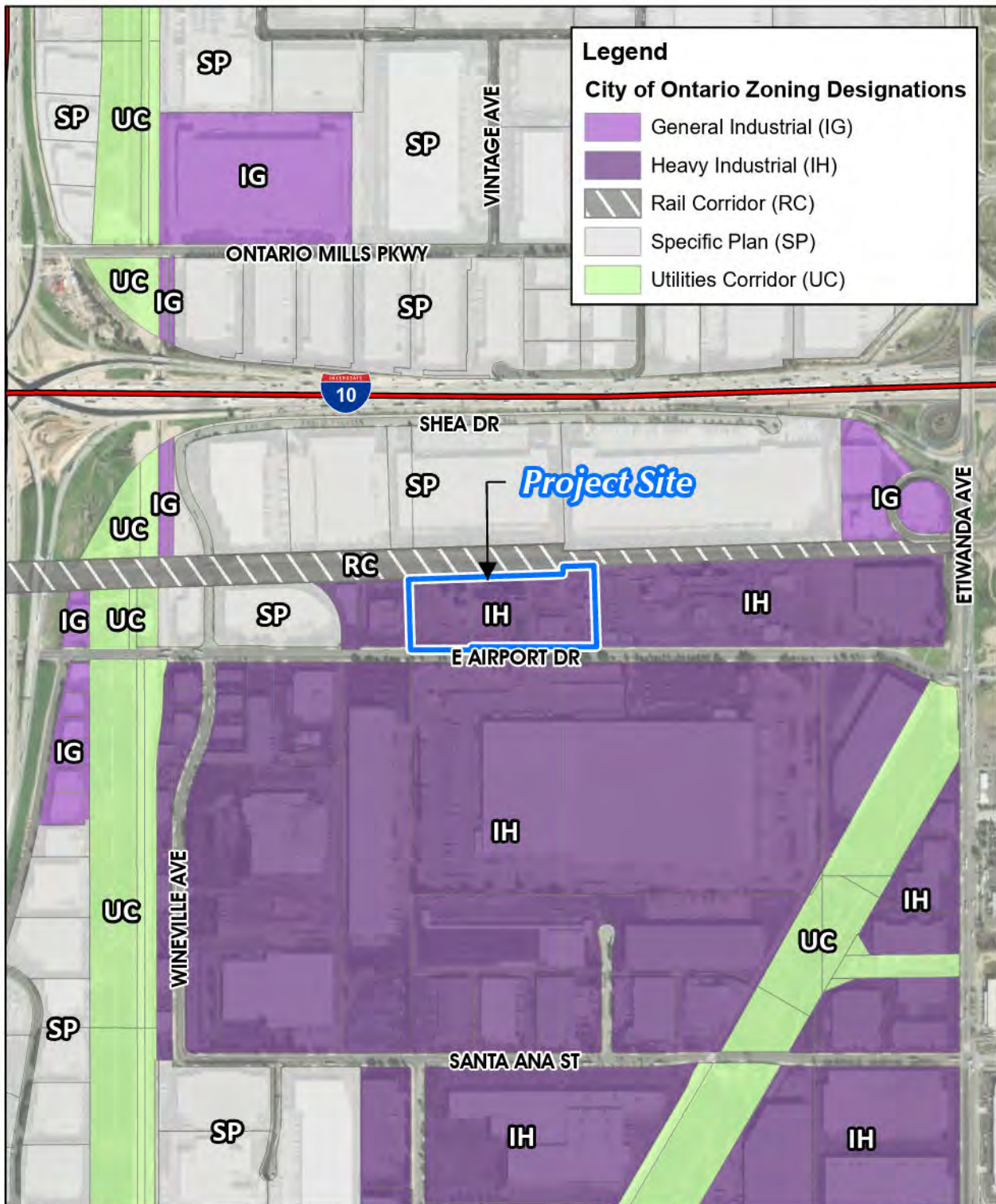


Source(s): ESRI, NearMap Imagery (2022), SB County (2022)

Figure 2-2



### Existing General Plan Land Use Designations



Source(s): ESRI, NearMap Imagery (2022), SB County (2022)

Figure 2-3



Existing Zoning Designations



### 2.5.2 AESTHETICS AND TOPOGRAPHIC FEATURES

The Project Site slopes gently to the south-southeast at a gradient of less than 1 percent and is perceived to be generally flat. Figure 3-3, *USGS Topographic Map*, in EIR Section 3.0, *Project Description*, depicts the Project Site's existing topographic conditions. The Project Site is completely developed and minimal vegetation is located around the southern perimeter of the Project Site. There are no rock outcroppings or other unique topographic or aesthetic features present on the property.

### 2.5.3 AIR QUALITY AND CLIMATE

The Project Site is located in the 6,745-square mile South Coast Air Basin (SCAB), which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The SCAB is bound by the Pacific Ocean to the west and the San Gabriel, San Bernardino, the San Jacinto Mountains to the north and east, and San Diego County to the South. The SCAB is within the jurisdiction of the South Coast Air Quality Management District (SCAQMD), the agency charged with bringing air quality in the SCAB into conformity with federal and State air quality standards. Although the climate of the SCAB is characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. More than 90% of the SCAB's rainfall occurs from November through April. Temperatures during the year range from an average minimum of 36°F in January to over 100°F maximum in the summer. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Ana(s)" each year. (Urban Crossroads, 2022a)

At the regional level, air quality in the SCAB has improved over the past several decades; however, the SCAB is currently not in attainment of State and/or federal standards established for Ozone (O<sub>3</sub> one-hour (State standard only) and eight-hour), and particulate matter (PM<sub>10</sub> (State standard only) and PM<sub>2.5</sub>). No areas of the SCAB exceeded federal or State standards for nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), or carbon monoxide (CO). (Urban Crossroads, 2022a)

Refer to EIR Subsection 4.2, *Air Quality*, and 4.6, *Greenhouse Gas Emissions*, for a more detailed discussion of the existing air quality and climate setting in the Project area.

### 2.5.4 CULTURAL RESOURCES & TRIBAL CULTURAL RESOURCES

Three cultural resources have been recorded within one-half mile of the Project Site; none of which are within the Project boundaries. The resources include a historic railroad track alignment, a historic foundation, and a historic transmission line alignment. (BFSA, 2022)

### 2.5.5 GEOLOGY

Regionally, the Project Site is in the Upper Santa Ana River Valley, consisting of coalescing alluvial fans formed by streams flowing out of the San Gabriel Mountains to the north. The Project Site lies within the Peninsular Ranges geomorphic province, characterized by northwest-trending mountains



and valleys and extending south into Mexico. The Project Site is in one of the more seismically active portions of southern California. (Ontario, 2022a)

The Project Site is located in an area that is subject to strong ground motions due to earthquakes. Numerous faults capable of producing significant ground motions are located near the Project Site. (SoCal Geotechnical, 2022a, p. 10) An active fault is defined by the California Geotechnical Survey as a fault that has experienced surface displacement within the Holocene Epoch (roughly the last 11,000 years). The nearest active fault to the Project Site is the Cucamonga Fault, located approximately 7.0 miles to the north of the Project Site (CGS, 2015). Research of available maps indicates that the Project Site is not located within an Alquist-Priolo Earthquake Fault Zone. No evidence of faulting was identified during the geotechnical investigation. (SoCal Geotechnical, 2022a, p. 10)

Artificial fill soils were encountered beneath the existing pavements at all of the infiltration boring locations, extending to depths of 3 to 4± feet below the existing site grades. The fill soils generally consist of medium dense to dense silty sands, with occasional loose sands. The fill soils possess a disturbed mottled appearance resulting in their classification as artificial fill. Native alluvial soils were encountered beneath the fill soils at all of the infiltration boring locations, extending to at least the maximum depth explored of 12± feet. The alluvium generally consists of loose sands, silty sands and silty sands to sandy silts, with occasional medium dense silty sands. (SoCal Geotechnical, 2022b, p. 3)

Refer to EIR Subsection 4.5, *Geology and Soils*, for a more detailed discussion of the Project Site's existing geological setting.

### 2.5.6 HYDROLOGY

The Project Site is located in the Santa Ana River watershed, which drains an approximately 2,650-square-mile area. The Santa Ana River starts in Santa Ana Canyon in the southern San Bernardino Mountains and runs southwesterly across San Bernardino, Riverside, and Orange Counties, where it discharges into the Pacific Ocean at the City of Huntington Beach.

The natural drainage pattern for the existing condition of the Project Site is north to south. There are no existing public storm drain systems at the frontage of the Project Site. Stormwater sheet flows south and discharge onto the existing curb and gutter on Airport Drive. Runoff flows east along Airport Drive and discharges into an existing catch basin located approximately 1,500 east of the Project Site. The existing catch basin is connected to the Lower Etiwanda Creek Channel, which conveys stormwater to the Wineville Basin. (Westland Group, 2022, p. 1)

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. 06071C8633J (effective 09/02/2016), the Project Site is located within FEMA Flood Zone X, which is correlated with areas of minimal flood hazard, determined to be less than the 0.2 percent annual chance flood. (FEMA, 2016)



Refer to EIR Subsection 4.8, *Hydrology and Water Quality*, for a more detailed discussion of the Project Site's existing hydrology and water quality setting.

### **2.5.7 NOISE**

Urban Crossroads recorded 24-hour noise readings at four locations in the Project study area on March 8, 2022, to determine the baseline for the existing noise environment. Measured daytime noise levels in the area ranged from 58.4 equivalent level decibels (dBA L<sub>eq</sub>) to 69.8 dBA L<sub>eq</sub> and nighttime noise levels from 59.0 dBA L<sub>eq</sub> to 68.2 dBA L<sub>eq</sub>. In general, the existing background ambient noise levels in the Project area are dominated by traffic noise associated with automobiles and truck traffic on the local arterial roadway network and the railroad directly north of the Project Site.

Refer to EIR Subsection 4.9, *Noise*, for a more detailed discussion of the Project Site's existing noise setting.

### **2.5.8 TRANSPORTATION**

The Project Site is located north of East Airport Drive, which is classified as a Minor Arterial under the Policy Plan (Ontario, 2022a). Existing traffic on East Airport Drive consists of both passenger vehicles and trucks passing through the area and accessing nearby land uses. The primary regional vehicular travel route serving the Project area is I-10 and I-15, which are located approximately 0.2-mile north and 0.4-mile west of the Project Site, respectively. The Project Site is located approximately 0.4-mile (driving distance) west of the N. Etiwanda Avenue on/off-ramp to I-10 and 3-mile (driving distance) northeast of the Jurupa Avenue on/off-ramp to I-10.

Public transit service in the region is provided by Omnitrans, a public transit agency that serves various jurisdictions within San Bernardino County. There are no public transit routes that run adjacent to the Project Site under existing conditions. The nearest transit routes to the Project Site are Route 61 which has a stop located along Fourth Street, approximately 0.9 mile north of the Project Site and Route 82 which has a stop located at South Etiwanda and Jurupa Avenue, approximately 1.2 miles southeast of the Project Site.

There are no existing bicycle facilities within the vicinity of the Project Site. The closest bike route to the Project Site is a Class III bike route located along Ontario Mills Parkway, approximately 0.4 mile north of the Project Site. There are no sidewalks on either side of East Airport Drive, with the exception of a small portion along the adjacent development frontage directly to the west at 5351 East Airport Drive.

Refer to EIR Subsection 4.10, *Transportation*, for a more detailed discussion of the Project Site's existing transportation setting.



### 2.5.9 UTILITIES AND SERVICE SYSTEMS

Water service to the Project Site is provided by the Ontario Municipal Utilities Company (OMUC) and the City of Ontario provides wastewater conveyance service to the Project Site. Under existing conditions, there is an existing 12-inch water main on East Airport Drive and a 24-inch recycled water main on East Airport Drive that ends approximately west of South Wineville Avenue.

Sanitary sewage generated at the Project Site currently discharges to subsurface septic systems located beneath the site. Two known septic systems are located on the eastern parcel and one known system is located on the western parcel.

The City of Ontario collected solid waste for residences and businesses within the City, including the Project Site. Solid waste generated during the operation of the Project is anticipated to be hauled to either Badlands Sanitary Landfill or El Sobrante Landfill.

Electricity and gas services will be provided by Southern California Edison (SCE) and Southern California Gas Company (SoCal Gas), respectively. Existing overhead power lines occur along East Airport Drive that are aligned in an east-west direction along the southern boundary of the Project Site. There is also an existing 10-inch gas line in East Airport Drive.

Refer to EIR Subsection 4.12, *Utilities and Service Systems*, for a more detailed discussion of the Project Site's existing utilities systems.

### 2.5.10 RARE AND UNIQUE RESOURCES

As required by CEQA Guidelines Section 15125(c), the environmental setting should place special emphasis on resources that are rare or unique to that region and would be affected by the Project. Based on the existing conditions of the Project Site and surrounding area described above and discussed in more detail in Section 4.0, *Environmental Analysis*, the Project Site does not contain any resources that are rare or unique to the region.



## 3.0 PROJECT DESCRIPTION

This section provides all of the information required of an EIR Project Description pursuant to CEQA Guidelines Section 15124, including a description of the Project's precise location and boundaries; a statement of the Project's objectives; a description of the Project's technical, economic, and environmental characteristics; and a description of the intended uses of this EIR (including a list of the government agencies that are expected to use this EIR in their decision-making processes); a list of the permits and approvals that are required to implement the Project; and a list of related environmental review and consultation requirements.

### 3.1 PROJECT LOCATION AND SETTING

As shown in Figure 3-1, *Regional Map*, the 13.08-acre Project Site is located in southwestern San Bernardino County, within the City of Ontario. The City of Ontario is located approximately 40 miles from downtown Los Angeles, 20 miles from downtown San Bernardino, and 30 miles from Orange County.

At the local scale, the Project Site is located at 5355 East Airport Drive (APN: 0238-052-29 and 0238-052-20). The Project Site is bordered by East Airport Drive to the south, industrial uses to the east and west, and railroad tracks to the north. Refer to Figure 3-2, *Vicinity Map*, and Figure 3-3, *USGC Topographic Map*. Also refer to EIR Subsection 2.3, *Surrounding Land Uses*, for a description of existing land uses that abut the Project Site.

Under existing conditions, the Project Site is developed with a grain processing company and a corn storage and distribution facility. The eastern portion of the Project Site contains grain storage silos, grain mill area, and five buildings that are used for maintenance and repair, grain storage, and service shop. The western portion of the Project Site contains enclosed grain storage, with an office trailer. A vehicle wash-down area is also present on the northeastern portion of the Site, and three known septic systems are located beneath the Site. Vehicular access to the Project Site is from three driveways along East Airport Drive. There are currently no sidewalks present along the Project Site's southern boundary on East Airport Drive.

### 3.2 STATEMENT OF OBJECTIVES

The fundamental purpose and goal of the 5355 East Airport Drive Project is to accomplish the orderly redevelopment of the Project Site with a modern warehouse distribution facility. The Project would achieve this goal through the following objectives.

- A. To expand economic development and facilitate job creation in the City of Ontario by redeveloping the property with a new, in-demand industrial use adjacent to an already-established industrial area.



- B. To attract employment-generating businesses to the City of Ontario to reduce the need for members of the local workforce to commute outside the area for employment.
- C. To develop industrial buildings with loading bays in close proximity to designated truck routes and the State highway system to avoid or shorten heavy truck-trip lengths on City and regional roads.
- D. To attract businesses that can expedite the delivery of goods to consumers and businesses in the City of Ontario and beyond.
- E. To develop a project that has architectural design and operational characteristics that complement other existing and planned buildings in the immediate vicinity of the Project Site and minimize conflicts with other nearby land uses.
- F. To develop a property that has access to available infrastructure, including roads and utilities.

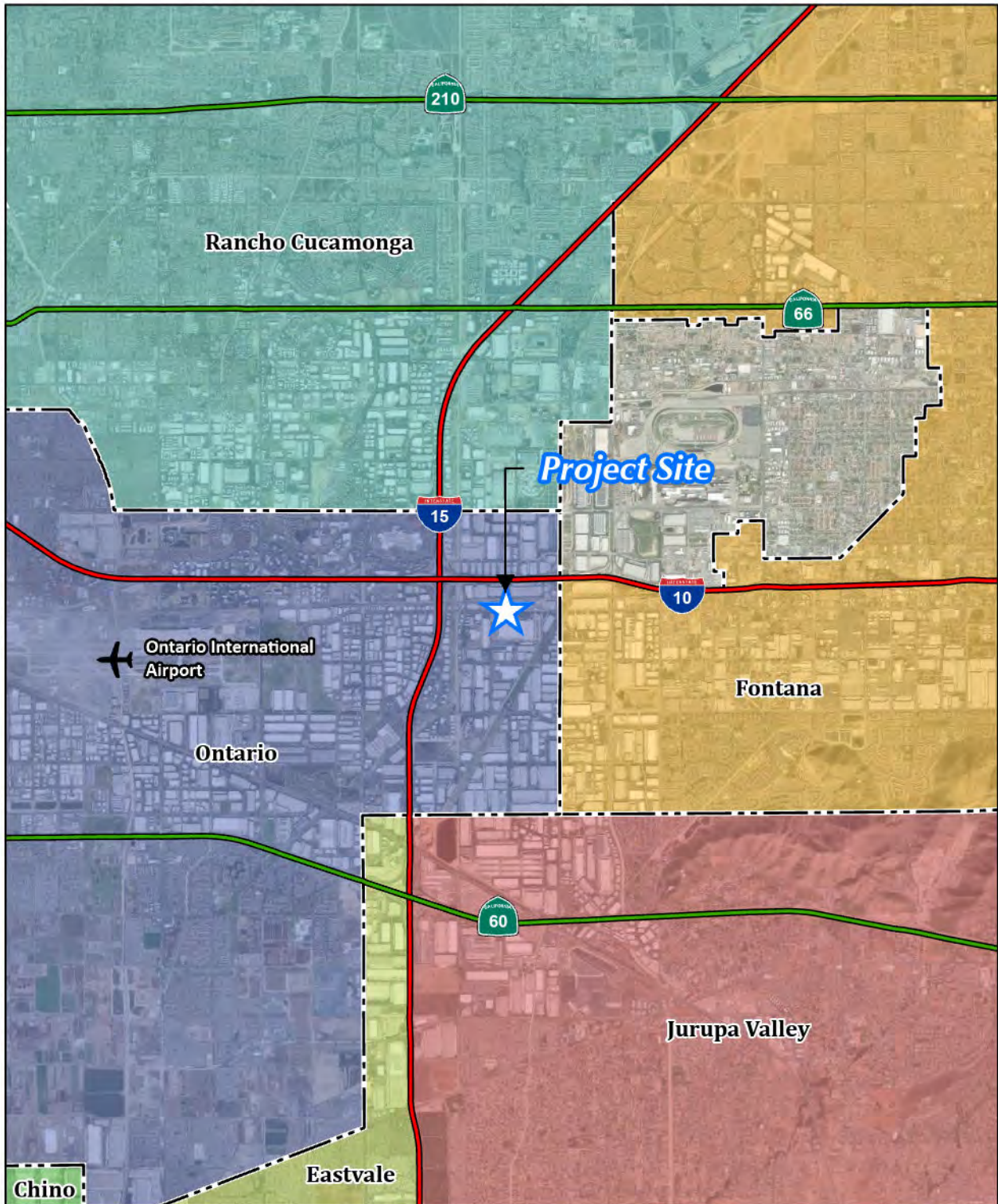
### **3.3 PROJECT COMPONENTS**

The Project involves a discretionary application for a Development Plan (PDEV22-017). The principal discretionary action required of the City of Ontario to implement the Project are described in detail on the following pages. Additional discretionary and administrative actions that would be necessary to implement the proposed Project are listed in Table 3-3, *Matrix of Project Approvals/Permits*, at the end of this Section.

#### **3.3.1 DEVELOPMENT PLAN (PDEV22-017)**

The proposed Development Plan specifies a development plan for the Project Site that provides for the construction and operation of a warehouse building with approximately 270,337 square feet (s.f.) of building floor area, including 255,337 s.f. of warehouse space and 15,000 s.f. of mezzanine. Although the future tenant(s) of the proposed building is unknown at this time, for purposes of analysis within this EIR it is assumed that the building would include approximately 27,034 s.f. of high-cube cold storage uses (10% of the building space), with remaining portions of the building consisting of warehouse uses. The detailed components of the proposed Site Plan are described below. The Project design, which ultimately would include building components and systems to be shown on construction drawings (such as light fixtures, water fixtures, and heating, ventilation, and air condition equipment), would be conditioned by the City of Ontario to achieve Leadership in Energy and Environmental Design (LEED) standards.



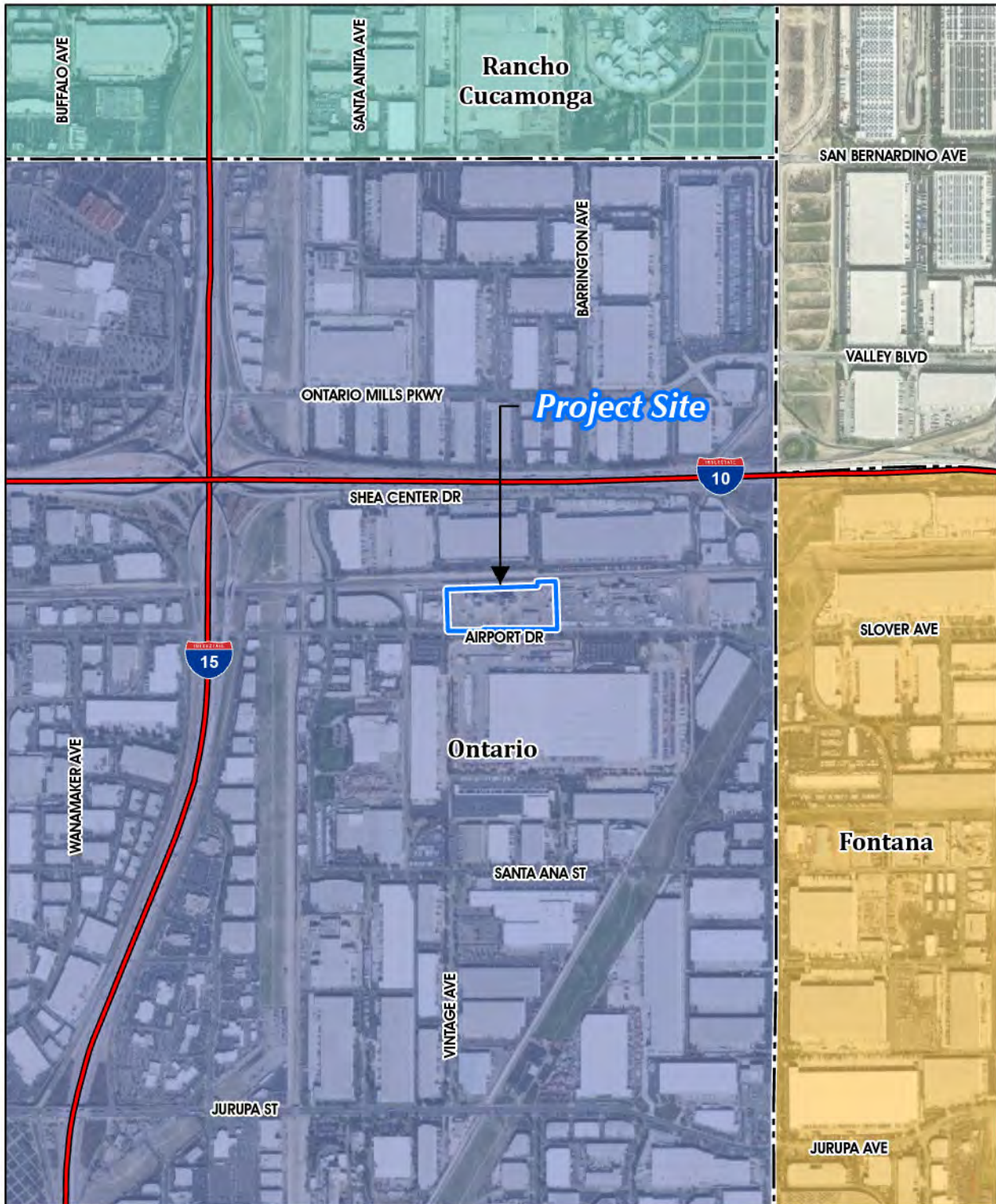


Source(s): ESRI, NearMap Imagery (2022), SB County (2023), RCIT (2023)

Figure 3-1

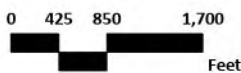


### Regional Map

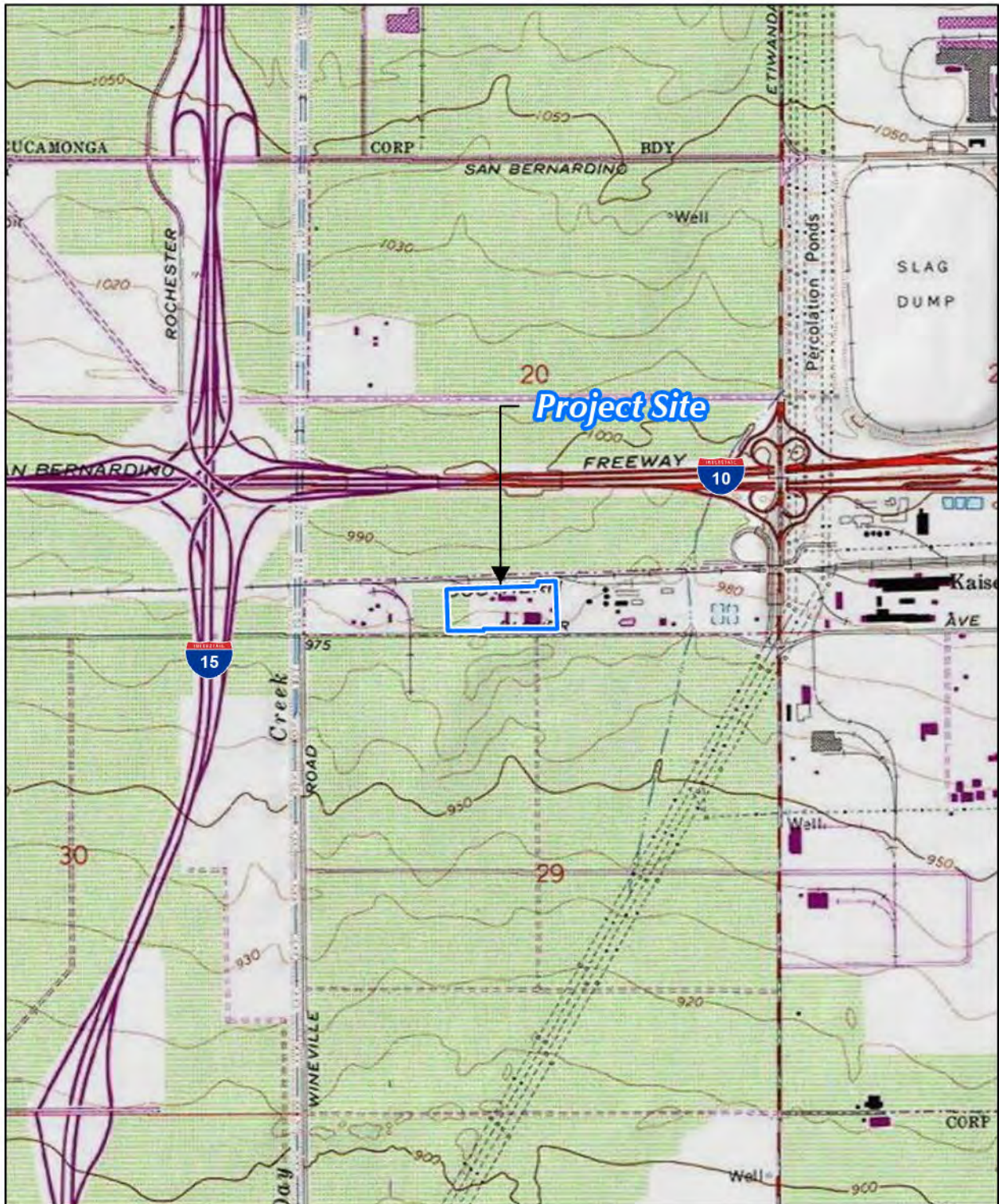


Source(s): ESRI, NearMap Imagery (2022), SB County (2022)

Figure 3-2

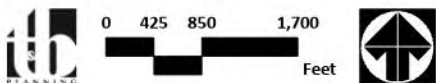


### Vicinity Map



Source(s): ESRI, USGS (2013)

Figure 3-3



USGS Topographic Map



***B. Site Plan***

The proposed Site Plan for the Project is illustrated on Figure 3-4, *Proposed Site Plan*. The proposed building is designed as a rectangular-shaped building with its elongated sides oriented parallel to the Project Site's northern and southern boundaries. The proposed building would have 54 loading docks and 48 truck trailer parking spaces within the truck court/loading area on the south side of the building. The truck court/loading area would be enclosed and screened from public viewing areas by landscaping and minimum 14-foot-tall concrete tilt screening walls, with 8-foot-tall black tube steel gate used at the access points. Passenger vehicle parking areas would be provided on the west, south, and east sides of the building with a total of 251 on-site passenger vehicle spaces. Of the 251 spaces, 126 would be designated as standard automobile parking stalls, 7 would be designated as accessible parking stalls, 25 would be designated as electric vehicle parking stalls, and 93 would be designated as future stalls within the truck court. Additionally, bike racks would be provided near the building entrances and adjacent to the electrical room. Vehicular access would be provided via 2 driveways on East Airport Drive. Both driveways would be covered with enhanced decorative paving and would provide inbound/outbound access for passenger vehicles and trucks. A new sidewalk would be constructed along East Airport Drive to provide pedestrian access from the public street to the primary building entrances.

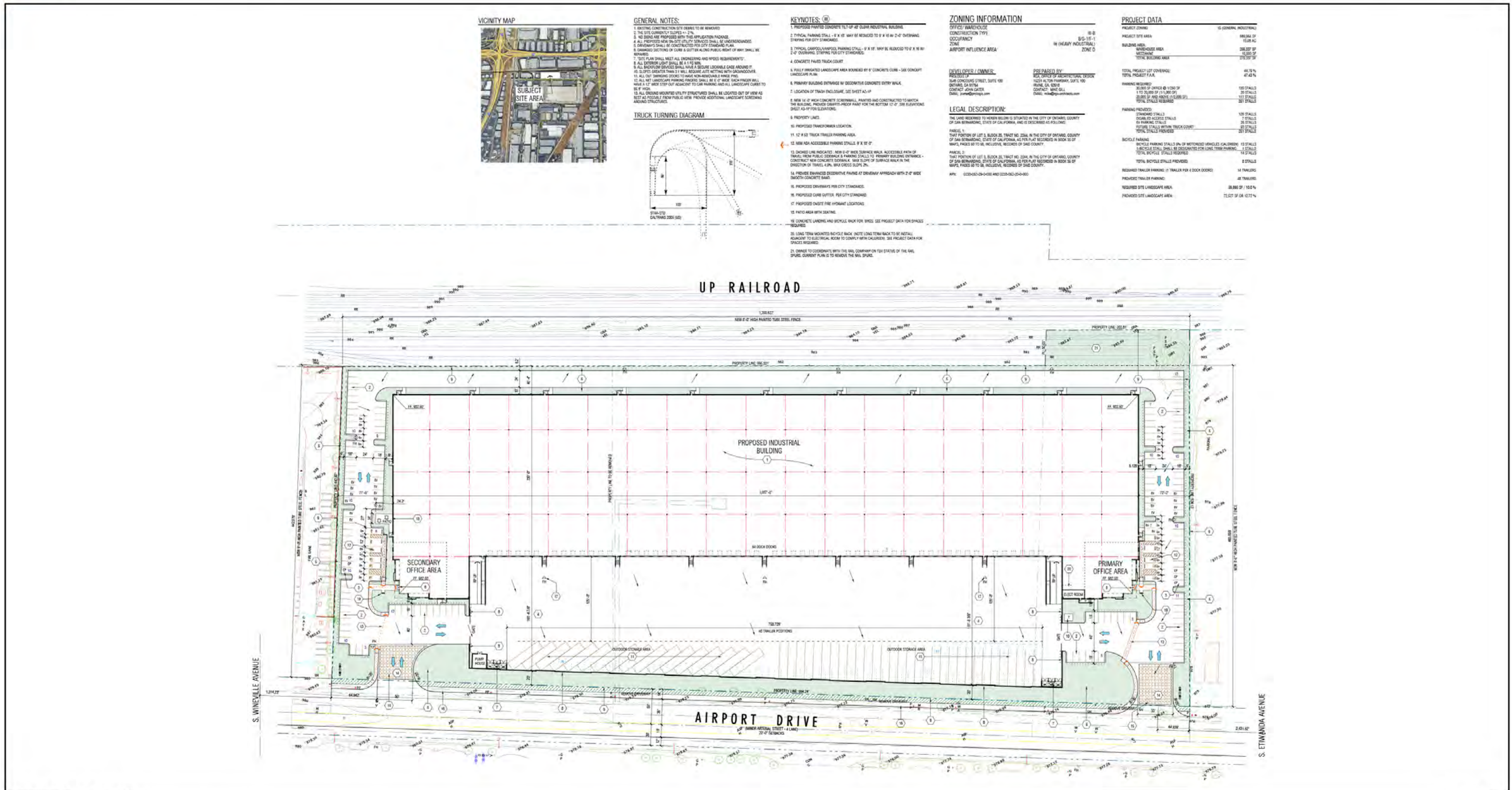
***C. Architecture Plan***

The proposed architecture plan provides a building with a maximum height of 49 feet above finished floor elevation to the top of the parapets; however, the proposed building would have a varied roofline and portions of the building would be slightly less than 49 feet tall. The proposed building would be constructed with concrete tilt-up panels, with special architectural features and colors at the potential office locations at the southwest and southeast corners of the building, which also would feature green reflective glazing. The proposed building's exterior color palette would be comprised of various shades of white, grays, dark grays, and dark green. Architectural elevations for the proposed project are illustrated on Figure 3-5, *Proposed Architectural Elevations*.

***D. Landscaping/Exterior Features***

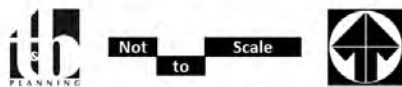
Ornamental landscaping and lighting would be installed per compliance with the City's Municipal Code. As depicted in Figure 3-6, *Proposed Landscape Plan*, a variety of trees, shrubs, accent plants, and ground cover are proposed along the perimeter of the Project Site and parking area. Landscaping would feature drought-tolerant plant materials including approximately 199 trees, installed at the following sizes at the time of planting: 109 15 gallon, 10 48" box, 20 36" box, and 60 24" box trees.

Exterior lighting would be installed on-site, as necessary, for safety, security, and wayfinding. Decorative architectural lighting as well as landscape lighting would also be installed to accent building entries as focal points throughout the Site.



Source(s): RGA (04-18-2023)

Figure 3-4

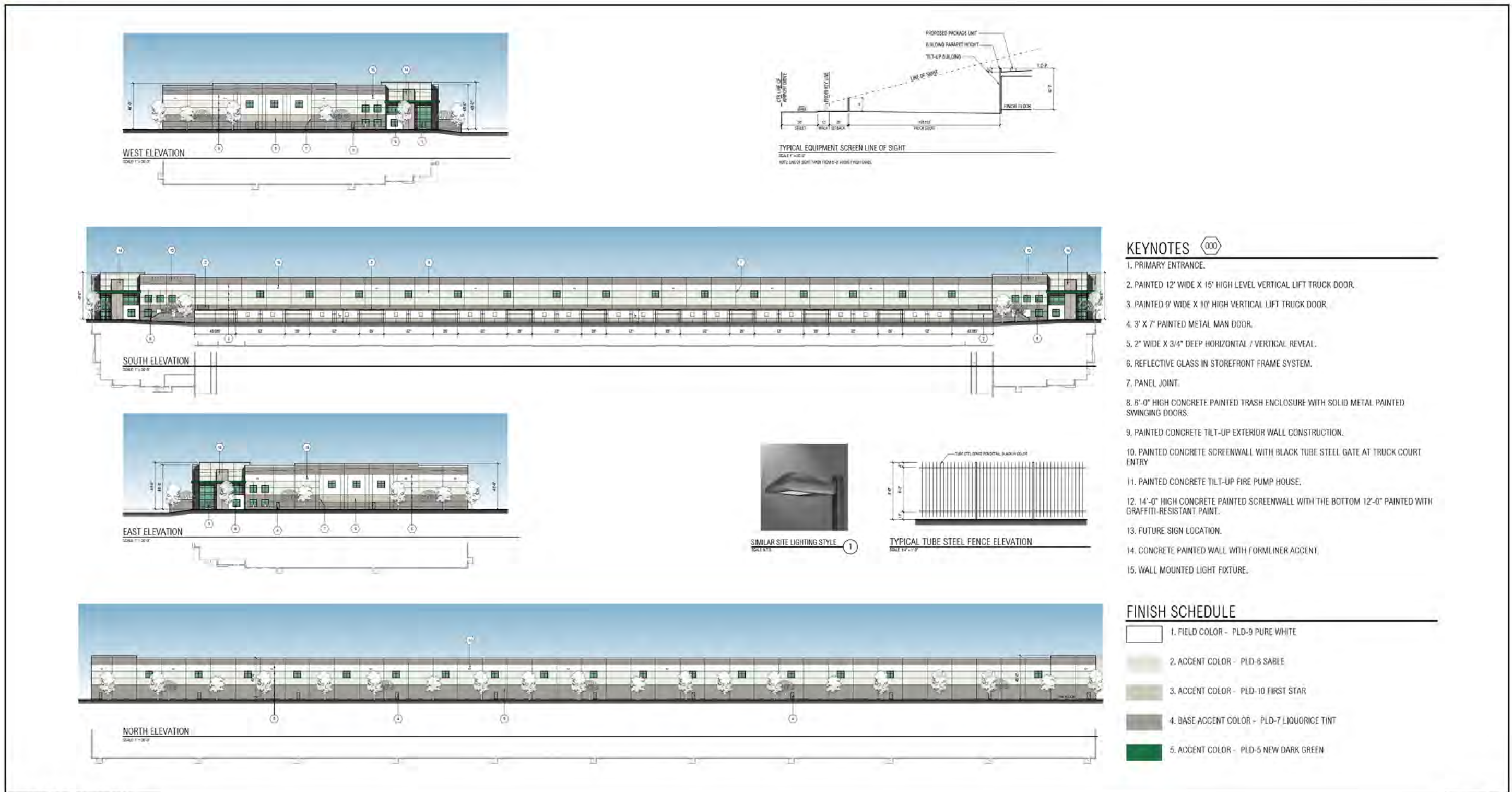


Lead Agency: City of Ontario

Proposed Site Plan

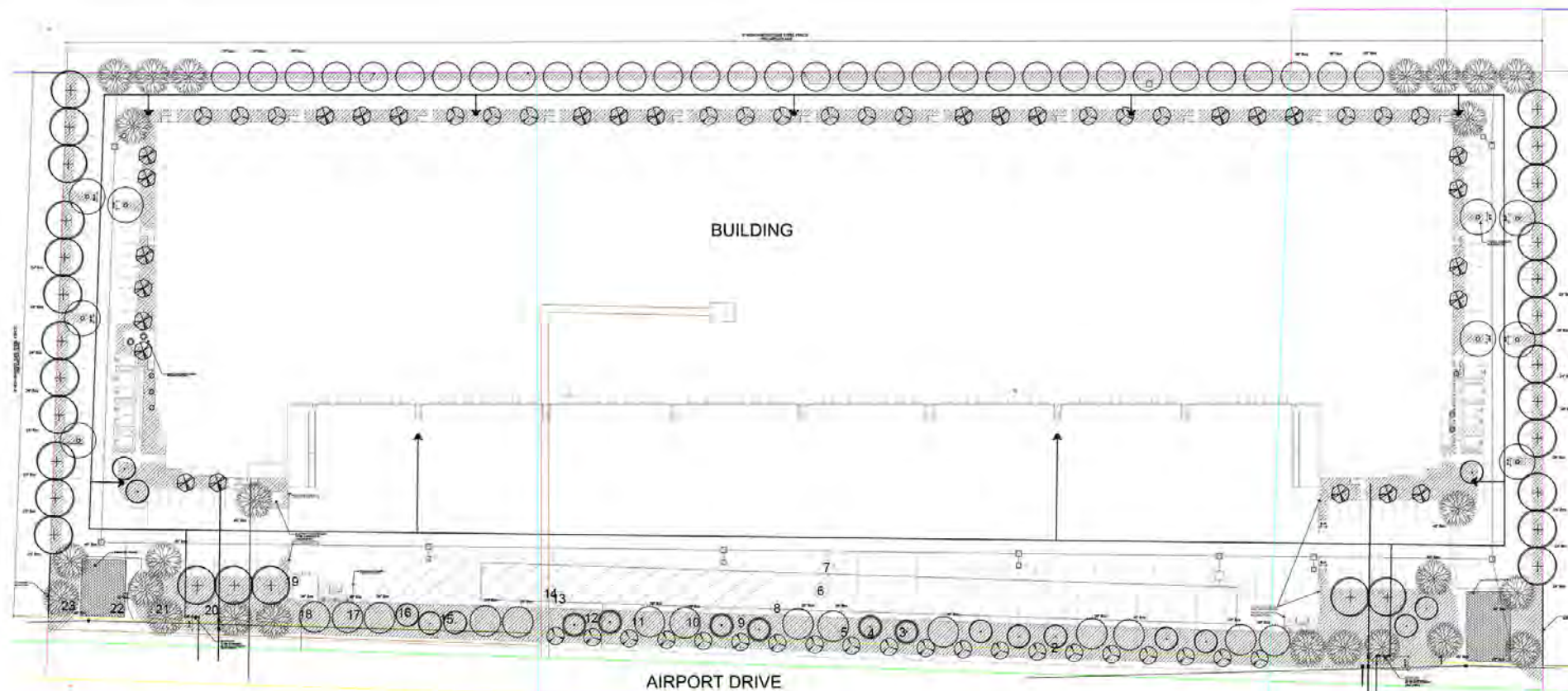
SCH No. 2022090006

Page 3-7



Source(s): RGA (11-03-2022)

Figure 3-5



- GENERAL NOTES:**
- All trees within 5' of hardscape to have a 12" deep linear root barrier. See Planting Detail sheet.
  - Contractor to install concrete curb between parking, rock and turf areas. See planting detail sheet.
  - All planter areas to receive a 2" layer of shredding organic mulch.
  - All backflows and above ground equipment to be placed at least 5' from hardscape on flat areas. All equipment to be screened with 30" high chain-link plants.
  - Tall shrubs are to be provided at screen walls for protection from graffiti.
  - Soil compaction to be no greater than 85% on landscape areas.
  - All finish grades to be 1" below finish surface paving.
  - Slopes to be maximum 3:1.
  - Agronomical soil testing report to be included in landscape plans.
  - Landscape irrigation equipment to be a combination of drip, spray and rotator.
  - Overhead spray systems shall be designed for plant material less than the height of the spray head.
  - All trees to have a 5' mulch ring around trunk. No irrigation other than required tree bubblers are allowed within ring.
  - Concrete curb curbs on property lines where no other maintenance delineation occurs.
  - Landscape areas where compaction has occurred due to grading activities and where trees or other water infiltration areas are located shall be loosened by soil fracturing. For trees a 12"x12"x18" deep area, for storm water infiltration, the entire area shall be loosened. The following shall be included on the plans: The back hoe method of soil fracturing shall be used to break up compaction. A 4" layer of compost is spread over the soil surface before fracturing is begun. The back hoe shall dig into the soil filling and then dropping the soil immediately back into the hole. The bucket then moved to the adjacent soil and repeated. The compost falls into the spaces between the soil chunks created. Fracturing shall leave the soil surface quite rough with large soil clods. These must be broken by additional tilling. Tilling in more compost topsoil can be added on top of the fractured soil as needed for grading. The landscape architect shall be present during the process and provide certification for the soil fracturing.
  - Plans shall meet all the requirements of the Landscape Development Guidelines.
  - 12" wide Step-out curb added to parking spaces adjacent to planters.

Existing trees:  
 1-11 Jacaranda spec. 10" dia  
 12-15 Jacaranda spec. 14" dia  
 These are under power lines and have been severely topped at a recent. Though being trees are in poor form and structure. These are not deemed heritage trees and are not required to be mitigated.

**WATER METER W1**  
WATER EFFICIENT LANDSCAPE WORKSHEET (MML/0)

Irrigation / Standing Deciduous	Plant Species (ET)	Irrigation Method	Irrigation Efficiency (%)	ETAP (mm)	Landscape Area (sq)	ETM x Area	Estimated Annual	Substantial Annual	
							Water Use (Liters)	Water Use (Liters)	
<b>Regular Landscape Areas</b>									
M101 / Low CC & Shrubs	0.2	Drip	0.81	0.25	25,223	6,228	216,508	0.67	
M102 / Moisture Req. Alternates	0.1	Drip	0.81	0.09	18,809	8,799	10,000	0.00	
M103 / Low & Alternating Trees	0.2	Rotator	0.75	0.25	38,208	7,704	312,244	0.94	
						137	6,097	0.02	
<b>TOTAL</b>							<b>75,832</b>	<b>26,107</b>	
<b>Estimated Annual Water Use (EAWU) Total</b>								347,759	1.50
<b>Maximum Allowed Water Allowance (MAWA)</b>								1,750,011	3.11
<b>Special Landscape Areas</b>									
Hydrocortical 1								0.00	
Hydrocortical 2								0.00	
Hydrocortical 3								0.00	
<b>TOTAL</b>									0.00
<b>MAWA Total</b>									0.00
<b>Minimum Allowed Water Allowance (MAWA)</b>									0.00
<b>ETM Calculations</b>									
<b>Regular Landscape Areas</b>									
Total ETM x Area							22,197		
Total Area							75,832		
Average ETM							0.291		
<b>All Landscape Areas</b>									
Total ETM x Area							22,197		
Total Area							75,832		
Site-wide ETM							0.291		
<b>Irrigation Efficiency</b>									
Drip Irrigation							0.82		
Overhead Spray							0.75		
Rotator							0.75		

**PLANTING LEGEND**

TREES	SYMBOL	BOTANICAL/COMMON NAME	SIZE	QTY	WUCOLS	REMARKS
	☐	Quercus occidentalis Western Redbud	24" Box	38	L	Standard
	○	Chaenactis americana Dwarf Willow	15 Gal	8	L	Mult
	○	Heliconia arthuriana Tovon	15 Gal	13	L	Mult
	○	Antipendula therschied Strawberry Jamboree	15 Gal	6	M	Standard
	○	Prunella alba Alban Pine	15 Gal 30" Box	28 20	M	Mult
	○	Quercus robur Heavy Oak	15 Gal	9	L	Standard
	○	Pistacia chinensis Chinese Pistache	15 Gal 24" Box	17 16	L	Standard
	○	Pistacia tatarica Callonit Sycamore	48" Box 24" Box 15 Gal	10 5 9	M	Mult
	○	Taxodium canadense Baldcypress	15 Gal	27	M	Standard

SHRUBS	SYMBOL	BOTANICAL/COMMON NAME	SIZE	QTY	WUCOLS	REMARKS
	☐	Callistemon luteo-verticillatus Dwarf Callistemon	5 Gal	0	L	
	☐	Chamaecyparis stricta Chinese Juniper	5 Gal	0	L	
	☐	Ruscus acuminatus Rose Hips	5 Gal	0	L	
	☐	Forseythia suspensa Forsythia Lily	5 Gal	0	L	
	☐	Podocarpus neriifolia Podocarpus	5 Gal	0	M	
	☐	Hamamelis virginiana Hamamelis	5 Gal	0	M	
	☐	Thuja occidentalis Pineapple Guava	5 Gal	0	L	
	☐	Heliconia arthuriana Tovon	5 Gal	0	L	
	☐	Leucophaea t. Green Cloud Lemon Range	5 Gal	0	L	
	☐	Chamaecyparis stricta Dwarf Juniper	5 Gal	0	L	
	☐	Salix purpurea Autumn Sage	5 Gal	0	L	
	☐	Wisteria floribunda Coral Rosemary	5 Gal	0	L	

GROUNDCOVER	SYMBOL	BOTANICAL/COMMON NAME	SIZE	SPACING	WUCOLS	REMARKS
	☐	Atropa belladonna Acacia	1 Gal	5" O.C.	L	
	☐	Eleocharis acicularis Crayon Bush	1 Gal	30" O.C.	L	
	☐	Carex pensilvanica Berkeley Sedge	1 Gal	12" O.C.	M	
	☐	Datura stramonium Atropa belladonna	1 Gal	30" O.C.	L	
	☐	Erigeron annuus Aster Fennel	1 Gal	12" O.C.	L	
	☐	Abies balsamea Prostrate Juniper	1 Gal	30" O.C.	L	

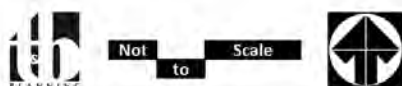
Total On-Site Tree Count = 199  
 25% Native Tree Count Required = 50  
 Native Tree Count Provided = 78

Total On-Site Tree Count = 199  
 5% 48" Box Required = 10  
 10% 36" Box Required = 20  
 20% 24" Box Required = 40  
 55% 15 Gal Required = 109

48" Box Provided = 10  
 36" Box Provided = 20  
 24" Box Provided = 10  
 15 Gal Provided = 109

Source(s): Hunter Landscape (11-01-2022)

Figure 3-6





***E. Infrastructure Improvements***

***1. Water Service***

Water service to the Project Site would be provided by the Ontario Municipal Utilities Company (OMUC). As depicted in Figure 3-7, *Proposed Utility Plan*, water would be accommodated via proposed water lines that would extend from the southeastern and southwestern corners of the building to an existing 12-inch water main at East Airport Drive. Additionally, recycled water to the Project Site would be provided via a proposed 8-inch recycled water main along East Airport Drive. The proposed 8-inch recycled water main would extend from the west of South Wineville Avenue to the eastern boundary of the Project Site and connect to the existing 24-inch recycled water main.

***2. Sanitary Sewer Service***

Sanitary sewer service to the Project Site would be provided by OMUC's sanitary sewer wastewater collection system and conveyed to the Inland Empire Utilities Agency (IEUA) for wastewater treatment. Sewer would be accommodated via proposed 6-inch sewer line that would extend from the southwestern corners of the building to a proposed 8-inch OMUC sewer main on East Airport Drive. There is an existing 8-inch OMUC sewer main on East Airport Drive that ends approximately at the western boundary of the Project Site where the proposed 8-inch sewer main would connect.

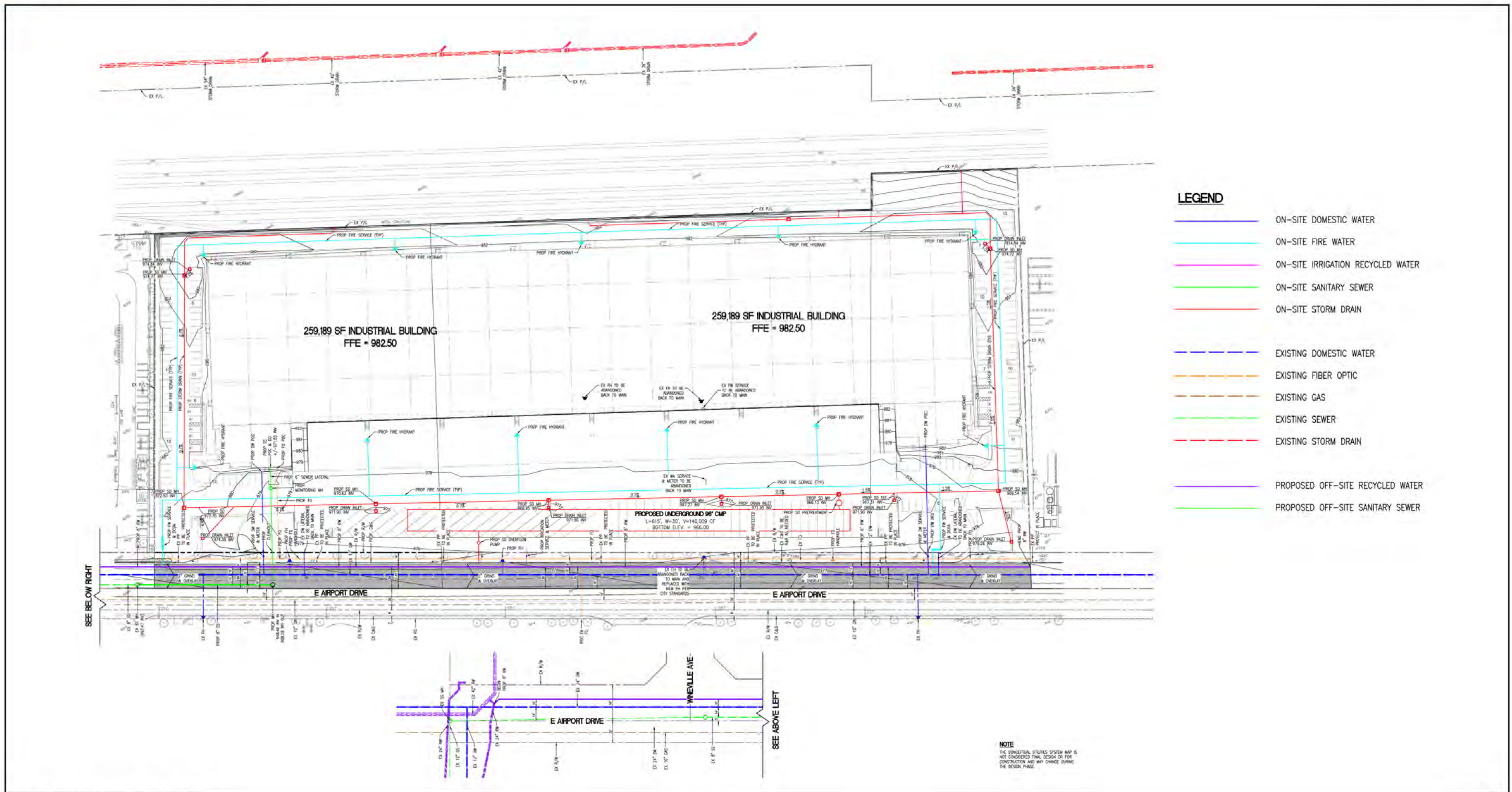
***3. Drainage***

Stormwater would sheet flow from north to south and would be captured by proposed on-site catch basins. The proposed on-site storm drain system is designed to convey the flow into a proposed underground infiltration chamber. In a large storm event, stormwater would exit the underground chamber system via pipes and would be pumped out through a proposed parkway drain on East Airport Drive. Runoff is designed to sheet flow east along Airport Drive and discharge into the existing catch basin, located approximately 1,500 feet east of the Project Site, to maintain the same point of discharge as the existing condition.

***4. Dry Utilities***

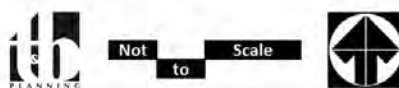
Electricity and gas services would be provided by the Southern California Edison (SCE) and Southern California Gas Company (SoCal Gas), respectively. All new dry utility infrastructure would be installed underground and within the Project Site with the exception of any electrical lines carrying voltages that SCE does not allow to be undergrounded.





Source(s): WestLAND Group, Inc. (05-08-2023)

Figure 3-7



Lead Agency: City of Ontario

Proposed Utility Plan

SCH No. 2022090006



### 3.4 SCOPE OF ENVIRONMENTAL ANALYSIS

#### 3.4.1 PROJECT CONSTRUCTION CHARACTERISTICS

The Applicant anticipates that the Project’s construction process would span approximately 12 months. The estimated Project construction schedule, organized by construction stage, is summarized in Table 3-1, *Estimated Construction Schedule*. For purposes of analysis in this EIR, construction is assumed to commence in July 2023 and conclude in June 2024. The construction schedule utilized in the analysis represents a “worst-case” analysis scenario should construction occur any time after the respective dates since air pollutant emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per the CEQA Guidelines.

**Table 3-1 Estimated Construction Schedule**

Construction Phase	Duration
Demolition	60 days
Site Preparation & Grading	30 days
Building Construction	160 days
Paving	45 days
Architectural Coating & Landscaping	30 days
<b>Total</b>	<b>12 months</b>

The composition of the construction equipment fleet that the Project Applicant intends to use to construct the Project, which also is used for purposes of analysis is in this EIR, is summarized in Table 3-2, *Estimated Construction Equipment Fleet*.

**Table 3-2 Estimated Construction Equipment Fleet**

Construction Activity	Equipment	Amount	Hours Per Day
Demolition/Crushing	Rubber Tired Dozers	2	8
	Excavators	3	8
	Concrete/Industrial Saws	1	8
	Crushing/Proc. Equipment	1	8
Grading	Graders	1	8
	Excavators	2	8
	Scrapers	2	8
	Rubber Tired Dozers	1	8
	Crawler Tractors	2	8



<b>Construction Activity</b>	<b>Equipment</b>	<b>Amount</b>	<b>Hours Per Day</b>
Building Construction	Forklifts	5	8
	Generator Sets	2	8
	Cranes	2	8
	Welders	2	8
	Crawler Tractors	5	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	1	8
Site Preparation	Rubber Tired Dozers	3	8
	Crawler Tractors	4	8

The Project would require demolition of the existing buildings and asphalt paving on the site. Based on the Project’s preliminary grading plan depicted in Figure 3-8, *Proposed Grading Plan - West*, and Figure 3-9, *Proposed Grading Plan – East*, the Project’s grading operation would result in 9,000 more cubic yards of cut than fill, but final earthwork quantities are subject to final civil engineering design and after final engineering, the earthwork is expected to balance with no import or export of earth material required.

### **3.4.2 PROJECT OPERATIONAL CHARACTERISTICS**

The Project is proposed as a speculative development and the user(s) of the building is not known at this time. For the purposes of this EIR, the Project is assumed to be operational 24 hours per day, seven days per week, with exterior loading and parking areas illuminated at night.

#### ***A. Proposed Site Activities***

The proposed building on the Project Site would operate as an industrial warehouse. Because the user(s) is speculative and some building users require small amounts of warehouse space to be temperature controlled, for purposes of analysis within this EIR it is assumed that the building would include approximately 27,034 s.f. of high-cube cold storage uses (10% of the building space), with remaining portions of the building consisting of warehouse uses. A limitation of 10% of the building for potential cold storage is based on the Project Applicant’s understanding of the cold storage space market demand in the Inland Empire for buildings in the Project’s size range, which tend to have small cold storage needs for perishable products such as nutritional supplements, flowers and plants, medicines, candles, cosmetics, organic textiles, and specialized products, should the building user need to store these types of products. Hazardous materials storage is not expected to occur within the building or on the Project Site; however, small quantities of hazardous chemicals and/or materials –



including but not limited to aerosols, cleaners, fertilizers, lubricants, paints or stains, fuels, ammonia, propane, oils, and solvents – could be utilized during routine Project operations and maintenance.

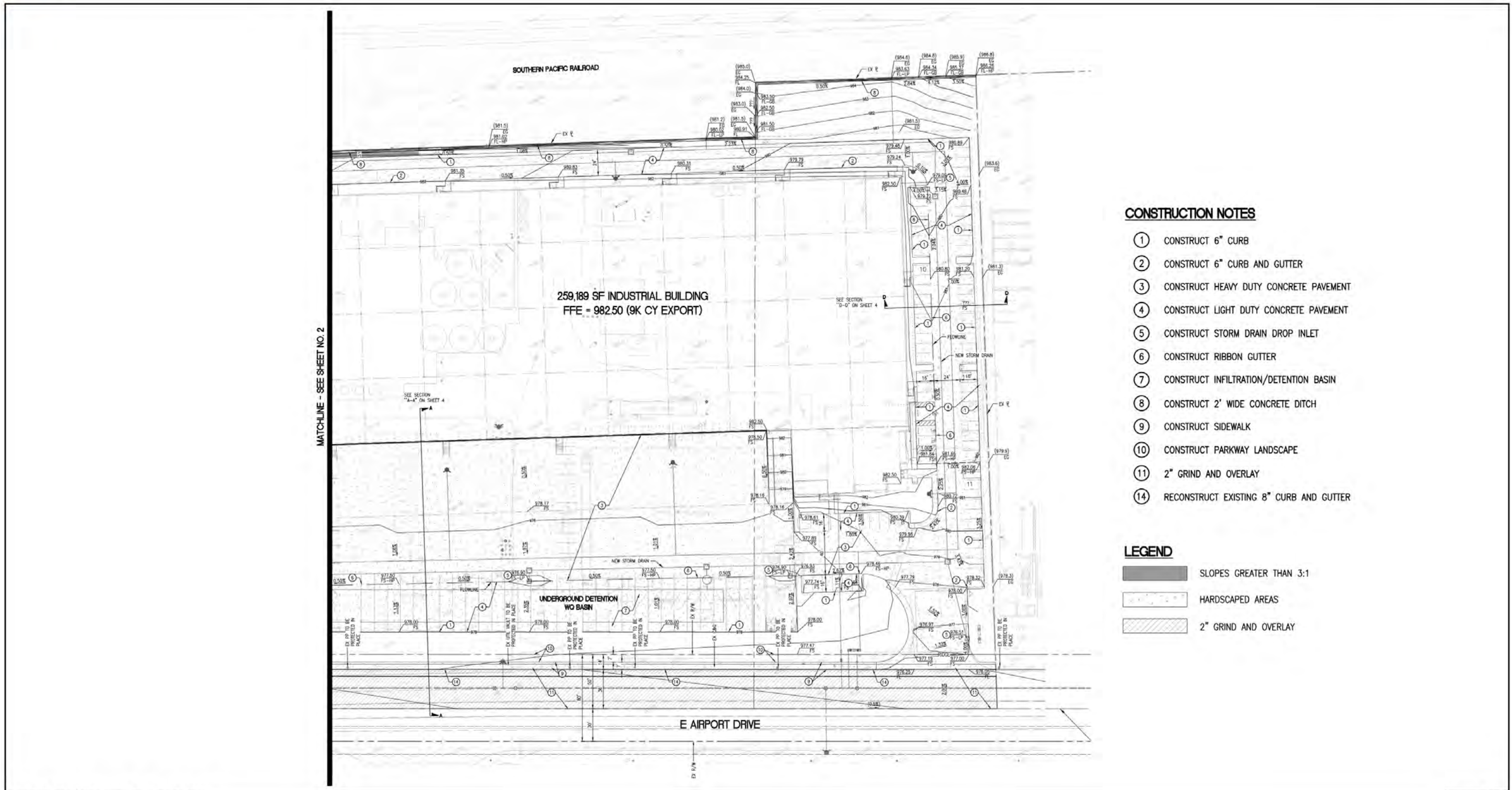
Exterior activities on the Project Site are reasonably assumed to include vehicle movement, parking, and the loading and unloading of tractor trailers at designated loading bays on the southern side of the building. As a practical matter, dock doors on warehouse buildings are not occupied by a truck at all times of the day. There are typically more dock door positions on industrial buildings than are needed for receiving and shipping volumes. The dock doors that are in use at any given time are usually selected based on interior building operation efficiencies. In other words, trucks ideally dock in the position closest to where the goods to be carried by the truck are inside the building. As a result, a number of dock door positions are frequently inactive throughout the day.

### ***B. Traffic***

During operation of the Project, employees, visitors, and vehicles hauling goods would travel to and from the Project Site on a daily basis. Project operations are calculated to generate 475 vehicle trips per day, including 308 passenger vehicle trips and 168 truck trips (in terms of actual vehicles). In order to account for the possibility of 10% of the building space being used for refrigerated uses, trucks associated with the cold-storage use are assumed to have transport refrigeration units (TRUs). Therefore, for modeling purposes 11 trucks (22 truck trips per day) are assumed to be equipped with TRUs. Pursuant to State law, on-road diesel-fueled trucks are required to comply with various air quality and greenhouse gas emission standards, including but not limited to the type of fuel used, engine model year stipulations, aerodynamic features, and idling time restrictions. Compliance with State law is mandatory and inspections of on-road diesel trucks subject to applicable State laws are conducted by the California Air Resources Board (CARB).

## **3.5 SUMMARY OF REQUESTED ACTIONS**

The City of Ontario has primary approval responsibility for the proposed Project. As such, the City of Ontario serves as the Lead Agency for this EIR pursuant to CEQA Guidelines Sections 15050 and 15051. The role of the Lead Agency was previously detailed in EIR Section 1.0, *Introduction*. As part of the approval process for the proposed Project, the City's Planning Commission will hold a public hearing to consider the Project's Development Plan (PDEV22-017). The Planning Commission will consider certification of this EIR, and also will approve, approve with changes, or disapprove proposed PDEV22-017.



**CONSTRUCTION NOTES**

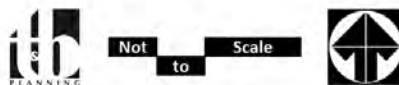
- ① CONSTRUCT 6" CURB
- ② CONSTRUCT 6" CURB AND GUTTER
- ③ CONSTRUCT HEAVY DUTY CONCRETE PAVEMENT
- ④ CONSTRUCT LIGHT DUTY CONCRETE PAVEMENT
- ⑤ CONSTRUCT STORM DRAIN DROP INLET
- ⑥ CONSTRUCT RIBBON GUTTER
- ⑦ CONSTRUCT INFILTRATION/DETENTION BASIN
- ⑧ CONSTRUCT 2' WIDE CONCRETE DITCH
- ⑨ CONSTRUCT SIDEWALK
- ⑩ CONSTRUCT PARKWAY LANDSCAPE
- ⑪ 2" GRIND AND OVERLAY
- ⑭ RECONSTRUCT EXISTING 8" CURB AND GUTTER

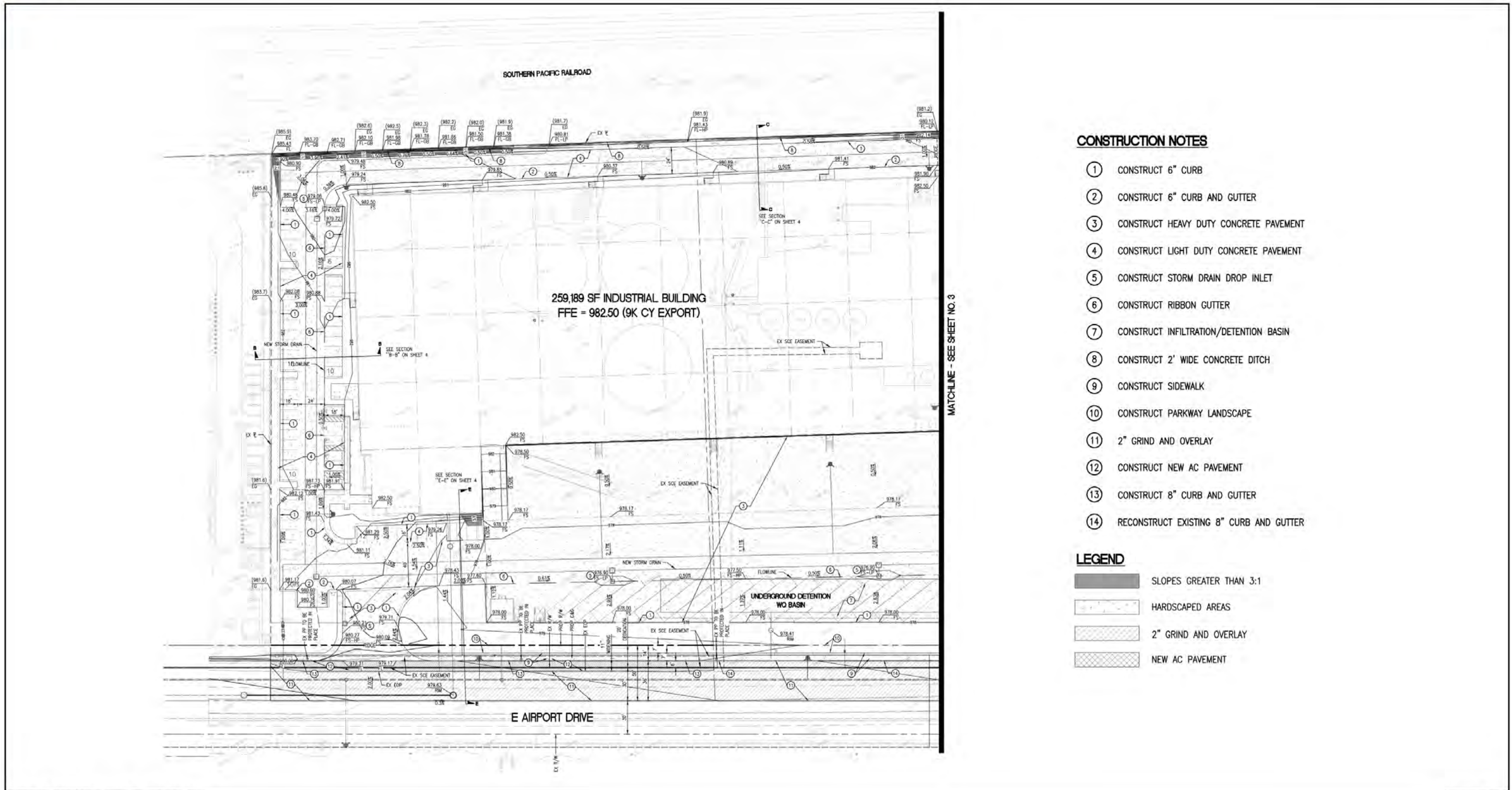
**LEGEND**

- SLOPES GREATER THAN 3:1
- HARDSCAPED AREAS
- 2" GRIND AND OVERLAY

Source(s): WestLAND Group, Inc. (05-08-2023)

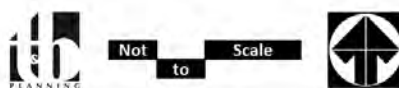
Figure 3-8





Source(s): WestLAND Group, Inc. (05-08-2023)

Figure 3-9



Lead Agency: City of Ontario

Proposed Grading Plan – East

SCH No. 2022090006



### 3.6 RELATED ENVIRONMENTAL REVIEW AND CONSULTATION

Should the City of Ontario certify the Final EIR and approve the Project, additional discretionary and/or ministerial actions would be necessary to implement the proposed Project. Table 3-3, *Project Related Approvals/Permits*, list the agencies that are expected to use this EIR and provides a summary of the subsequent actions associated with the Project. This EIR covers all federal, State, and local government and quasi-governmental approvals which may be needed to construct and implement the Project, whether or not they are explicitly listed in Table 3-3 or elsewhere in this EIR (CEQA Guidelines § 15124(d)).

**Table 3-3 Matrix of Project Approvals/Permits**

Public Agency	Approvals and Decisions
<b>Proposed Project – City of Ontario Discretionary Approvals</b>	
City of Ontario Planning Commission	<ul style="list-style-type: none"> <li>Approve, conditionally approve, or deny Development Plan (PDEV22-017).</li> <li>Certify or decline to certify this EIR along with appropriate CEQA Findings.</li> </ul>
<b>Subsequent City of Ontario Ministerial Approvals</b>	
City of Ontario Subsequent Implementing Approvals	<ul style="list-style-type: none"> <li>Approve precise site plan(s) and landscaping/irrigation plan (s), as may be appropriate.</li> <li>Issue Grading Permits.</li> <li>Issue Building Permits.</li> <li>Approve Road Improvement Plans.</li> <li>Issue Encroachment Permits.</li> <li>Approve Stormwater Pollution Prevention Plan (SWPPP) and Water Quality Management Plan (WQMP).</li> </ul>
<b>Other Agencies – Subsequent Approvals and Permits</b>	
Santa Ana Regional Water Quality Control Board (RWQCB)	<ul style="list-style-type: none"> <li>Issuance of a Construction Activity General Construction Permit.</li> <li>Compliance with National Pollutant Discharge Elimination System (NPDES) Permit.</li> </ul>
San Bernardino County Flood Control District (SBCFCD)	<ul style="list-style-type: none"> <li>Approval of the Project’s proposed drainage improvements.</li> </ul>
Ontario Fire Department (OFD)	<ul style="list-style-type: none"> <li>Approval of fire hydrant locations and fire protection features for the proposed building.</li> </ul>
South Coast Air Quality Management District (SCAQMD)	<ul style="list-style-type: none"> <li>Issuance of construction-related permits.</li> </ul>
Ontario Municipal Utilities Company (OMUC)	<ul style="list-style-type: none"> <li>Approval of proposed water improvements and connections.</li> </ul>
Inland Empire Utilities Agency (IEUA)	<ul style="list-style-type: none"> <li>Approval of proposed sewer improvements and connections.</li> </ul>
Southern California Edison (SCE)	<ul style="list-style-type: none"> <li>Approvals required for the installation of new SCE facilities/connections to service the Project.</li> </ul>



Public Agency	Approvals and Decisions
Southern California Gas Company	<ul style="list-style-type: none"><li>• Approvals required for the installation of new Southern California Gas Company facilities/connections to service the Project.</li></ul>





## 4.0 ENVIRONMENTAL ANALYSIS

### 4.1.1 SUMMARY OF EIR SCOPE

In accordance with CEQA Guidelines Sections 15126-15126.4, this EIR Section 4.0, *Environmental Analysis*, includes analyses of potential direct, indirect, and cumulatively-considerable impacts that could result from planning, construction, and/or operating the proposed Project.

The City of Ontario distributed a NOP for this EIR to public agencies and interested individuals and posted the NOP on its website to solicit input on the scope of environmental study for the Project. The City of Ontario also held a Scoping Meeting to solicit input from interested parties on the scope of study for the EIR. Taking all known information and public comments into consideration, 12 primary environmental subject areas are evaluated in detail in this Section 4.0, as listed below. Each subsection evaluates several specific topics related to the primary environmental subject. The title of each subsection is not limiting; therefore, refer to each subsection for a full account of the subject matters addressed therein.

- |                              |                                     |
|------------------------------|-------------------------------------|
| 4.1 Aesthetics               | 4.7 Hazards and Hazardous Materials |
| 4.2 Air Quality              | 4.8 Hydrology and Water Quality     |
| 4.3 Cultural Resources       | 4.9 Noise                           |
| 4.4 Energy                   | 4.10 Transportation                 |
| 4.5 Geology and Soils        | 4.11 Tribal Cultural Resources      |
| 4.6 Greenhouse Gas Emissions | 4.12 Utilities and Service Systems  |

After conducting preliminary research and in consideration of all comments received by the City on the scope of this EIR and documented in the City's administrative record, the City determined that given the developed condition of the Project Site, the Project Site's location surrounded by industrial uses and a railroad track, the Project's consistency with the property's "Industrial (IND)" General Plan and "Heavy Industrial (IH)" zoning designations, and the construction and operational characteristics of the proposed Project, the Project would not have any reasonable potential to result in significant impacts under eight (8) primary environmental subject areas: Agriculture and Forestry Resources; Biological Resources; Land Use and Planning; Mineral Resources; Population and Housing; Public Services; Recreation; and Wildfire. These eight subjects are addressed in Section 5.0, *Other CEQA Considerations*.

### 4.1.2 SCOPE OF CUMULATIVE EFFECTS ANALYSIS

CEQA requires that an EIR contain an assessment of the cumulative impacts that may be associated with a proposed project. As noted in CEQA Guidelines Section 15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." "A cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects creating related impacts" (CEQA Guidelines Section 15130(a)(1)). As defined in CEQA Guidelines Section 15355:



*‘Cumulative Impacts’ refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.*

- (a) The individual effects may be changes resulting from a single project or a number of separate projects.*
- (b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.*

CEQA Guidelines Section 15130(b) describes two acceptable methods for identifying a study area for purposes of conducting a cumulative impact analysis. These two approaches include: 1) a list of past, present, and probable future projects producing related or cumulative impacts, including if necessary, those projects outside the control of the agency [‘the list of projects approach’], or 2) a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact [‘the summary of projections approach’].

The summary of projections approach is used in this EIR, except for the evaluation of cumulative transportation effects (for purposes of demonstrating General Plan policy compliance) and vehicular-related air quality, greenhouse gas, and noise impacts, for which the analysis combines the summary of projections approach with the manual addition of past, present, and reasonably foreseeable projects (“combined approach”). The City determined the combined approach to be appropriate because long-range planning documents contain a sufficient amount of information to enable an analysis of cumulative effect for all subject areas, with the exception of transportation (and vehicular-related air quality, greenhouse gas, and noise effects), which requires a greater level of detailed study. With the combined approach, the cumulative impact analyses for the air quality, greenhouse gas, noise, and transportation issue areas overstate the Project’s potential cumulatively considerable impacts relative to analyses that rely solely on the list of projects approach or solely on the summary of projections approach; therefore, the combined approach provides a conservative, “worst-case” analysis for the Project’s cumulative air quality, greenhouse gas, noise, and transportation impacts.

For the cumulative impact analyses that rely on the summary projections approach (i.e., all issue areas with the exception of transportation and vehicular-related air quality, greenhouse gas, and noise – as described above), the cumulative study area primarily includes the City of Ontario, City of Fontana, City of Upland, City of Chino, City of Rancho Cucamonga, City of Jurupa Valley, and small portions of unincorporated San Bernardino County. These jurisdictions encompass the southwestern area of San Bernardino County and nearby portion of Riverside County and have similar environmental characteristics as the Project area. The selected study area encompasses the central San Bernardino



Valley, which is largely bounded by prominent topographic landforms, such as the San Gabriel Mountains and San Bernardino Mountains to the north, the San Jacinto Mountains to the east, the Temescal Mountains and Santa Ana Mountains to the south, and the Pomona Valley to the west. This study area exhibits similar characteristics in terms of climate, geology, and hydrology and, therefore, is likely to also have similar biological, archaeological, and tribal cultural resource characteristics as well. This study area also encompasses the service areas of the Project Site's primary public service and utility providers. Areas outside of this study area either exhibit topographic, climatological, or other environmental circumstances that differ from those of the Project area, or are simply too far from the proposed Project Site to produce environmental effects that could be cumulatively-considerable when considered together with the Project's impacts. Exceptions include the cumulative air quality analysis, which considers the entire South Coast Air Basin (SCAB); the greenhouse gas emissions and global climate change analysis, which affects all areas on the planet; and the analysis of potential cumulative hydrology and water quality effects, which considers other development projects located within the Santa Ana River Basin watershed.

Environmental impacts associated with buildout of the Project's cumulative study area were evaluated in CEQA compliance documents prepared for the respective General Plans of each of the above-named jurisdictions. The location where each of these CEQA compliance documents is available for review is provided below. All of the CEQA compliance documents listed below are herein incorporated by reference pursuant to CEQA Guidelines Section 15150.

- The Ontario Plan SEIR (SCH No. 2021070364), available for review at the City of Ontario Planning Department, 303 East B Street, Ontario, CA 91764;
- City of Fontana General Plan EIR (SCH No. 2016021099), available for review at the City of Fontana Planning Division, 8353 Sierra Avenue, Fontana, California 92335;
- City of Rancho Cucamonga General Plan Update EIR (SCH No. 2021050261), available for review at the City of Rancho Cucamonga, 10500 Civic Center Drive, Rancho Cucamonga, CA 91730;
- San Bernardino Countywide Plan EIR (SCH No. 2017101033), available for review at the County of San Bernardino Land Use Services Department – Planning Division 385 North Arrowhead Avenue, 1st Floor, San Bernardino, California 92415;
- City of Upland General Plan EIR (SCH No. 2012041006), available for review at the City of Upland Planning Division, 460 N. Euclid Avenue, Upland, CA 91786;
- City of Chino General Plan EIR (SCH No. 2008091064), available for review at the City of Chino Planning Division, 13220 Central Avenue, Chino, CA 91710;



- City of Jurupa Valley General Plan EIR (SCH No. 2016021025), available for review at the City of Jurupa Valley Planning Department, 8930 Limonite Avenue, Jurupa Valley, California 92509.

### 4.1.3 ANALYSIS FORMAT

Subsections 4.1 through 4.12 of this EIR evaluate the 12 environmental subjects warranting detailed analysis as determined by the City of Ontario in consideration of preliminary research findings, public comments, and technical study. The format of discussion is standardized as much as possible in each section for ease of review. The environmental setting is discussed first, followed by a discussion of the potential environmental impacts that would result from implementation of the Project (which is based on specified thresholds of significance used as criteria to determine whether potential environmental effects are significant).

The thresholds of significance used in this EIR are based on the thresholds of significance identified in Appendix G to the CEQA Guidelines, as most recently updated in December 2018. The thresholds are intended to assist the reader of this EIR in understanding how and why this EIR reaches a conclusion that an impact would or would not occur, and whether the impact would be significant or less than significant.

Serving as the CEQA Lead Agency for this EIR, the City of Ontario is responsible for determining whether an adverse environmental effect identified in this EIR should be classified as significant or less than significant. The standards of significance used in this EIR are based on the independent judgment of the City of Ontario, taking into consideration the City of Ontario Policy Plan; the City of Ontario Municipal Code and adopted City policies; the judgment of the technical experts that prepared this EIR's technical appendices; performance standards adopted, implemented, and monitored by regulatory agencies; and significance standards recommended by regulatory agencies.

As required by CEQA Guidelines Section 15126.2(a), Project-related effects on the environment are characterized in this EIR as direct, indirect, cumulatively-considerable, short-term, long-term, on-site, and/or off-site impacts. A summarized "impact statement" is provided in each Subsection following the analysis. Each Subsection also includes a discussion or listing of the applicable regulatory criteria (laws, policies, regulations) that the Project and its implementing actions are required to comply with (if any). If impacts are identified as significant after mandatory compliance with regulatory criteria, feasible mitigation measures are presented that would either avoid the impact or reduce the magnitude of the impact. For any impact identified as significant and unavoidable, the City of Ontario would be required to adopt a statement of overriding considerations pursuant to CEQA Guidelines Section 15093 in order to approve the Project despite its significant impact(s) to the environment. The statement of overriding considerations would list the specific economic, legal, social, technological, and other benefits of the Project, supported by substantial evidence in the Project's administrative record, that outweigh the unavoidable impacts.



#### 4.1.4 TERMINOLOGY USED IN THIS EIR

The level of significance is identified for each impact in this EIR. Although the criteria for determining significance are different for each topic area, the environmental analysis applies a uniform classification of the impacts based on definitions consistent with CEQA and the CEQA Guidelines:

- No Impact. An adverse change in the physical environment would not occur.
- Less-than Significant Impact. An adverse change in the physical environment would occur but the change would not be substantial or potentially substantial and would not exceed the threshold(s) of significance presented in this EIR.
- Significant Impact. A substantial or potentially substantial adverse change in the physical environment would occur and would exceed the threshold(s) of significance presented in this EIR, requiring the consideration of mitigation measures.

Each Subsection also includes a discussion or listing of the applicable regulatory criteria (laws, policies, regulations, etc.) that the Project is required to comply with (if any). If impacts are identified as significant after mandatory compliance with regulatory criteria, feasible mitigation measures are presented that would either avoid the impact or reduce the magnitude of the impact. The following terms are used to describe the level of significance following the application of recommended mitigation measures:

- Less-than-Significant Impact with Mitigation. A substantial or potentially substantial adverse change in the physical environment would occur that would exceed the threshold(s) of significance presented in this EIR; however, the impact can be avoided or reduced to a less than significant level through the application of feasible and enforceable mitigation measure(s).
- Significant and Unavoidable Impact. A substantial or potentially substantial adverse change in the physical environment would occur that would exceed the threshold(s) of significance presented in this EIR. Feasible and enforceable mitigation measure(s) that have a proportional nexus to the Project's impact are either not available or would not be fully effective in avoiding or reducing the impact to below a level of significance.

For any impact identified as significant and unavoidable, the City of Ontario would be required to adopt a statement of overriding considerations pursuant to CEQA Guidelines Section 15093 in order to approve the Project despite its significant impact(s) to the environment. The statement of overriding considerations would list the specific economic, legal, social, technological, and other benefits of the Project, supported by substantial evidence in the Project's administrative record, that outweigh the unavoidable impact(s).



## 4.1 AESTHETICS

This Subsection describes the aesthetic qualities and visual resources present on the Project Site and in the Site's vicinity, and evaluates the potential effects that the Project may have on these resources. Descriptions of existing visual characteristics, both on-site and in the vicinity of the Project Site, and the analysis of potential impacts to aesthetic resources are based on field observations and Site photographs collected by T&B Planning, Inc. on July 28, 2022; analysis of aerial photography (Google Earth, 2022); and the Project's proposed Site, architecture, and landscaping plans (as described in Section 3.0, *Project Description*, of this EIR). This Subsection also is based on information contained in the Aesthetics section of the certified Final Program SEIR prepared for The Ontario Plan (TOP) 2050 (SCH No. 2021070364), and the City of Ontario Municipal Code (Ontario, 2021a). All references used in this Subsection are listed in EIR Section 7.0, *References*.

### 4.1.1 EXISTING CONDITIONS

#### A. Project Site and Surrounding Areas

The Project Site is located in the northeast portion of the City of Ontario, San Bernardino County, California. The Project Site is bordered by East Airport Drive to the south, industrial uses to the east and west, and the railroad to the north. Under existing conditions, the area surrounding the Project Site is fully developed with industrial land uses, primarily warehousing and manufacturing facilities, as described below and under EIR Subsection 2.3, *Surrounding Land Uses*.

North: A railroad right-of-way adjoins the Project Site to the north. Emser Tile Distribution Center (5300 Shea Center Drive) is located to the north of the railroad tracks.

South: East Airport Drive adjoins the Project Site to the south. Two warehouses are located south of East Airport Drive at the street addresses of 5600 East Airport Drive and 5200 East Airport Drive. Current tenants at the warehouses include Costco and XPO Logistics.

West: A Verizon facility (5351 East Airport Drive) adjoins the Project Site to the west.

East: A industrial gas supplier, Praxair, Inc (5735 East Airport Drive) adjoins the Project Site to the east.

Topographically, the Project Site is perceived as flat but, actually, slopes gently to the south-southeast at a gradient of less than one percent (SCG, 2022a). The Site is developed under existing conditions. There are no rock outcroppings or unique topographic features on the Project Site. Minimal vegetation, primarily turf and shrubs with a few trees, is located along the southern perimeter of the Project Site.

Pursuant to CEQA Guidelines Section 15125 and as explained in Section 2.0 of this EIR, the physical environmental condition for purposes of establishing the setting of this EIR is the environment as it existed at the time the EIR's NOP was released for public review. The NOP for this EIR was released on September 1, 2022. As of that approximate date, the Project Site is occupied by Verhoeven, a grain processing facility (sub-tenant), and The Scoular Company, a corn storage and distribution facility.



The eastern portion of the Project Site contains grain storage silos, grain mill area, and five buildings that are used for maintenance and repair, grain storage, and service shop. The western portion of the Project Site contains silo grain storage, with an office trailer. A vehicle wash-down area is also present on the northeastern portion of the Site, and three to four septic systems are located onsite.

Figure 4.1-1 through Figure 4.1-3 illustrate a photographic inventory of the Project Site and are relied upon herein to describe the Project Site's aesthetic condition and character. These photographs provide a representative visual depiction of the Site's visual characteristics as seen from surrounding public viewing areas, which consist of public roads adjacent to the Project Site. The Site photographs presented on the following pages were stitched together from multiple individual photographs in order to provide wider panoramic views of the Project Site and its surroundings. The photographs were all taken during the same session and reflect a field of view approximately 5 feet above the ground.

### ***B. Scenic Vistas and Scenic Resources***

The Project Site is located within a relatively flat valley floor surrounded by rugged hills and mountains. As shown on Figure 4.1-1 through Figure 4.1-3, the Project Site does not contain any scenic resources, such as buildings or landscaping of aesthetic value, or any landforms of visual interest.

Major scenic resources in Ontario that contribute to scenic vistas include the San Gabriel Mountains to the north of the City. The San Gabriel Mountains are located approximately 8.7 miles north of the Project Site and are visible under clear weather conditions. The lower elevations of the San Gabriel Mountains are obscured from public viewing areas abutting the Project Site by the existing buildings and grain storage silos and storage onsite. Views of the upper elevations of the San Gabriel Mountains are partially obscured by onsite buildings; views of the San Gabriel Mountains, also, can sometimes be obscured from the Project Site and its surroundings during hazy conditions that are common to the Inland Empire Area.

### ***C. Light and Glare***

Artificial light is associated with the evening and nighttime hours, and sources may include streetlights, illuminated signage, and vehicle headlights. Glare is primarily a daytime occurrence caused by the reflection of sunlight or artificial light from highly polished surfaces, such as window glass or reflective materials, and, to a lesser degree, from broad expanses of light-colored surfaces. Glare can also be produced during evening and nighttime hours by artificial light directed toward a light-sensitive land use.

The Project Site contains sources of artificial, exterior lighting under existing conditions since it is currently operating as a grain processing facility and corn storage and distribution facility. Artificial lighting sources include building-mounted fixtures within the Project Site, street lights along East Airport Drive, and from developed properties to the east, west and south.



**View 1: View from the Southwestern corner of the Project Site along E Airport Dr, looking North, Northeast, and East.**

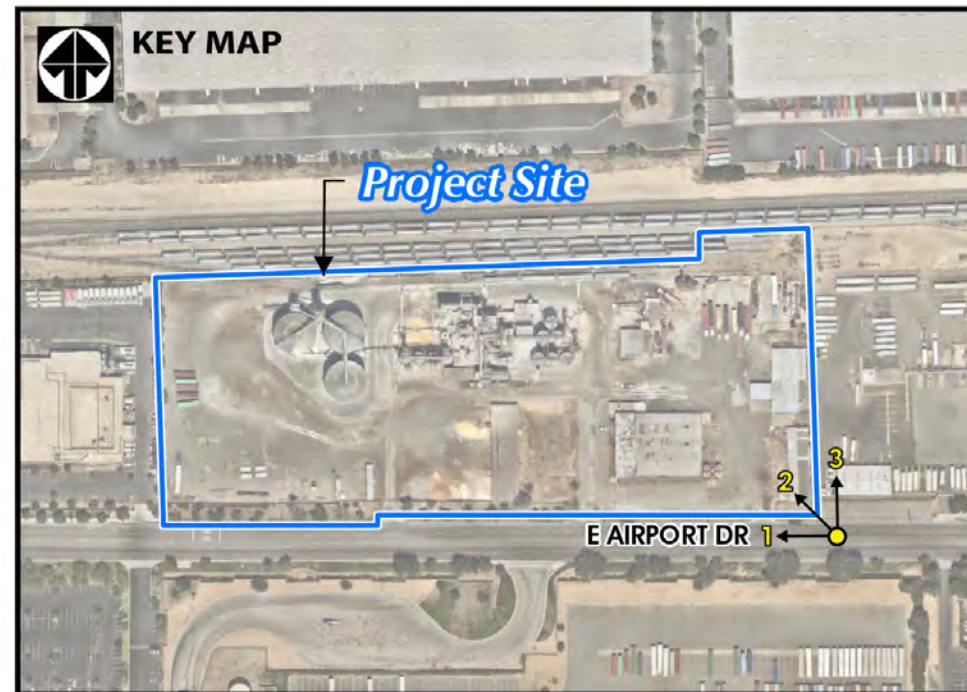
Figure 4.1-1





**View 2: View from South of the Project Site along E Airport Dr, looking Northwest, North, and Northeast.**

Figure 4.1-2



**View 3: View from the Southeaster corner of the Project Site along E Airport Dr, looking West, Northwest, and North.**

Figure 4.1-3



#### 4.1.2 REGULATORY SETTING

##### ***A. State Plans, Policies, and Regulations***

###### ***1. California Scenic Highways***

The California Department of Transportation (Caltrans) manages the State Scenic Highway Program, established in 1963 through Senate Bill 1467, Streets and Highways Code, Sections 260 through 263 to protect and enhance the natural scenic beauty of California highways and adjacent corridors, through special conservation treatment. A highway may be designated as scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. Scenic corridors consist of land that is visible from, adjacent to, and outside the highway right-of-way, and is comprised primarily of scenic and natural features. Topography, vegetation, viewing distance, and/or jurisdictional lines determine the corridor boundaries. Existing law provides Caltrans with full possession and control of all State highways, while this legislation places the Scenic Highway Program under the stewardship of Caltrans. The legislation further declares the intent of the State to assign responsibility for the regulation of land use and development along scenic highways to the appropriate State and local governmental agencies. Scenic highways are classified as either Officially Designated or Eligible for designation and Caltrans maintains the lists of these highways. (Caltrans, 2021)

There are no officially-designated scenic road or highway corridors within the City of Ontario (Caltrans, 2021).

##### ***B. Local Plans, Policies, and Regulations***

###### ***1. The Policy Plan***

The Policy Plan, part of The Ontario Plan, serves as the City's General Plan. The Policy Plan Community Design Element has several principles, goals, and policies that are applicable to the Project to distinguish Ontario as a unique, highly aesthetic built environment that fosters enjoyment, financial benefit, and well-being for the entire community. On August 16, 2022, the City approved TOP 2050, which include updates to the Policy Plan.

###### ***2. City of Ontario Municipal Code***

The City of Ontario Municipal Code contains regulations regarding historical preservation and general design guidelines that address the aesthetic aspects of residential, commercial, and industrial development:

- **Title 9. Development Code, Chapter 1: Development Code**, contains regulations for landscaping, lighting, signage, and setbacks in the various land use districts. All on-site lighting fixtures, including parking lot lighting, security lighting and decorative lighting, be indirect or diffused, or shielded or directed away from residential areas.



### 4.1.3 METHODOLOGY FOR EVALUATING AESTHETICS IMPACTS

The analysis of aesthetics impacts will focus on changes to scenic vistas, viewsheds, and scenic resources, visual character, and the introduction of new sources of light and glare.

The analysis of potential impacts to scenic vistas, viewsheds, and scenic resources will identify whether the Project would block or otherwise substantially and adversely affect a unique view of a scenic vista(s) or scenic resource as seen from a public viewing location(s), such as a public road, park, trail, and/or other publicly-owned property at which the general public is legally authorized to use or congregate. Effects to scenic vistas from private properties will not be considered because the City's Policy Plan calls for the protection of public views and the City does not have any ordinances or policies in place that protect views from privately-owned property.

The U. S. Census Bureau defines an "urbanized area" as a densely settled core of census tracts and/or census blocks that have 50,000 or more residents and meet minimum population density requirements while also being adjacent to territory containing non-residential urban land uses. According to the 2010 Census Urbanized Area Reference Map, the Project is located within an urbanized area (US Census, 2012); therefore, the analysis of potential impacts to visual character will consider whether the Project design conflicts with applicable zoning and other applicable regulations governing scenic quality.

Lastly, the analysis of light and glare will consider if the Project would directly expose the Project area with bright lights or create unwanted light in the night sky including light trespass, sky glow, or over-lighting, the Project would adversely affect day or nighttime views in the area.

### 4.1.4 BASIS FOR DETERMINING SIGNIFICANCE

According to Section I of Appendix G to the CEQA Guidelines, the proposed Project would result in a significant impact to aesthetics if the Project or any Project-related component would (OPR, 2019):

- a. *Have a substantial adverse effect on a scenic vista;*
- b. *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;*
- c. *In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality;*
- d. *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*



#### 4.1.5 IMPACT ANALYSIS

***Threshold a: Would the Project have a substantial adverse effect on a scenic vista?***

A significant impact would occur if a project were to introduce incompatible scenic elements within a field of view containing a scenic vista or substantially block views of a scenic vista. Viewsheds refer to the visual qualities of the geographical area that is defined by the horizon, topography, and other natural features that give an area its visual boundary and context, or by artificial developments that have become prominent visual components of an area.

The City of Ontario's General Plan (Policy Plan) does not identify scenic vistas within the City; however, The Policy Plan (Policy CD1-5) requires all major north-south streets be designed and redeveloped to feature views of the San Gabriel Mountain. The Project Site is located at East Airport Drive, a minor east-west minor arterial street, as identified in the Functional Roadway Classification Plan (Figure M-2) of the Mobility Element within the Policy Plan (Ontario, 2022a). Additionally, the Project Site is bordered by industrial uses to the east and west. The San Gabriel Mountains are partially visible from the East Airport Drive segment that abuts the Project Site (while looking north); however, views of the Mountains are largely obstructed by existing onsite structures and improvements. The proposed warehouse building would not obscure views of the San Gabriel Mountains substantially more than views of the Mountains are already obscured under existing conditions, and views of the San Bernardino Mountains would continue to be available above the proposed building. Therefore, the visibility – or lack thereof – of the San Gabriel Mountains from public viewing areas along the Project Site frontage would not change substantially with implementation of the Project. Accordingly, given that the Project Site is not a scenic vista, is not located near a designated scenic resource, and unique, prominent, and scenic views would not be obscured by the Project, implementation of the Project would not have a substantial adverse effect on a scenic vista and less-than-significant impacts would occur.

***Threshold b: Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?***

The City of Ontario is served by three freeways: I-10, I-15, and SR-60. I-10 and SR-60 traverse the northern and central portion of the City, respectively, in an east–west direction. I-15 traverses the northeastern portion of the City in a north–south direction. These segments of I-10, I-15, and SR-60 have not been officially designated as scenic highways by the California Department of Transportation. The nearest eligible State scenic highway is SR-142, approximately 12.7 miles to the southwest of the Project Site (Caltrans, 2021). In addition, there are no historic buildings or any scenic resources identified on or in the vicinity of the Project Site. Therefore, the Project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a state scenic highway. No impacts are anticipated.



***Threshold c:*** *In non-urbanized areas, would the Project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

According to CEQA Guidelines Section 15387, urban areas mean a central city or group of contiguous cities with a population of 50,000 or more, together with adjacent densely populated areas having a population density of at least 1,000 persons per square mile. According to the 2010 Census Urbanized Area Reference Map, the Project is located within an urbanized area (US Census, 2012). As such, the potential impacts of the Project under this threshold are assessed based on whether the Project would conflict with applicable zoning and other regulations governing scenic quality.

The Project Site is zoned Heavy Industrial (IH) and the Project is required to comply with the development standards established in Section 6.01.025, *Industrial Zoning Districts*, of the City’s Development Code. The intent and purpose of Section 6.01.025 are to ensure that development within the industrial zoning districts of the City will contribute toward an urban environment of stable, desirable character, which is harmonious with existing and future development, and is consistent with the goals and policies of the Policy Plan component of TOP. Furthermore, these regulations are to ensure that the appearance of industrial buildings and uses are compatible with the visual character of the area in which they are located (Ontario, 2021b). Table 4.1-1, *Zoning District Development Standards Consistency Analysis*, addresses the Project’s consistency with applicable development standards outlined in the City’s Development Code. As shown below, the Project would not conflict with the applicable development standards in the City’s Development Code established for the IH zone. Therefore, no adverse impacts are anticipated.

**Table 4.1-1 Zoning District Development Standards Consistency Analysis**

Applicable Development Standard	Project Consistency
Industrial Zoning District Development Standards	
A. Site Development Standards	
1. Minimum Lot Area: 10,000 s.f.	<b>Consistent.</b> As shown in Figure 3-4, <i>Proposed Site Plan</i> , the Project Site area is 569,954 s.f., which is substantially larger than the required minimum lot area of 10,000 s.f. Therefore, the Project would be consistent with the minimum lot requirement.
2. Maximum Floor Area Ratio (FAR): 0.55	<b>Consistent.</b> As shown in Figure 3-4, <i>Proposed Site Plan</i> , the Project Site has a FAR of 0.47, which would not exceed the maximum FAR of 0.55. Therefore, the Project would be consistent with the maximum FAR requirement.
3. Minimum Lot Dimensions: 100 FT – Lot Width; 100 FT – Lot Depth	<b>Consistent.</b> As shown in Figure 3-4, <i>Proposed Site Plan</i> , the Project’s lot width is approximately 1,200 feet and the depth is approximately 484 feet, which exceed the minimum 100-foot lot width and depth requirement.



Applicable Development Standard	Project Consistency
	Therefore, the Project is consistent with the minimum lot dimensions requirement.
<p>4. Minimum Landscape Coverage</p> <p>a. Interior Lots: 10%</p> <p>b. Corner Lots: 15%</p> <p>c. Off-Street Parking Areas: 7%</p>	<p><b>Consistent.</b> As shown in Figure 3-4, <i>Proposed Site Plan</i>, the Project Site is an interior lot and the Project’s landscape coverage would meet the City’s minimum 10% landscape coverage requirement. Therefore, the Project is consistent with the minimum landscape coverage.</p>
<p>5. Minimum Parking Space and Drive Aisle Separations</p> <p>a. Parking Space or Drive Aisle to Street Property Line: 10 FT</p> <p>b. Parking Space or Drive Aisle to Interior Property Line: 5 FT</p> <p>c. Parking Space to Buildings, Walls, and Fences: 10 FT – Areas adjacent to public entries and office areas; 5 FT – Areas adjacent to other building areas</p> <p>d. Drive Aisles to Buildings, Walls, and Fences: 10 FT</p>	<p><b>Consistent.</b> As shown in Figure 3-4, <i>Proposed Site Plan</i>, there is a 20-foot landscape buffer between the Project Site parking space and drive aisle area and the street and interior property line. Additionally, the development standards state that “within yard areas fully screened by a decorative wall, there shall be no minimum drive aisle or parking space setback required”.</p> <p>There is a 9-foot landscape buffer on the western side between the parking space and the proposed building, 6 foot landscape buffer on the eastern side, and 16 foot separation on the southern side adjacent to the secondary office area.</p> <p>Drive aisles surrounding the eastern, western, and southern side of the building are separated by parking spaces and landscaping, exceeding the minimum 10-foot requirement. Additionally, along the northern side of the building, there is a 10-foot landscape buffer between the building and the drive aisle.</p> <p>Therefore, the Project is consistent with the minimum parking space and drive aisle separations.</p>
<p>6. Minimum Screened Loading and Storage Yard Separations</p> <p>a. Enclosed Loading and Storage Yard to Street Property Line: 20 FT – Freeways; 20 FT - Arterial Streets; 10 FT - Collector/Local Streets</p> <p>b. Screened Loading and Storage Yard to Interior Property Line: 0 FT</p> <p>c. Screened Loading and Storage Yard to Buildings, Walls, and Fences: 0 FT</p>	<p><b>Consistent.</b> As discussed above, the Project is located along an arterial street. As shown in Figure 3-4, <i>Proposed Site Plan</i>, the proposed truck yard would be 32 feet from East Airport Drive. Therefore, the Project is consistent with the minimum screened loading and storage yard separations.</p>
<p>7. Walls, Fences and Obstructions</p> <p>Refer to Section 6.02.025 (Design Standards for Nonresidential Zoning Districts).</p>	<p><b>Consistent.</b> As shown in Figure 3-4, <i>Proposed Site Plan</i>, a 14-foot-tall concrete tilt screen wall would border the Project Site’s southern boundary along the trailer parking spaces, which would meet the minimum height requirement of 8 feet. Site plans will be subject to review by the Planning Department prior to issuance of building permits. The Project would comply with</p>



Applicable Development Standard	Project Consistency
	Section 6.02.025: Design Standards for Nonresidential Zoning Districts for Walls, Fences, and Obstructions.
8. Off Street Parking Refer to Division 6.03 (Off-Street Parking and Loading).	<b>Consistent.</b> The Project would provide a total of 251 parking spaces, which is within the minimum requirement of 251 parking spaces. The Project would comply with Section 6.03 Off-Street Parking and Loading.
9. Property Appearance and Maintenance Refer to Division 6.10 (Property Appearance and Maintenance).	<b>Consistent.</b> The Project Site would be redeveloped with a new warehouse distribution facility, which has been designed to be visually compatible with the adjacent building field colors. The Project would comply with Section 6.10 Property Appearance and Maintenance.
10. Historic Preservation Certain portions of commercial zoning districts are identified as historic or potentially historic, and are listed on the City’s Historic Resources Eligibility List. Development regulations set forth in Division 7.01 (Historic Preservation), and application processing and permitting regulations set forth in Division 4.02 (Discretionary Permits and Actions) and of this Development Code, shall apply in these instances.	<b>Not Applicable.</b> The Project is not located in a commercial zoning district that is identified as historic or potentially historic.
11. Signs Refer to Division 8.1 (Sign Regulations).	<b>Consistent.</b> Site plans, including signage plans, will be subject to review by the Planning Department prior to issuance of building permits to ensure compliance with Division 8.1 Sign Regulations.
12. Security Standards Refer to Ontario Municipal Code Title 4, Chapter 11 (Security Standards for Buildings).	<b>Consistent.</b> The Project would be required to comply with construction Site security requirements as stated in the Standard Conditions. Site plans will be subject to review by the Planning Department and Police Department prior to issuance of building permits (pursuant to the City’s Building Security Ordinance). The Project would be required to comply with the Ontario Municipal Code.
13. Noise: Buildings shall be designed and constructed to mitigate noise levels from exterior sources. Refer to OMC, Tile 5 (Public Welfare, Morals, and Conduct), Chapter 29 (Noise).	<b>Consistent.</b> As discussed in Section 4.9, <i>Noise</i> , the Project would not result in significant noise impacts and the Project has been constructed to mitigate noise levels.
<b>B. Building Development Standards</b>	
1. Maximum Area Per Building: N/A	-
2. Minimum Street Setback a. From Freeway Property Line: 20FT b. From Arterial Street Property Line: 10 FT - Holt Boulevard; 20 FT - All Other Arterial Streets c. From Collector and Local Street Property Line: 10 FT	<b>Consistent.</b> As discussed above, the Project is located along an arterial street. As shown in Figure 3-4, <i>Proposed Site Plan</i> , the proposed truck yard would be 32 feet from East Airport Drive and the proposed building would be further north. Therefore, the Project would be consistent with the minimum street setback.
3. Minimum Interior Property Line Setback: 0 FT	-





Applicable Development Standard	Project Consistency
4. Maximum Height: 55 FT	<b>Consistent.</b> The proposed building would be 49 feet in height and would not exceed the Zoning District Development Standards’ height limit of 55 feet. Accordingly, the Project’s proposed building height would comply with the City’s permitted height in the IH zone.
5. Minimum Setback from Major Pipelines (to habitable structures): 50FT	<b>Not Applicable.</b> The Project Site is not located along the major pipelines within the City.

***Threshold d: Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?***

The analysis of light and glare describes the existing light and glare environments in the Project area, identifies the light- and glare-sensitive land uses in the area, describes the light and glare sources under the Project, and qualitatively evaluates whether the Project would result in a substantial increase in nighttime lighting and daytime glare as seen from the area’s sensitive uses. The analysis of lighting impacts focuses on whether the Project would cause or substantially increase adverse night time lighting effects on light sensitive uses. Included in this analysis is consideration of the affected street frontages, the direction in which Project lighting would be directed, the potential for sunlight to reflect off the exterior surfaces of the proposed buildings, and the extent to which glare would interfere with the operation of motor vehicles or other activities.

Under existing conditions, the Project Site is surrounded by industrial uses and railroad tracks and street lights are located along East Airport Drive. New lighting would be introduced to the Site with the development of the Project. Pursuant to the requirements of the City’s Development Code, on-site lighting is required to be shielded, diffused or indirect, to avoid glare to pedestrians or motorists. In addition, lighting fixtures are required to be selected and located to confine the area of illumination to within the Project Site and minimize light spillage. Furthermore, Site lighting plans are subject to review by the City’s Planning Department and Police Department prior to issuance of building permits (pursuant to the City’s Building Security Ordinance).

With respect to glare, a majority of Project building materials would consist of tilt-up concrete panels which are low reflective. Although the building would incorporate some glass elements, the glass would result in minimal glare effects because proposed window glazing would be low reflective, would be set back from East Airport Drive at a distance and would be buffered from East Airport Drive by landscaping. Therefore, implementation of the Project would not result in a significant source of light or glare that would adversely affect daytime or nighttime views and impacts would be less than significant.

**4.1.6 CUMULATIVE IMPACT ANALYSIS**

The CEQA Guidelines define a “cumulative impact” as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts”



(CEQA Guidelines Section 15355). The Project's effects to scenic views of the San Gabriel Mountains, if any, would be localized to the immediate Project Site area and would not extend beyond the public viewing areas that immediately abut the Project Site (East Airport Drive). The views that would be affected only occur abutting the Project Site and the Project does not contain any off-site components that could adversely affect scenic views that occur elsewhere in the City. Furthermore, the Project's impacts to local scenic views are inherently site specific and not influenced or exacerbated by effects to scenic views that may occur at other, off-site properties. Because of the site-specific nature of these impacts, there would be no direct or indirect connection to similar potential issues or cumulative effects to or from other properties pursuant to Threshold "a."

As noted under the analysis of Threshold "b," the Project Site is not located within close proximity to any designated State scenic routes and does not contain any scenic resources. Therefore, the Project has no potential contribute to a cumulatively significant impact to scenic resources within a designated scenic route corridor.

Under existing conditions, the area surrounding the Project Site is entirely developed with industrial land uses. No new or pending development projects are known to occur in the area surrounding the Project Site. Accordingly, the Project would not contribute to cumulatively considerable impacts to local visual quality. Notwithstanding, as with the Project, any re-development in the surrounding area would be subject to applicable development regulations and design standards, including, but not limited to the Ontario Development Code. Mandatory compliance to applicable development regulations and design standards would ensure that developments would incorporate high quality building materials, site design, and landscaping to preclude potential conflicts with applicable zoning and other regulations governing visual quality.

With respect to potential cumulative light and glare impacts, the Project would be required to comply with City's Development Code, which sets standards for exterior lighting/fixtures. The restriction on unshielded light fixtures and "spill over" lighting enforced by these lighting regulations has the effect of minimizing light and glare that would affect daytime views and/or create sky glow. Additionally, development projects with artificial light sources in surrounding jurisdictions would be required to comply with the light reduction requirements applicable in their respective jurisdiction. Although cumulative development in the Project's surrounding area is expected to introduce new sources of lighting and potentially reflective materials, the required compliance with the applicable legal standard and code requirements would ensure that future cumulative development does not introduce substantial sources of lighting or glare. As such, the Project would not contribute to cumulatively-considerable, adverse impacts to the existing daytime or nighttime views of the Project Site or its surroundings.

#### 4.1.7 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold a: Less-than-Significant Impact. The Project would not substantially affect a scenic vista. The Project Site does not contain any designated scenic vistas or scenic corridors. The Project would not substantially affect views of the San Gabriel Mountains from nearby public viewing areas.



Threshold b: No Impact. The Project Site is not located within the viewshed of a scenic highway and does not contain scenic resources.

Threshold c: No Impact. The Project would not conflict with applicable zoning and other regulations governing scenic quality during Project construction or operation. The Project is consistent with the existing and surrounding industrial land uses.

Threshold d: Less-than-Significant Impact. Compliance with the City's Development Code requirements for artificial lighting would ensure less-than-significant impacts associated with light and glare affecting day or nighttime views in the area from on-site lighting elements.

#### **4.1.8 MITIGATION**

Project impacts would be less than significant and mitigation is not required.



## 4.2 AIR QUALITY

This Subsection is primarily based on two technical studies that were prepared by Urban Crossroads, Inc. to evaluate the potential for Project-related construction and operational activities to result in adverse effects on local and regional air quality. The first report, an air quality impact analysis (AQIA), is titled “5355 East Airport Drive Air Quality Impact Analysis,” dated August 30, 2022, and is included as *Technical Appendix B1* to this EIR (Urban Crossroads, 2022a). The second report, a mobile source health risk assessment (HRA), is titled “5355 East Airport Drive Mobile Source Health Risk Assessment,” dated August 30, 2022, and is included as *Technical Appendix B2* to this EIR (Urban Crossroads, 2022b). All references used in this Subsection are listed in EIR Section 7.0, *References*.

### 4.2.1 EXISTING CONDITIONS

#### A. Atmospheric Setting

The Project Site is located in the South Coast Air Basin (SCAB, or “Basin”), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAB encompasses approximately 6,745 square miles and includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The SCAB is bound by the Pacific Ocean to the west; the San Gabriel, San Bernardino, and the San Jacinto Mountains to the north and east, respectively; and the San Diego County line to the south. (Urban Crossroads, 2022a, p. 9)

#### B. Regional Climate

The regional climate – temperature, wind, humidity, precipitation, and the amount of sunshine – has a substantial influence on air quality. The SCAB’s distinctive climate is determined by its terrain and geographical location, which comprises a coastal plain connected to broad valleys and low hills bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter. The SCAB is semi-arid, with average annual temperatures varying from the low-to-middle 60s, measured in degrees Fahrenheit (F); however, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of the SCAB’s climate. Humidity restricts visibility in the SCAB and the relative high humidity heightens the conversion of sulfur dioxide (SO<sub>2</sub>) to sulfates (SO<sub>4</sub>). The marine layer provides an environment for that conversion process, especially during the spring and summer months. Inland areas of the SCAB, including where the Project Site is located, show more variability in annual minimum/maximum temperatures and lower average humidity than coastal areas within the SCAB due to decreased marine influence. (Urban Crossroads, 2022a, p. 9)

More than 90 percent of the SCAB’s rainfall occurs between November and April. The annual average rainfall within the SCAB varies between approximately 9 inches in Riverside to 14 inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the SCAB. Due to its generally clear weather, about three-quarters of available sunshine is received in the SCAB; the remaining one-quarter is absorbed by clouds. The abundant



amount of sunshine (and its associated ultraviolet radiation) is a key factor to the photochemical reactions of air pollutants in the SCAB. (Urban Crossroads, 2022a, pp. 9-10)

Dominant airflow direction and speed are the driving mechanisms for transport and dispersion of air pollution. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with storms moving through the region from the northwest. This period also brings 5 to 10 periods of strong, dry offshore winds, locally termed “Santa Anas” each year. During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind. Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over southern California. During the nighttime, heavy, cool air descends mountain slopes and flows through the mountain passes and canyons as it follows the lowering terrain toward the ocean. (Urban Crossroads, 2022a, p. 10)

In the SCAB, there are two distinct temperature inversion structures that control the vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an impervious lid to pollutants over the entire SCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level. A second inversion-type forms in conjunction with the drainage of cool air off the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter, when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as nitrogen oxides and carbon monoxide, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline. (Urban Crossroads, 2022a, p. 10)

### ***C. Criteria Pollutants and Associated Human Health Effects***

The federal government and State of California have established maximum permissible concentrations for common air pollutants that may pose a risk to human health or would otherwise degrade air quality and adversely affect the environment. These regulated air pollutants are referred to as “criteria pollutants.” An overview of the common criteria air pollutants in the SCAB, their sources, and associated effects to human health are summarized below (refer also to Section 2.4 of the Project’s AQIA in *Technical Appendix B1* to this EIR for a detailed discussion of criteria pollutants).

- **Carbon Monoxide (CO)** is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest in the winter during the morning, when there is little to no wind and surface-based inversions trap the pollutant at ground levels. CO is emitted directly from internal combustion engines; therefore, motor vehicles operating at slow speeds are the



primary source of CO and the highest ambient CO concentrations in the SCAB are generally found near congested transportation corridors and intersections.

#### Health Effects

Inhaled CO does not directly affect the lungs but affects tissues by interfering with oxygen transport and competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COH<sub>b</sub>). Therefore, health conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. The most common symptoms associated with CO exposure include headache, nausea, vomiting, dizziness, fatigue, and muscle weakness. Individuals most at risk to the effects of CO include fetuses, patients with diseases involving heart and blood vessels, and those with chronic oxygen deficiency.

- **Sulfur Dioxide (SO<sub>2</sub>)** is a colorless gas or liquid. SO<sub>2</sub> enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO<sub>2</sub> oxidizes in the atmosphere, it forms sulfates (SO<sub>4</sub>). Collectively, these pollutants are referred to as sulfur oxides (SO<sub>x</sub>).

#### Health Effects

SO<sub>2</sub> is a respiratory irritant to people afflicted with asthma. After a few minutes' exposure to low levels of SO<sub>2</sub>, asthma sufferers can experience breathing difficulties, including airway constriction and reduction in breathing capacity. Although healthy individuals do not exhibit similar acute breathing difficulties in response to SO<sub>2</sub> exposure at low levels, animal studies suggest that very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract.

- **Nitrogen Oxides (NO<sub>x</sub>)** consist of nitric oxide (NO), nitrogen dioxide (NO<sub>2</sub>) and nitrous oxide (N<sub>2</sub>O) and are formed when nitrogen (N<sub>2</sub>) combines with oxygen (O<sub>2</sub>). Their lifespan in the atmosphere ranges from 1 to 7 days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. Nitrogen oxides are typically created during combustion processes, and are major contributors to smog formation and acid deposition.

#### Health Effects

NO<sub>2</sub> is a criteria air pollutant and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere, and reduced visibility. Of the nitrogen oxide compounds, NO<sub>2</sub> is the most abundant in the atmosphere. As ambient concentrations of NO<sub>2</sub> are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO<sub>2</sub> than those indicated by regional monitoring stations. Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO<sub>2</sub>. Short-term exposure to NO<sub>2</sub> can result in resistance to air flow



and airway contraction in healthy subjects. Exposure to NO<sub>2</sub> can result decreases in lung functions in individuals with asthma or chronic obstructive pulmonary diseases (e.g., chronic bronchitis, emphysema), as these individuals are more susceptible to the effects of NO<sub>x</sub> than healthy individuals.

- **Ozone (O<sub>3</sub>)** is a highly reactive and unstable gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NO<sub>x</sub>), both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, warm temperatures, and light wind conditions are favorable to the formation of this pollutant.

#### Health Effects

Short-term exposure (lasting for a few hours) to ozone at levels typically observed in southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Individuals exercising outdoors, children, and people with pre-existing lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible sub-groups for ozone effects. Children who participate in multiple outdoor sports and live in communities with high ozone levels have been found to have an increased risk for asthma.

- **Particulate Matter less than 10 microns (PM<sub>10</sub>) and less than 2.5 microns (PM<sub>2.5</sub>)** are air pollutants consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols that are 10 microns or smaller or 2.5 microns or smaller, respectively. These particles are formed in the atmosphere from primary gaseous emissions that include sulfates formed from SO<sub>2</sub> release from power plants and industrial facilities and nitrates that are formed from NO<sub>x</sub> release from power plants, automobiles, and other types of combustion sources. The chemical composition of fine particles is highly dependent on location, time of year, and weather conditions.

#### Health Effects

The small size of PM<sub>10</sub> and PM<sub>2.5</sub> allows them to enter the lungs where they may be deposited, resulting in adverse health effects. Elevated ambient concentrations of fine particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) have been linked to an increase in respiratory infections, number, and severity of asthma attacks, and increased hospital admissions. Some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in life-span, and an increased mortality from lung cancer. Daily fluctuations in PM<sub>2.5</sub> concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long-term exposure to particulate matter. The elderly, people with pre-



existing respiratory or cardiovascular disease, and children, appear to be the most susceptible to the effects of high levels of PM<sub>10</sub> and PM<sub>2.5</sub>.

- **Volatile Organic Compounds (VOCs) and Reactive Organic Gasses (ROGs)** are a family of hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. Both VOCs and ROGs are precursors to ozone and contribute to the formation of smog through atmospheric photochemical reactions. Individual VOCs and ROGs have different levels of reactivity; that is, they do not react at the same speed or do not form ozone to the same extent when exposed to photochemical processes.

#### Health Effects

VOCs often have an odor, including such common VOCs as gasoline, alcohol, and the solvents used in paints. Odors generated by VOCs can irritate the eye, nose, and throat, which can reduce respiratory volume. In addition, studies have shown that the VOCs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system.

- **Lead (Pb)** is a heavy metal that is highly persistent in the environment. Historically, the primary source of lead in the air was emissions from vehicles burning leaded gasoline. Currently, emissions of lead are largely limited to stationary sources such as lead smelters.

#### Health Effects

Exposure to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are associated with increased blood pressure. Lead poisoning can cause anemia, lethargy, seizures, and death. Fetuses, infants, and children are more sensitive than others to the adverse effects of lead exposure. (Urban Crossroads, 2022a, pp. 11-17)

As discussed in EIR Subsection 2.2, OEHHA's California Communities Environmental Health Screening Tool: CalEnviroScreen 4.0, is a screening methodology that the State of California uses to identify California communities that are disproportionately burdened by multiple sources of pollution. The CalEnviroScreen 4.0 indicators for the Project Site's Census Tract are in Table 2-1 and report that for the Project Site's Census Tract (Census Tract 6071012700) the highest environmental exposures from air pollution (over 75%) are from O<sub>3</sub>, PM<sub>2.5</sub>, and diesel particulate matter (DPM).

#### ***D. Existing Air Quality***

Air quality is evaluated in the context of ambient air quality standards published by the federal and State governments. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. The National Ambient Air Quality





Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect are detailed in Table 4.2-1, *Ambient Air Quality Standards*.

**Table 4.2-1 Ambient Air Quality Standards (1 of 2)**

Pollutant	Averaging Time	California Standards <sup>1</sup>		National Standards <sup>2</sup>		
		Concentration <sup>3</sup>	Method <sup>4</sup>	Primary <sup>3,5</sup>	Secondary <sup>3,6</sup>	Method <sup>7</sup>
Ozone (O <sub>3</sub> ) <sup>8</sup>	1 Hour	0.09 ppm (180 µg/m <sup>3</sup> )	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m <sup>3</sup> )		0.070 ppm (137 µg/m <sup>3</sup> )		
Respirable Particulate Matter (PM <sub>10</sub> ) <sup>9</sup>	24 Hour	50 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	150 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>		—		
Fine Particulate Matter (PM <sub>2.5</sub> ) <sup>9</sup>	24 Hour	—	—	35 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	12.0 µg/m <sup>3</sup>		
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m <sup>3</sup> )	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m <sup>3</sup> )	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m <sup>3</sup> )		9 ppm (10 mg/m <sup>3</sup> )	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m <sup>3</sup> )		—	—	
Nitrogen Dioxide (NO <sub>2</sub> ) <sup>10</sup>	1 Hour	0.18 ppm (339 µg/m <sup>3</sup> )	Gas Phase Chemiluminescence	100 ppb (188 µg/m <sup>3</sup> )	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m <sup>3</sup> )		0.053 ppm (100 µg/m <sup>3</sup> )	Same as Primary Standard	
Sulfur Dioxide (SO <sub>2</sub> ) <sup>11</sup>	1 Hour	0.25 ppm (655 µg/m <sup>3</sup> )	Ultraviolet Fluorescence	75 ppb (196 µg/m <sup>3</sup> )	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m <sup>3</sup> )	
	24 Hour	0.04 ppm (105 µg/m <sup>3</sup> )		0.14 ppm (for certain areas) <sup>10</sup>	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) <sup>10</sup>	—	
Lead <sup>12,13</sup>	30 Day Average	1.5 µg/m <sup>3</sup>	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m <sup>3</sup> (for certain areas) <sup>12</sup>	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m <sup>3</sup>		
Visibility Reducing Particles <sup>14</sup>	8 Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m <sup>3</sup>	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m <sup>3</sup> )	Ultraviolet Fluorescence			
Vinyl Chloride <sup>12</sup>	24 Hour	0.01 ppm (26 µg/m <sup>3</sup> )	Gas Chromatography			

Source: (Urban Crossroads, 2022a, Table 2-2)



**Table 4.2-1 Ambient Air Quality Standards (2 of 2)**

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM<sub>10</sub>, PM<sub>2.5</sub>, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM<sub>10</sub>, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m<sup>3</sup> is equal to or less than one. For PM<sub>2.5</sub>, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM<sub>2.5</sub> primary standard was lowered from 15 µg/m<sup>3</sup> to 12.0 µg/m<sup>3</sup>. The existing national 24-hour PM<sub>2.5</sub> standards (primary and secondary) were retained at 35 µg/m<sup>3</sup>, as was the annual secondary standard of 15 µg/m<sup>3</sup>. The existing 24-hour PM<sub>10</sub> standards (primary and secondary) of 150 µg/m<sup>3</sup> also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
11. On June 2, 2010, a new 1-hour SO<sub>2</sub> standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO<sub>2</sub> national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.  
  
Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m<sup>3</sup> as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Source: (Urban Crossroads, 2022a, Table 2-2)



1. *Regional Air Quality*

☐ **Criteria Pollutants**

The SCAQMD monitors levels of various criteria pollutants at 37 permanent monitoring stations and 5 single-pollutant source Pb air monitoring sites throughout the Air Basin. The attainment status for criteria pollutants within the SCAB is summarized in Table 4.2-2, *Attainment Status of Criteria Pollutants in the SCAB*.

**Table 4.2-2 Attainment Status of Criteria Pollutants in the SCAB**

Criteria Pollutant	State Designation	Federal Designation
O <sub>3</sub> – 1-hour standard	Nonattainment	--
O <sub>3</sub> – 8-hour standard	Nonattainment	Nonattainment
PM <sub>10</sub>	Nonattainment	Attainment
PM <sub>2.5</sub>	Nonattainment	Nonattainment
CO	Attainment	Unclassifiable/Attainment
NO <sub>2</sub>	Attainment	Unclassifiable/Attainment
SO <sub>2</sub>	Unclassifiable/Attainment	Unclassifiable/Attainment
Pb <sup>1</sup>	Attainment	Unclassifiable/Attainment

Note: See Appendix 2.1 for a detailed map of State/National Area Designations within the SCAB

-- = The national 1-hour O<sub>3</sub> standard was revoked effective June 15, 2005.

<sup>1</sup> The Federal nonattainment designation for lead is only applicable towards the Los Angeles County portion of the SCAB.

Source: (Urban Crossroads, 2022a, Table 2-3)

2. *Local Air Quality*

☐ **Criteria Pollutants**

The SCAQMD has designated general forecast areas and air monitoring areas (referred to as Source Receptor Areas (SRA) throughout the district in order to provide Southern California residents information about air quality conditions. The Project Site is located within SRA 33. Within SRA 33, the Interstate 10 (I-10) Near Road and California State Route (CA-60) Near Road monitoring stations are located approximately 0.6 miles northeast and 5.3 miles southwest of the Project Site, respectively. These stations report air quality statistics for CO, NO<sub>2</sub>, and PM<sub>2.5</sub>; these monitoring station do not provide data for O<sub>3</sub> or PM<sub>10</sub>. As such, the next nearest monitoring station is utilized for reporting purposes herein. Data for O<sub>3</sub> or PM<sub>10</sub> was obtained from the Central San Bernardino Valley 1 monitoring station, located in SRA 34, approximately 3.5 miles northeast of the Project Site. Data from Central San Bernardino Valley 1 monitoring station were utilized in lieu of the I-10 Near Road and CA-60 Near Road monitoring stations only in instances where data was not available from those stations within SRA 33. (Urban Crossroads, 2022a, p. 21)



Ambient air pollutant concentrations in the Project area are summarized in Table 4.2-3, *Project Area Air Quality Monitoring Summary*. Data was collected for the three most recent years for which data was available (2018-2020).

**Table 4.2-3 Project Area Air Quality Monitoring Summary**

Pollutant	Standard	Year		
		2018	2019	2020
<b>O<sub>3</sub></b>				
Maximum Federal 1-Hour Concentration (ppm)		0.141	0.124	0.151
Maximum Federal 8-Hour Concentration (ppm)		0.111	0.109	0.111
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	38	41	56
Number of Days Exceeding State/Federal 8-Hour Standard	> 0.070 ppm	69	67	89
<b>CO</b>				
Maximum Federal 1-Hour Concentration	> 35 ppm	1.6	1.5	1.5
Maximum Federal 8-Hour Concentration	> 20 ppm	1.3	1.1	1.2
<b>NO<sub>2</sub></b>				
Maximum Federal 1-Hour Concentration	> 0.100 ppm	0.088	0.086	0.094
Annual Federal Standard Design Value		0.027	0.028	0.029
<b>PM<sub>10</sub></b>				
Maximum Federal 24-Hour Concentration (µg/m <sup>3</sup> )	> 150 µg/m <sup>3</sup>	64	88	61
Annual Federal Arithmetic Mean (µg/m <sup>3</sup> )		34.1	34.8	35.8
Number of Days Exceeding Federal 24-Hour Standard	> 150 µg/m <sup>3</sup>	0	0	0
Number of Days Exceeding State 24-Hour Standard	> 50 µg/m <sup>3</sup>	9	12	6
<b>PM<sub>2.5</sub></b>				
Maximum Federal 24-Hour Concentration (µg/m <sup>3</sup> )	> 35 µg/m <sup>3</sup>	47.90	41.30	53.10
Annual Federal Arithmetic Mean (µg/m <sup>3</sup> )	> 12 µg/m <sup>3</sup>	14.31	12.70	14.36
Number of Days Exceeding Federal 24-Hour Standard	> 35 µg/m <sup>3</sup>	5	5	4

ppm = Parts Per Million

µg/m<sup>3</sup> = Microgram per Cubic Meter

Source: Data for O<sub>3</sub>, CO, NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> was obtained from SCAQMD Air Quality Data Tables.

Source: (Urban Crossroads, 2022a, Table 2-4)

**E. Regional Air Quality Improvement**

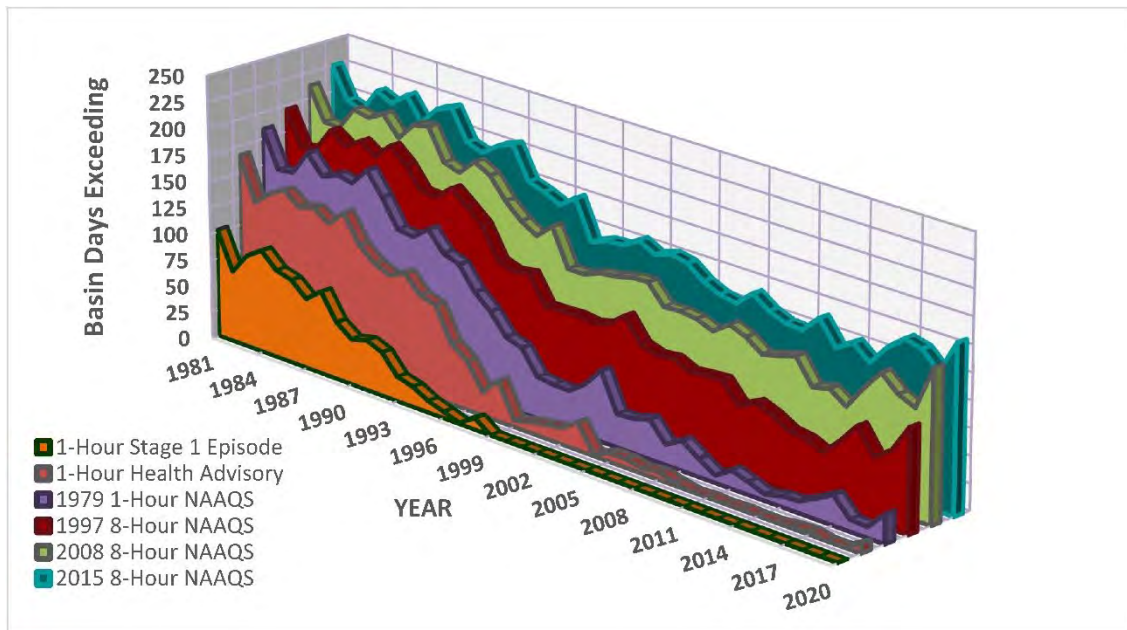
The Project site is within the jurisdiction of the SCAQMD. SCAQMD develops comprehensive plans and regulatory programs for the region to attain federal standards by dates specified in federal law. The agency is also responsible for meeting State standards by the earliest date achievable, using reasonably available control measures. SCAQMD rule development through the 1970s and 1980s resulted in dramatic improvement in SCAB air quality. Nearly all control programs developed through the early 1990s relied on (i) the development and application of cleaner technology; (ii) add-on emission



controls, and (iii) uniform California Environmental Quality Act (CEQA) review throughout the SCAB. Industrial emission sources have been significantly reduced by this approach and vehicular emissions have been reduced by technologies implemented at the State level by CARB.

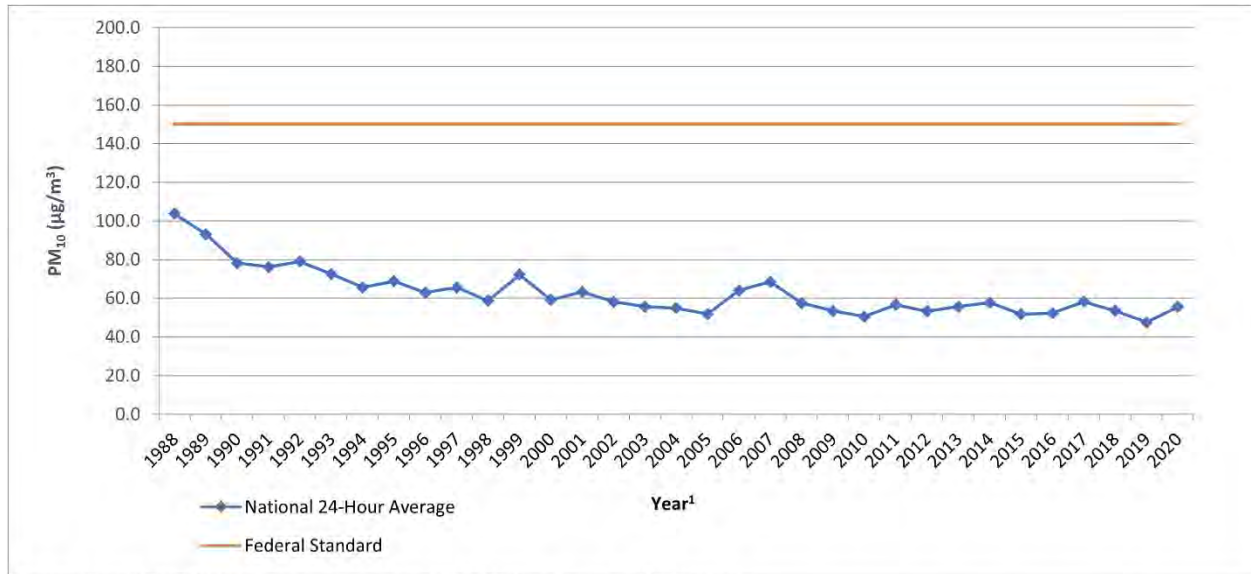
Emissions of O<sub>3</sub>, NO<sub>x</sub>, PM, VOC, and CO have been decreasing in the SCAB since 1975 and are projected to continue to decrease beyond 2020 as shown in the images below produced by CARB and the SCAQMD.

SCAB O<sub>3</sub> Trend





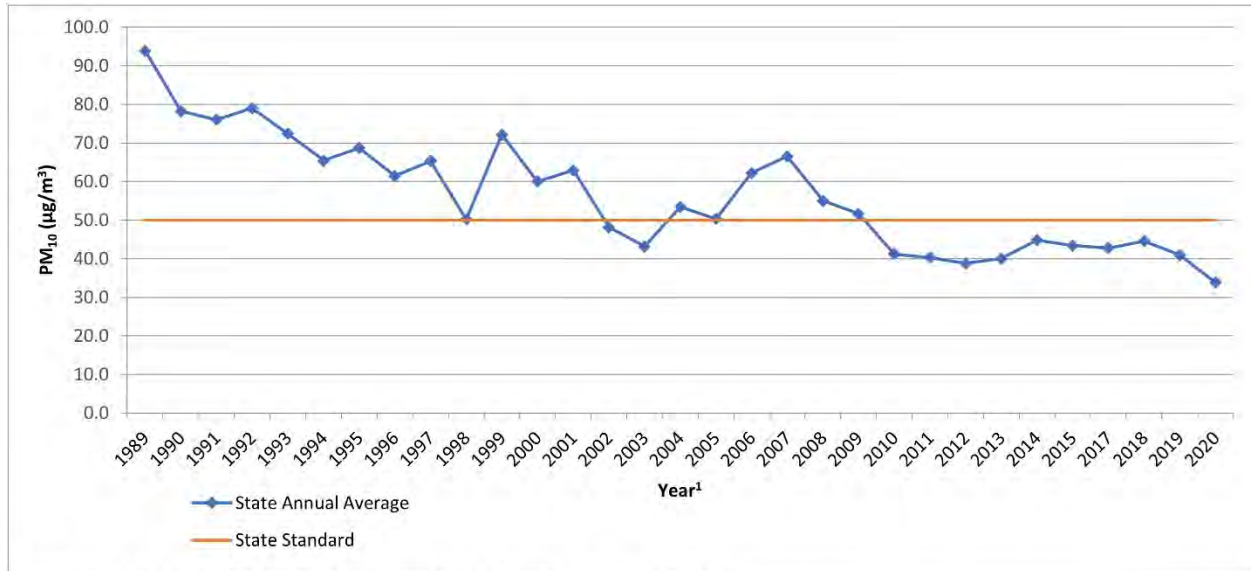
**SCAB Average 24-Hour Concentration PM<sub>10</sub> Trend (Based on Federal Standard)**



Source: 2020 CARB, iADAM: Top Four Summary: PM<sub>10</sub> 24-Hour Averages (1988-2020)

<sup>1</sup> Some years have been omitted from the table as insufficient data (or no) data has been reported. Years with reported value of "0" have also been omitted.

**SCAB Annual Average Concentration PM<sub>10</sub> Trend (Based on State Standard)**

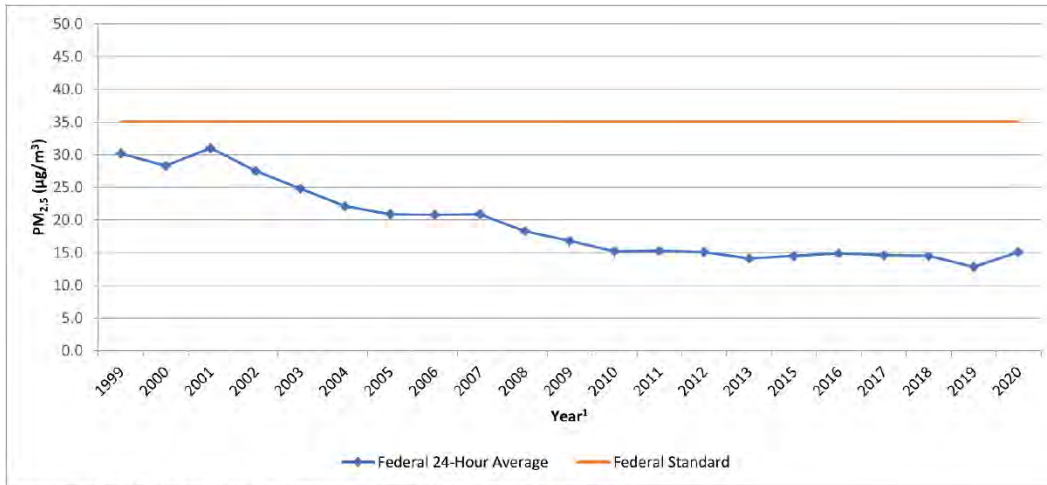


Source: 2020 CARB, iADAM: Top Four Summary: PM<sub>10</sub> 24-Hour Averages (1988-2020)

<sup>1</sup> Some years have been omitted from the table as insufficient data (or no) data has been reported. Years with reported value of "0" have also been omitted.



### SCAB 24-Hour Average Concentration PM<sub>2.5</sub> Trend (Based on Federal Standard)



Source: 2020 CARB, iADAM: Top Four Summary: PM<sub>2.5</sub> 24-Hour Averages (1999-2020)

<sup>1</sup> Some years have been omitted from the table as insufficient data (or no) data has been reported. Years with reported value of "0" have also been omitted.

### SCAB 24-Hour Average Concentration PM<sub>2.5</sub> Trend (Based on State Standard)

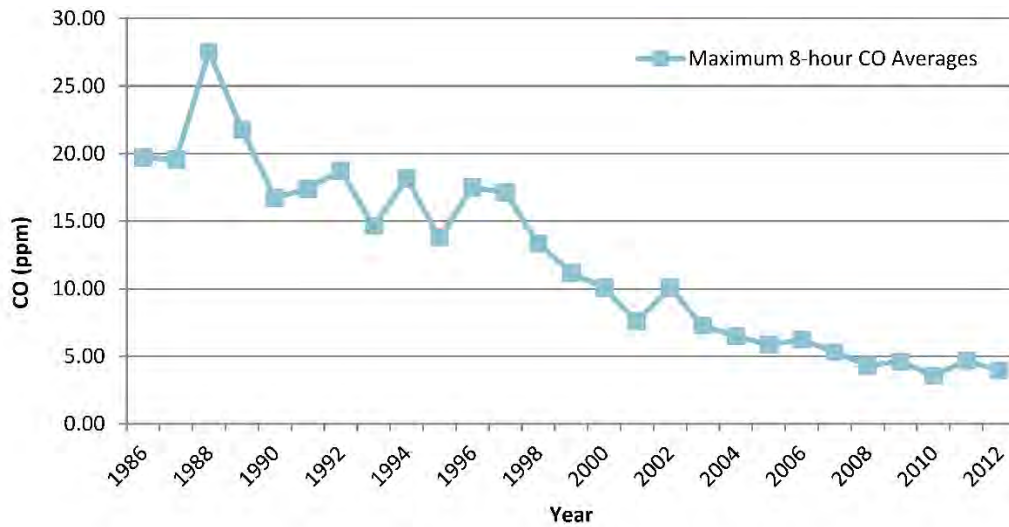


Source: 2020 CARB, iADAM: Top Four Summary: PM<sub>2.5</sub> 24-Hour Averages (1999-2020)

<sup>1</sup> Some years have been omitted from the table as insufficient data (or no) data has been reported. Years with reported value of "0" have also been omitted.

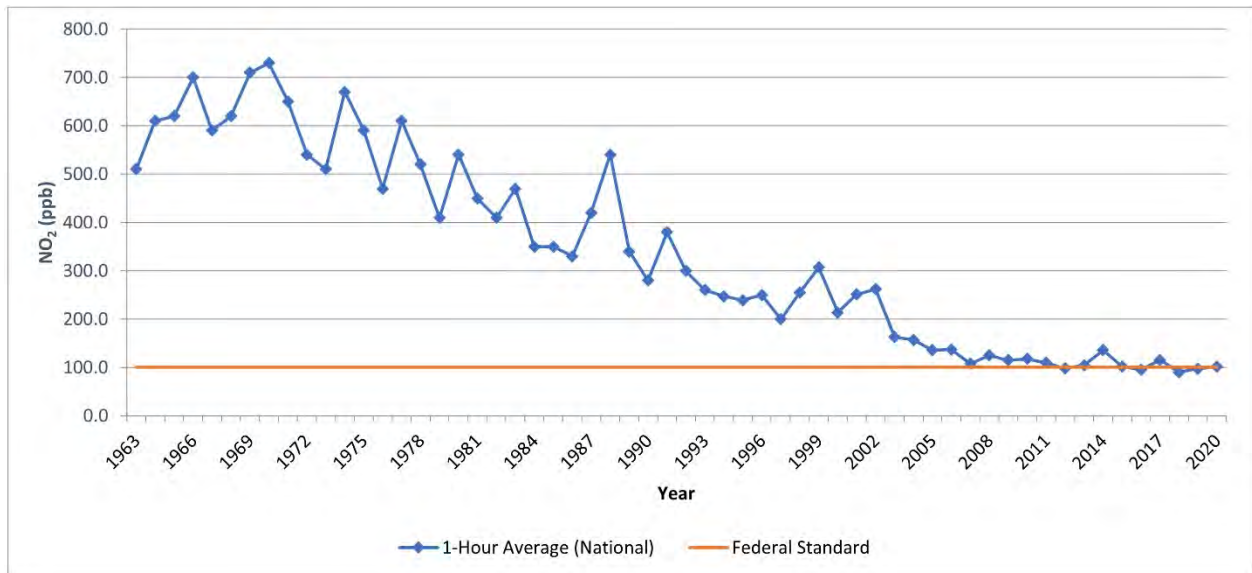


### SCAB 8-Hour Average Concentration CO Trend



Source: 2020 CARB, iADAM: Top Four Summary: CO 8-Hour Averages (1986-2012)  
<sup>1</sup> The most recent year where 8-hour concentration data is available is 2012.

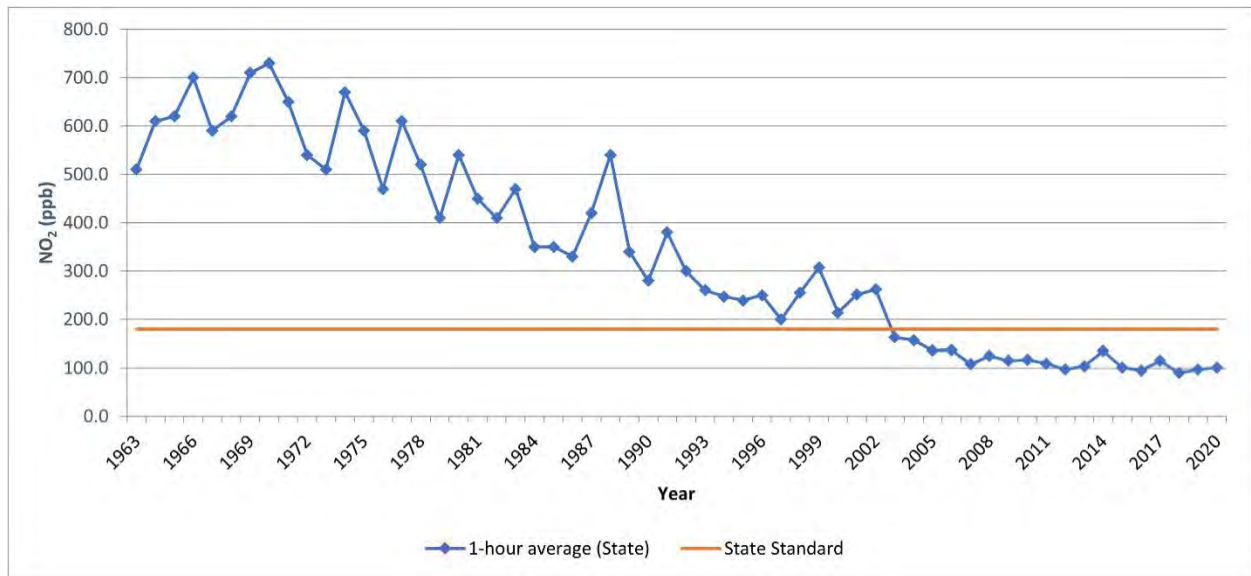
### SCAB 1-Hour Average NO<sub>2</sub> Concentration Trend (Based on Federal Standard)





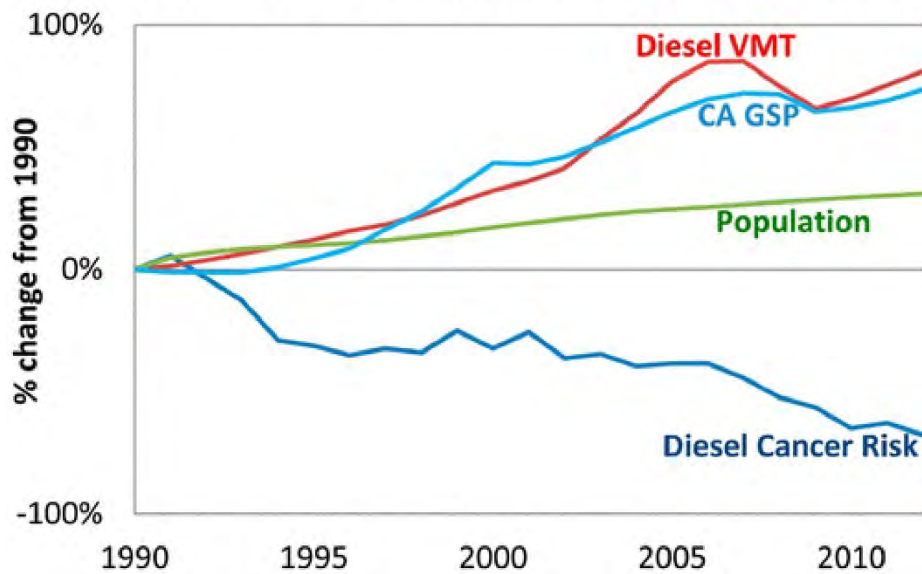


**SCAB 1-Hour Average NO<sub>2</sub> Concentration Trend (Based on State Standard)**



**DPM and Diesel Vehicle Miles Trend**

**California Population, Gross State Product (GSP),  
Diesel Cancer Risk, Diesel Vehicle-Miles-Traveled (VMT)**





### 3. Project Site Air Quality

The Project Site is currently occupied and operating as a grain processing company and a corn storage and distribution facility. The estimated operation-source air pollutant emissions from existing uses on the Project Site are summarized on Table 4.2-4, *Existing Project Site Operation-Source Emissions*. Detailed operation model outputs are presented in Appendix 3.3 of the Project’s AQIA contained as *Technical Appendix B1* to this EIR. (Urban Crossroads, 2022a, p. 28)

**Table 4.2-4 Existing Project Site Operation-Source Emissions**

Source	Emissions (lbs/day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Summer						
Mobile Source	1.03	9.24	15.78	0.08	2.04	0.53
Area Source	1.30	0.02	1.82	0.00	0.00	0.00
Energy Source	0.02	0.43	0.36	0.00	0.03	0.03
<b>Total Maximum Daily Emissions</b>	<b>2.35</b>	<b>9.69</b>	<b>17.96</b>	<b>0.08</b>	<b>2.07</b>	<b>0.56</b>
Winter						
Mobile Source	0.97	9.68	13.68	0.08	2.04	0.53
Area Source	1.00	0.00	0.00	0.00	0.00	0.00
Energy Source	0.02	0.43	0.36	0.00	0.03	0.03
<b>Total Maximum Daily Emissions</b>	<b>1.99</b>	<b>10.11</b>	<b>14.04</b>	<b>0.08</b>	<b>2.07</b>	<b>0.56</b>

Source: (Urban Crossroads, 2022a, Table 3-1)

#### 4.2.2 REGULATORY SETTING

The following is a brief description of the federal, State, and local environmental laws and related regulations governing air quality emissions.

##### A. Federal Plans, Policies, and Regulations

##### 1. Federal Clean Air Act

The Clean Air Act (CAA; 42 U.S.C. § 7401 et seq.) is the comprehensive federal law that regulates air emissions from stationary and mobile sources. Among other things, this law authorizes Environmental Protection Agency (EPA) to establish National Ambient Air Quality Standards (NAAQS) to protect public health and public welfare and to regulate emissions of hazardous air pollutants, which include O<sub>3</sub>, CO, NO<sub>x</sub>, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and Pb. (EPA, 2020a)

One of the goals of the CAA was to set and achieve NAAQS in every state by 1975 in order to address the public health and welfare risks posed by certain widespread air pollutants. The setting of these pollutant standards was coupled with directing the states to develop state implementation plans (SIPs),



applicable to appropriate industrial sources in the state, in order to achieve these standards. The CAA was amended in 1977 and 1990 primarily to set new goals (dates) for achieving attainment of NAAQS since many areas of the country had failed to meet the deadlines. (EPA, 2020a)

The sections of the federal CAA most directly applicable to the development of the Project Site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions). Title I provisions address the urban air pollution problems of O<sub>3</sub> (smog), CO, and PM<sub>10</sub>. Specifically, it clarifies how areas are designated and re-designated "attainment." It also allows EPA to define the boundaries of "nonattainment" areas: geographical areas whose air quality does not meet Federal air quality standards designed to protect public health. (EPA, 2020b) Mobile source emissions are regulated in accordance with the CAA Title II provisions. These standards are intended to reduce tailpipe emissions of hydrocarbons, CO, and NO<sub>x</sub> on a phased-in basis that began in model year 1994. Automobile manufacturers also are required to reduce vehicle emissions resulting from the evaporation of gasoline during refueling. These provisions further require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. (EPA, 2020c)

Section 112 of the Clean Air Act addresses emissions of hazardous air pollutants. Prior to 1990, CAA established a risk-based program under which only a few standards were developed. The 1990 Clean Air Act Amendments revised Section 112 to first require issuance of technology-based standards for major sources and certain area sources. "Major sources" are defined as a stationary source or group of stationary sources that emit or have the potential to emit 10 tons per year or more of a hazardous air pollutant or 25 tons per year or more of a combination of hazardous air pollutants. An "area source" is any stationary source that is not a major source. (EPA, 2020a)

For major sources, Section 112 requires that EPA establish emission standards that require the maximum degree of reduction in emissions of hazardous air pollutants. These emission standards are commonly referred to as "maximum achievable control technology" or "MACT" standards. Eight years after the technology-based MACT standards are issued for a source category, EPA is required to review those standards to determine whether any residual risk exists for that source category and, if necessary, revise the standards to address such risk. (EPA, 2020a)

## 2. *SmartWay Program*

The US EPA's SmartWay Program is a voluntary public-private program developed in 2004, which 1) provides a comprehensive and well-recognized system for tracking, documenting and sharing information about fuel use and freight emissions across supply chains; 2) helps companies identify and select more efficient freight carriers, transport modes, equipment, and operational strategies to improve supply chain sustainability and lower costs from goods movement; 3) supports global energy security and offsets environmental risk for companies and countries; and 4) reduces freight transportation-related emissions by accelerating the use of advanced fuel-saving technologies (EPA, 2021a). This program is supported by major transportation industry associations, environmental groups, State and local governments, international agencies, and the corporate community.



***B. State Plans, Policies, and Regulations***

***1. California Clean Air Act (CCAA)***

The California Clean Air Act (CCAA) establishes numerous requirements for district plans to attain state ambient air quality standards for criteria air contaminants. The CCAA mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the State's ambient air quality standards, the CAAQS, by the earliest practical date. The CARB established the CAAQS for all pollutants for which the federal government has NAAQS and, in addition, established standards for sulfates, visibility, hydrogen sulfide, and vinyl chloride. Generally, the CAAQS are more stringent than the NAAQS. For districts with serious air pollution, its attainment plan should include the following: no net increase in emissions from new and modified stationary sources; and best available retrofit technology for existing sources. (SCAQMD, n.d.)

***2. Air Toxic Hot Spots Act***

The Air Toxic "Hot Spots" Information and Assessment Act of 1987, commonly known as AB 2588, (Health & Safety Code Section 44300, et seq.) requires facilities emitting specified quantities of pollutants to conduct risk assessments describing the health impacts to neighboring communities created by their emissions of numerous specified hazardous compounds. If the district determines the health impact to be significant, neighbors must be notified. In addition, state law requires the facility to develop and implement a plan to reduce the health impacts to below significance, generally within 5 years. Additional control requirements for hazardous emissions from specific industries are established by the state and enforced by districts. (SCAQMD, n.d.)

***3. Air Quality Management Planning***

The CARB and local air districts throughout the State are responsible for developing clean air plans to demonstrate how and when California will attain air quality standards established under both the CAA and CCAA. For the areas within California that have not attained air quality standards, CARB works with local air districts to develop and implement State and local attainment plans. In general, attainment plans contain a discussion of ambient air quality data and trends; a baseline emissions inventory; future year projections of emissions, which account for growth projections and already adopted control measures; a comprehensive control strategy of additional measures needed to reach attainment; an attainment demonstration, which generally involves complex modeling; and contingency measures. Plans may also include interim milestones for progress toward attainment. Air quality planning activities undertaken by CARB also include the development of policies, guidance, and regulations related to State and federal ambient air quality standards; coordination with local agencies on transportation plans and strategies; and providing assistance to local districts and transportation agencies. (CARB, 2012)

***4. Truck & Bus Regulation***

Under the Truck and Bus Regulation, adopted by CARB in 2008, all diesel truck fleets operating in California are required to adhere to an aggressive schedule for upgrading and replacing heavy-duty



truck engines. Older, more polluting trucks are required to be replaced first, while trucks that already have relatively clean engines are not required to be replaced until later. Pursuant to the Truck and Bus Regulation, all pre-1994 heavy trucks (trucks with a gross vehicle weight rating greater than 26,000 pounds) were removed from service on California roads by 2015. Between 2015 and 2020, pre-2000 heavy trucks were equipped with PM filters and upgraded or replaced with an engine that meets 2010 emissions standards. The upgrades/replacements occurred on a rolling basis based on model year. By 2023, all heavy trucks operating on California roads must have engines that meet 2010 emissions standards. Lighter trucks (those with a gross vehicle weight rating of 14,001 to 26,000 pounds) adhered to a similar schedule, and were all replaced by 2020. (CARB, n.d.)

### 5. *Advanced Clean Truck Regulation*

In June, 2020, CARB adopted a new Rule requiring truck manufacturers to transition from diesel trucks and vans to electric zero-emission trucks beginning in 2024. By 2045, every new truck sold in California will be required to be zero-emission. Manufacturers who certify Class 2b-8 chassis or complete vehicles with combustion engines would be required to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. By 2035, zero-emission truck/chassis sales would need to be 55% of Class 2b – 3 truck sales, 75% of Class 4 – 8 straight truck sales, and 40% of truck tractor sales. CARB reports that as of 2020, most commercially-available models of zero-emission vans, trucks and buses operate less than 100 miles per day. Commercial availability of electric-powered long-haul trucks is very limited; however, as technology advances over the next 20 years, zero-emission trucks will become suitable for more applications, and several truck manufacturers have announced plans to introduce market ready zero-emission trucks in the future. (CARB, 2021)

### 6. *California Air Resources Board Rules*

The CARB enforces rules related to air pollutant emissions in the State of California. Rules with applicability to the Project include, but are not limited to, those listed below.

- CARB Rule 2485 (13 CCR 2485): Airborne Toxic Control Measure to Limit Diesel-Fuel Commercial Vehicle Idling, which limits nonessential idling to five minutes or less for commercial trucks.
- CARB Rule 2449 (13 CCR 2449): In-Use Off-Road Diesel Idling Restricts, which limits nonessential idling to five minutes or less for diesel-powered off-road equipment.

### C. *Local Plans, Policies, and Regulations*

#### 1. *SCAQMD Air Quality Management Plan*

Under existing conditions, the NAAQS and CAAQS are exceeded in most parts of the SCAB. In response, and in conformance with California Health & Safety Code Section 40702 *et seq.* and the California CAA, the SCAQMD adopted an AQMP to plan for the improvement of regional air quality. AQMPs are updated regularly in order to more effectively reduce emissions and accommodate growth.



Each version of the plan is an update of the previous plan and has a 20-year horizon with a revised baseline. The SCAQMD's most recent iteration of the AQMP was adopted in March 2017 (SCAQMD, 2017a). The 2022 AQMP is currently being developed by SCAQMD to address the EPA's strengthened ozone standard. Development of the 2022 AQMP is in its early stages and no formal timeline for completion and adoption is currently known.

## 2. SCAQMD Rules

The SCAQMD enforces rules related to air pollutant emissions in the SCAB. Rules with applicability to the Project include, but are not limited to, those listed below.

- SCAQMD Rule 402 (Nuisance Odors): Prohibits the discharge of air contaminants that cause nuisance or annoyance to any considerable number of persons or to the public
- SCAQMD Rule 403 (Fugitive Dust): Requires the implementation of best available dust control measures (BACMs) during activities capable of generating fugitive dust. Rule 403 also requires activities defined as "large operations" to notify the SCAQMD by submitting specific forms; a large operation is defined as any active operation on property containing 50 or more acres of disturbed surface area; or any earth moving operation with a daily earth-moving or throughput volume of 3,850 cubic meters (5,000 cubic yards), three times during the most recent 365-day period.
- SCAQMD Rule 431.2 (Low Sulfur Fuel): Requires the use of diesel fuels that adhere to sulfur content limits.
- SCAQMD Rule 1108 (Cutback Asphalt): Prohibits the use of asphalt that exceeds a specified percentage of VOCs.
- SCAQMD Rule 1113 (Architectural Coatings): Requires all buildings within the SCAQMD to adhere to the VOC limits for architectural coatings.
- SCAQMD Rule 1186 (PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations): Requires the use of street sweepers that meet minimum standards for cleaning capabilities.
- SCAQMD Rule 1301 (General): Provides pre-construction review requirements to ensure that new or relocated facilities do not interfere with progress in attainment of the NAAQS. Rule 1301 also limits emission increase of ammonia and ozone depleting compounds from new, modified, or relocated facilities by requiring the use of Best Available Control Technology (BACT).
- SCAQMD Rule 1401 (New Source Review of Toxic Air Contaminants): Prohibits a person from discharging into the atmosphere from any single source of emission whatsoever any



air contaminant for a period or periods aggregating more than three minutes in any 1 hour that is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines.

- SCAQMD Rule 2305 (Warehouse Indirect Source Rule): Requires all operators of warehouses greater than or equal to 100,000 s.f. of indoor floor space to implement measures that reduce nitrogen oxides and particulate matter emissions and/or pay a fee to fund programs to improve regional air quality.

#### **4.2.2 METHODOLOGY FOR CALCULATING PROJECT-RELATED AIR QUALITY IMPACTS**

The California Emissions Estimator Model (CalEEMod), version 2022.1, was used to calculate all Project-related air pollutant emissions (with the exception of localized emissions and diesel particulate matter emissions from Project operations, refer to Subsection 4.2.3B, below). The CalEEMod is a Statewide land use emission computer model developed for the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the California Air Districts, including the SCAQMD, that provides a uniform platform to quantify potential criteria pollutant emissions associated with construction and operation of land development projects.

##### ***A. Project Construction Emissions***

The Project's construction period will last approximately 12 months and will include 6 activity phases: 1) demolition/crushing; 2) site preparation; 3) grading; 4) building construction; 5) paving; and 6) architectural coating/landscaping. For purposes of the air quality analysis, the Project's construction activities are assumed to occur between May 2023 and April 2024. This assumption represents a conservative analysis scenario because, should construction occur later than the dates assumed in the analysis, construction equipment emissions would be the same or more likely lower than presented because emission regulations are becoming more stringent over time and the retirement of older (higher-polluting) equipment and replacement with newer (less-polluting) pieces of equipment is constantly happening in response to State regulations or service needs. The air quality analysis model utilizes the durations of each construction activity phase and the construction equipment fleet previously presented in EIR Section 3.0, *Project Description*. The analysis assumptions for Project construction are based on information provided by the Project Applicant and the experience and technical expertise of the Project's air quality technical expert (Urban Crossroads).

Refer to Section 4.4 of the Project's AQIA for more detail on the methodology utilized to calculate the Project's construction-related regional pollutant emissions.

##### ***B. Project Operational Emissions***

The Project's operational-related regional pollutant emissions analysis quantifies air pollutant emissions from area source emissions, energy source emissions, mobile source emissions, transportation refrigeration units (TRU) emissions, on-site cargo handling equipment emissions, and stationary source emissions. (Urban Crossroads, 2022a, p. 35)



### 1. *Area Source Emissions*

Area source emissions associated with the Project would occur as a result of architectural coatings, consumer products, and landscape maintenance equipment, as follows:

#### **Architectural Coatings**

Over a period of time the building that is part of this Project would require maintenance and would therefore produce emissions resulting from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings. The emissions associated with architectural coatings were calculated using CalEEMod. (Urban Crossroads, 2022a, p. 35)

#### **Consumer Products**

Consumer products include, but are not limited to detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. Many of these products contain organic compounds which when released in the atmosphere can react to form ozone and other photochemically reactive pollutants. The emissions associated with use of consumer products were calculated based on defaults provided within CalEEMod. (Urban Crossroads, 2022a, p. 35)

#### **Landscape Maintenance Equipment**

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. On October 9, 2021, the Governor signed AB 1346 to ban the sale of new gasoline-powered equipment under 25 gross horsepower (known as small off-road engines (SOREs)) by 2024. For purposes of analysis, the emissions associated with landscape maintenance equipment were calculated based on assumptions provided in CalEEMod. (Urban Crossroads, 2022a, p. 36)

### 2. *Energy Source Emissions*

Electricity and natural gas are used by almost every project. Criteria pollutant emissions are emitted through the generation of electricity and consumption of natural gas. However, because electrical generating facilities for the Project area are located either outside the region (state) or offset through the use of pollution credits) for generation within the SCAB, criteria pollutant emissions from offsite generation of electricity are generally excluded from the evaluation of significance and only natural gas use is considered. The emissions associated with natural gas use were calculated using CalEEMod. (Urban Crossroads, 2022a, p. 36)

### 3. *Mobile Source Emissions*

Project operational vehicular impacts derive primarily from vehicle trips generated by the Project, including employee trips to and from the Site and truck trips associated with the proposed uses. It should be noted that CalEEMod has different trip rates for different days of the week. In order to accurately determine mobile-source emission from vehicle activity generated by the proposed Project, the CalEEMod default trip rates were adjusted for weekday, Saturday, and Sunday utilizing the trip





rates based on trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021). (Urban Crossroads, 2022a, p. 36)

In order to determine emissions from passenger car vehicles, CalEEMod defaults for trip length and trip purpose were utilized. Default vehicle trip lengths for primary trips will be populated using data from the local metropolitan planning organizations/Regional Transportation Planning Agencies (MPO/RTPA). Trip type percentages and trip lengths provided by MPO/RTPAs truncate data at their demonstrative borders. This analysis assumes that passenger cars include Light-Duty-Auto vehicles (LDA), Light-Duty-Trucks (LDT1<sup>1</sup> & LDT2<sup>2</sup>), Medium-Duty-Vehicles (MDV), and Motorcycles (MCY) vehicle types. (Urban Crossroads, 2022a, p. 37)

To determine emissions from trucks trip generation associated with the proposed Project, the analysis incorporated the SCAQMD recommended truck trip length of 15.3 miles for 2-axle (LHDT1, LHDT2), 14.2 miles for 3-axle (MHDT) trucks, and 40 miles for 4+-axle (HHDT) trucks and weighting the average trip lengths using traffic trip percentages. The trip length function for the general light industrial use has been revised to 30.58 miles and 28.62 miles for the high-cube cold storage and warehouse uses, respectively, an assumption of 100% primary trips for the proposed Project. Trucks are broken down by truck type. The truck fleet mix is estimated by rationing the trip rates for each truck type based on information provided by the SCAQMD recommended truck mix, by axle type. Heavy trucks are broken down by truck type (or axle type) and are categorized as either Light-Heavy-Duty Trucks (LHDT1<sup>3</sup> & LHDT2<sup>4</sup>)/2-axle, Medium-Heavy-Duty Trucks (MHDT)/3-axle, and Heavy-Heavy-Duty Trucks (HHDT)/4+-axle. (Urban Crossroads, 2022a, p. 37)

Vehicles traveling on paved roads would be a source of fugitive emissions due to the generation of road dust inclusive of break and tire wear particulates. The emissions estimate for travel on paved roads were calculated using CalEEMod. (Urban Crossroads, 2022a, p. 38)

#### 4. TRU Source Emissions

In order to account for the possibility of refrigerated uses, trucks associated with the cold-storage land use are assumed to also have TRUs. Therefore, for modeling purposes, 11 trucks (22 truck trips per day) have the potential to include TRUs. TRUs are accounted for during on-site and off-site travel. The TRU calculations are based on Emissions FACTor Model version 2021 (EMFAC2021), developed by the CARB. EMFAC2021 does not provide emission rates per hour or mile as with the on-road emission model and only provides emission inventories. Emission results are produced in tons per day while all activity, fuel consumption and horsepower hours were reported at annual levels. The emission inventory is based on specific assumptions including the average horsepower rating of specific types of equipment and the hours of operation annually. These assumptions are not always consistent with

<sup>1</sup> Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.

<sup>2</sup> Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.

<sup>3</sup> Vehicles under the LHDT1 category have a GVWR of 8,501 to 10,000 lbs.

<sup>4</sup> Vehicles under the LHDT2 category have a GVWR of 10,001 to 14,000 lbs.



assumptions used in the modeling of project level emissions. Therefore, the emissions inventory was converted into emission rates to accurately calculate emissions from TRU operation associated with project level details. This was accomplished by converting the annual horsepower hours to daily operational characteristics and converting the daily emission levels into hourly emission rates based on the total emission of each criteria pollutant by equipment type and the average daily hours of operation. (Urban Crossroads, 2022a, p. 38)

### 5. *On-site Cargo Handling Equipment Source Emissions*

It is common for warehouse buildings to require the operation of exterior cargo handling equipment in the building's truck court areas. For this Project, on-site modeled operational equipment includes 1 175-horsepower (hp), natural gas-powered cargo handling equipment – port tractor operating 4 hours a day<sup>5</sup> for 365 days of the year. (Urban Crossroads, 2022a, p. 38)

#### ***C. Localized Pollutant Emissions***

Localized emissions associated with Project-related construction and operational activities were calculated and evaluated in accordance with SCAQMD's Final Localized Significance Threshold Methodology ("Methodology"). The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the NAAQS and CAAQS. Collectively, these are referred to as Localized Significance Thresholds (LSTs).

For this Project, the appropriate SRA for the LST analysis is the SCAQMD I-10 Near Road (SRA 33). LSTs apply to CO, NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. The SCAQMD produced look-up tables for projects less than or equal to 5 acres in size. In order to determine the appropriate methodology for determining localized impacts that could occur as a result of Project-related construction, the following process is undertaken:

- Identify the maximum daily on-site emissions that would occur during construction activity:
  - The maximum daily on-site emissions could be based on information provided by the Project Applicant; or
  - The SCAQMD's *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds* and CalEEMod User's Guide *Appendix A: Calculation Details for CalEEMod* can be used to determine the maximum site acreage that is actively disturbed based on the construction equipment fleet and equipment hours as estimated in CalEEMod.

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<sup>5</sup> Based on Table II-3, Port and Rail Cargo Handling Equipment Demographics by Type, from CARB's Technology Assessment: Mobile Cargo Handling Equipment document, a single piece of equipment could operate up to 2 hours per day (Total Average Annual Activity divided by Total Number Pieces of Equipment). As such, the analysis conservatively assumes that the tractor/loader/backhoe would operate up to 4 hours per day.

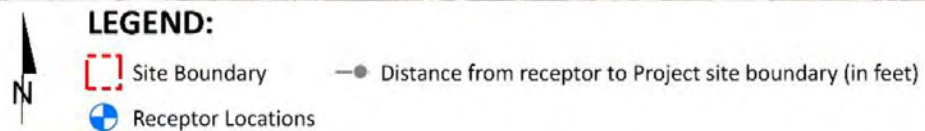
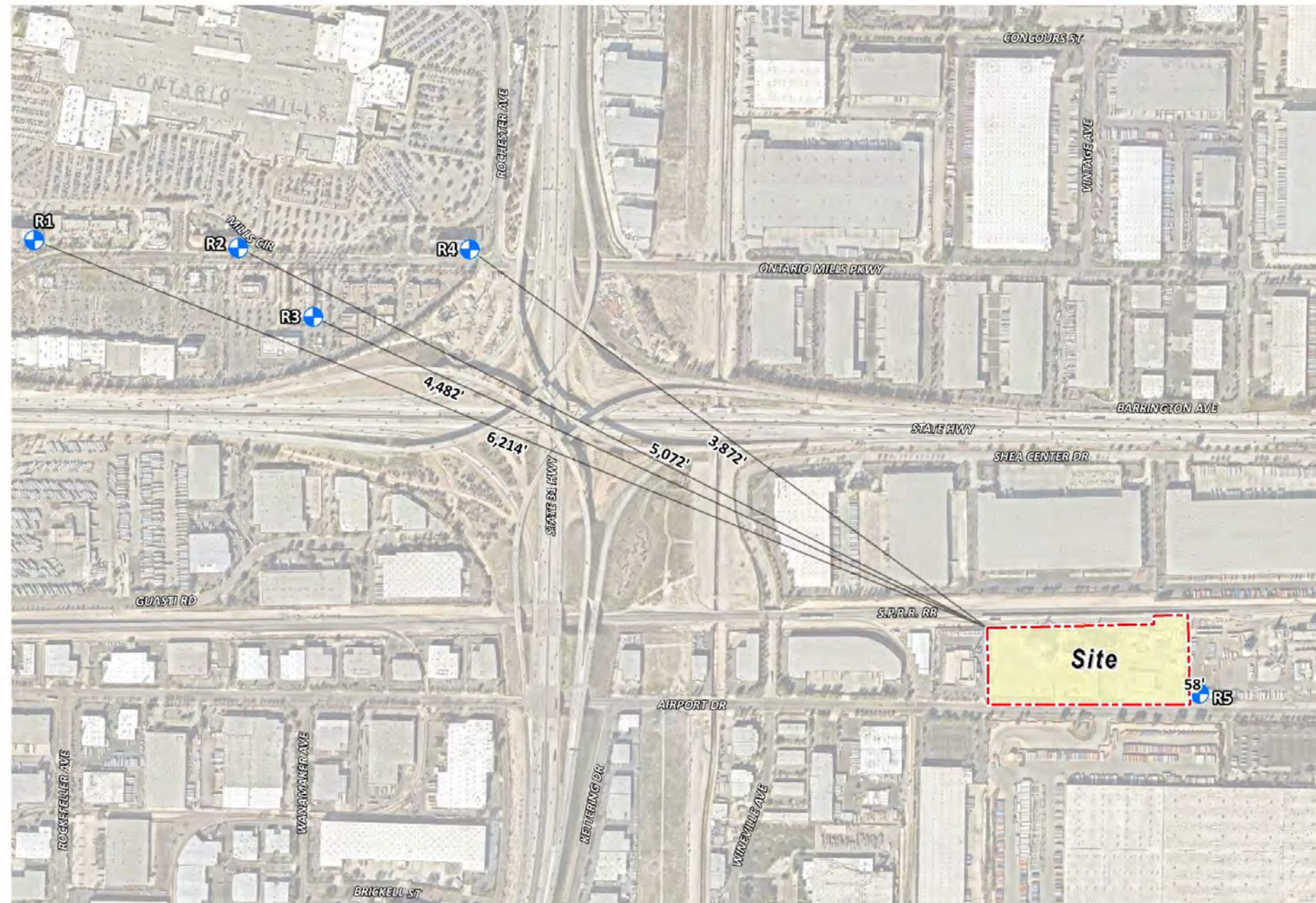


- If the total acreage disturbed is less than or equal to 5 acres per day, then the SCAQMD's screening look-up tables are utilized to determine if a Project has the potential to result in a significant impact. The look-up tables establish a maximum daily emissions threshold in lbs/day that can be compared to CalEEMod outputs.
- If the total acreage disturbed is greater than 5 acres per day, then LST impacts may still be conservatively evaluated using the LST look-up tables for a 5-acre disturbance area. Use of the 5-acre disturbance area thresholds can be used to show that even if the daily emissions from all construction activity were emitted within a 5-acre area, and therefore concentrated over a smaller area which would result in greater site adjacent concentrations, the impacts would still be less than significant if the applicable 5-acre thresholds are utilized.
- The *LST Methodology* presents mass emission rates for each SRA, project sizes of 1, 2, and 5 acres, and nearest receptor distances of 25, 50, 100, 200, and 500 meters. For project sizes between the values given, or with receptors at distances between the given receptors, the methodology uses linear interpolation to determine the thresholds. (Urban Crossroads, 2022a, pp. 40-41)

Based on SCAQMD's LST Methodology, emissions for concern during construction activities are on-site NO<sub>x</sub>, CO, PM<sub>2.5</sub>, and PM<sub>10</sub>. The LST Methodology clearly states that "off-site mobile emissions from the Project should not be included in the emissions compared to LSTs. As such, for purposes of the construction LST analysis, only emissions included in the CalEEMod "on-site" emissions outputs were considered. Detailed information about application of this methodology can be found in Section 4.6 of the Project's AQIA.

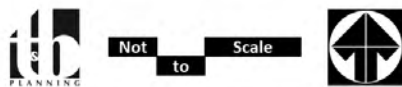
#### 1. *Project-Related Sensitive Receptors Relative to Construction and Operational Activities*

Some people are especially sensitive to air pollution and are given special consideration when evaluating air quality impacts from projects. These groups of people include children, the elderly and individuals with pre-existing respiratory or cardiovascular illness. Structures that house these persons or places where they gather are defined as "sensitive receptors. These structures typically include uses such as residences, schools, and hospitals or other health care facilities where an individual can remain for 24 hours. Although hotel uses are generally not considered sensitive receptors since occupants are transient and temporary, for the purpose of a conservative analysis, hotels are considered sensitive receptors in the analyses for this Project. Sensitive receptors in the Project study area and the nearest worker receptor relative to construction and operational activities are described below and shown on Figure 4.2-1, *Sensitive Receptor Locations*. Localized air quality impacts were evaluated at receptor land uses nearest the Project Site. All distances are measured from the Project Site boundary to the outdoor living areas (e.g., backyards) or at the building façade, whichever is closer to the Project Site. (Urban Crossroads, 2022a, p. 42)



Source(s): Urban Crossroads (08-23-2022)

Figure 4.2-1



Lead Agency: City of Ontario

**Sensitive Receptor Locations**

SCH No. 2022090006



- R1: Location R1 represents the Ayres Hotel Ontario Mills Mall at 4395 Ontario Mills Parkway, approximately 6,214 feet northwest of the Project Site. Since there are no private outdoor living areas (backyards) facing the Project Site, receptor R1 is placed at the building façade.
- R2: Location R2 represents the Hampton Inn & Suites Ontario at 4500 Ontario Mills Parkway, approximately 5,072 feet northwest of the Project Site. Since there are no private outdoor living areas (backyards) facing the Project Site, receptor R2 is placed at the building façade.
- R3: Location R3 represents the Country Inn & Suites by Radisson, Ontario at Ontario Mills at 4674 Ontario Mills Parkway, approximately 4,482 feet northwest of the Project Site. Since there are no private outdoor living areas (backyards) facing the Project Site, receptor R3 is placed at the building façade.
- R4: Location R4 represents the Hyatt Place Ontario/Rancho Cucamonga at 4760 Mills Circle, approximately 3,872 feet northwest of the Project Site. Since there are no private outdoor living areas (backyards) facing the Project Site, receptor R4 is placed at the building façade.
- R5: Location R5 represents the nearest off-site worker location, which is at the Linde Industrial Gas Supplier facility at 5735 East Airport Drive, approximately 58 feet east of the Project Site. (Urban Crossroads, 2022a, p. 43)

***D. Heath Risk Assessment Methodology***

The Health Risk Assessment (HRA) was prepared based on SCAQMD guidelines to produce conservative estimates of human health risk posed by exposure to DPM. Emissions calculations for the construction HRA component are based on an assumed mix of construction equipment and hauling activity as presented in the Project's AQIA. Vehicle DPM emissions were calculated using emission factors for particulate matter less than 10µm in diameter (PM10) generated with the 2021 version of the EMFAC model developed by the CARB. Emission factors calculated using EMFAC 2021 are expressed in units of grams per vehicle miles traveled (g/VMT) or grams per idle-hour (g/idle-hr), depending on the emission process. For the proposed Project, annual average PM<sub>10</sub> emission factors were generated by running EMFAC 2021 in EMFAC Mode for vehicles in the San Bernardino County jurisdiction. The EMFAC Mode generates emission factors in terms of grams of pollutant emitted per vehicle activity and can calculate a matrix of emission factors at specific values of temperature, relative humidity, and vehicle speed. The model was run for speeds traveled in the vicinity of the Project. (Urban Crossroads, 2022b)

The potential health risks of Project-related DPM emissions were quantified in accordance with the guidelines in the SCAQMD's *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*. For purposes of this analysis,



the Lakes AERMOD View (Version 10.2.1) was used to calculate annual average particulate concentrations associated with site operations. Refer to Section 2 of the Project's HRA (*Technical Appendix B2*) for a detailed description of HRA methodologies and for the model inputs and equations used in the estimation of the Project-related DPM emissions.

The modeling domain is limited to the Project's primary truck route and includes off-site sources in the study area for more than  $\frac{3}{4}$  mile. This modeling domain is more inclusive and conservative than using only a  $\frac{1}{4}$  mile modeling domain which is the distance supported by several reputable studies which conclude that the greatest potential risks occur within a  $\frac{1}{4}$  mile of the primary source of emissions (in the case of the Project, the primary source of emissions is the on-site idling and travel). (Urban Crossroads, 2022b)

### 4.2.3 BASIS FOR DETERMINING SIGNIFICANCE

According to Section III of Appendix G to the CEQA Guidelines, the proposed Project would result in a significant impact to air quality if the Project or any Project-related component would (OPR, 2019):

- a. *Conflict with or obstruct implementation of the applicable air quality plan;*
- b. *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard;*
- c. *Expose sensitive receptors to substantial pollutant concentrations;*
- d. *Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

The Project would result in a significant impact under Threshold "a" if the Project were determined to conflict with the SCAQMD 2016 AQMP. Pursuant to Chapter 12, Sections 12.2 and 12.3, of the SCAQMD CEQA Air Quality Handbook, a project would conflict with the AQMP if either of the following conditions were to occur:

- The Project would increase the frequency or severity of existing NAAQS and/or CAAQS violations, cause or contribute to new air quality violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP; or
- The Project would exceed the 2016 AQMP's future year buildout assumptions. (Urban Crossroads, 2022a, p. 50)

For evaluation under Threshold "b," implementation of the Project would result in a cumulatively-considerable impact if the Project's construction and/or operational activities exceed one or more of



the SCAQMD’s “Regional Thresholds” for criteria pollutant emissions, as summarized in Table 4.2-5, *Maximum Daily Regional Emissions Thresholds*.

**Table 4.2-5 Maximum Daily Regional Emissions Thresholds**

Pollutant	Regional Construction Threshold	Regional Operational Thresholds
NO <sub>x</sub>	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM <sub>10</sub>	150 lbs/day	150 lbs/day
PM <sub>2.5</sub>	55 lbs/day	55 lbs/day
SO <sub>x</sub>	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Pb	3 lbs/day	3 lbs/day

lbs/day = Pounds Per Day

Source: (Urban Crossroads, 2022a, Table 3-1)

For evaluation under Threshold “c,” the Project would result in a significant impact if any of the following were to occur:

- The Project’s localized criteria pollutant emissions would exceed one or more of the “Localized Thresholds” listed in Table 4.2-6, *Maximum Daily Localized Construction Emissions Thresholds*, or Table 4.2-7, *Maximum Daily Localized Operational Emissions Thresholds*.

**Table 4.2-6 Maximum Daily Localized Construction Emissions Thresholds**

Construction Activity	Construction Localized Thresholds			
	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Demolition/Crushing	118 lbs/day	863 lbs/day	280 lbs/day	141 lbs/day
Site Preparation	220 lbs/day	1,713 lbs/day	241 lbs/day	160 lbs/day
Grading	237 lbs/day	1,873 lbs/day	268 lbs/day	163 lbs/day

Localized Thresholds presented in this table are based on the SCAQMD Final LST Methodology, July 2008

Source: (Urban Crossroads, 2022a, Table 4-10)



**Table 4.2-7 Maximum Daily Localized Operational Emissions Thresholds**

Operational Localized Thresholds			
NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
270 lbs/day	2,193 lbs/day	78 lbs/day	41 lbs/day

Localized Thresholds presented in this table are based on the SCAQMD Final LST Methodology, July 2008  
Source: (Urban Crossroads, 2022a, Table 4-12)

- The Project would cause or contribute to a CO “Hot Spot;” and/or
- The Project’s toxic air contaminant emissions, like DPM, would expose sensitive receptor populations to an incremental cancer risk of greater than 10 in one million; and/or result in a non-carcinogenic health risk rating (“Acute Hazard Index”) greater than 1.0.

For evaluation under Threshold “d,” a significant impact would occur if the Project’s construction and/or operational activities result in air emissions leading to an odor nuisance pursuant to SCAQMD Rule 402.

#### 4.2.4 IMPACT ANALYSIS

***Threshold a: Would the Project conflict with or obstruct implementation of the applicable air quality plan?***

The SCAQMD 2016 AQMP, which is the applicable air quality plan for the Project area, addresses long-term air quality conditions for the SCAB. The criteria for determining consistency with the 2016 AQMP are analyzed below.

- *Consistency Criterion No. 1: The proposed project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.*

Consistency Criterion No. 1 refers to violations of the NAAQS and CAAQS. Violations of the NAAQS and/or CAAQS would occur if the emissions resulting from the Project were to exceed the SCAQMD’s localized emissions thresholds. As disclosed under the analysis for Thresholds “b” and “c” below, Project localized and regional construction and operational-source emissions would not exceed applicable SCAQMD regional significance thresholds and LST thresholds. As such, the Project is determined to be consistent with the first criterion.

- *Consistency Criterion No. 2: The Project will not exceed the assumptions in the AQMP based on the years of Project build-out phase.*





The 2016 AQMP demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under federal law. Growth projections from local general plans adopted by cities in the Air District are provided to the SCAG, which develops regional growth forecasts, which are then used to develop future air quality forecasts for the AQMP. Development consistent with the growth projections in City of Ontario Policy Plan is considered to be consistent with the AQMP.

Peak day emissions generated by construction activities are largely independent of land use assignments, but rather are a function of development scope and maximum area of disturbance. Irrespective of the site's land use designation, development of the site to its maximum potential would likely occur, with disturbance of the entire site occurring during construction activities. As such, when considering that no emissions thresholds will be exceeded, a less than significant impact would result.

The Project is designated for Industrial uses within the Policy Plan. The Industrial designation allows for a variety of light industrial uses, including warehousing/distribution, assembly, light manufacturing, research and development, storage, repair facilities, and supporting retail and professional office uses. This designation also accommodates activities that could potentially generate impacts, such as noise, dust, and other nuisances. The Project is proposed to consist of a single 270,337 s.f. warehouse building. As previously stated, this analysis assumes up to 27,034 s.f. of high-cube cold storage use (10% of the total building s.f.) and 243,303 s.f. of warehouse use (90% of total building) which is consistent with the proposed Industrial designation and therefore, the Project does not propose or require amendment of the Site's underlying land use designation.

Furthermore, as discussed below, the Project would not result in or cause exceedances of regional or localized air quality significance thresholds. Emissions generated by the Project are accurately represented in the AQMP emissions modeling, air pollution control strategies, and associated assumptions for emissions affecting the SCAB.

On the basis of the preceding discussion, the Project would not exceed the assumptions in the AQMP based on the years of Project build-out phase. The Project is therefore determined to be consistent with the second criterion.

#### Conclusion

The Project would not result in or cause NAAQS or CAAQS violations and the Project is consistent with the land use and growth intensities reflected in the adopted City of Ontario Policy Plan. Furthermore, the Project would not exceed any applicable regional or local thresholds. As such, the Project is considered to be consistent with the AQMP and impacts would be less than significant. (Urban Crossroads, 2022a, p. 51)



**Threshold b:** *Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?*

**A. Construction Emissions Impact Analysis**

The Project’s peak construction-related emissions are summarized in Table 4.2-8, *Peak Construction Emissions Summary*. Detailed air model outputs are presented in Appendix 4.1 of the Project’s AQIA. As shown in Table 4.2-8, peak construction-related emissions of VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) would not exceed the applicable SCAQMD regional thresholds. Accordingly, the Project’s construction activities would not emit substantial concentrations for all pollutants and would not contribute to an existing or projected air quality violation on a cumulatively-considerable basis, and Project construction impacts would be less than significant.

**Table 4.2-8 Peak Construction Emissions Summary**

Year	Emissions (lbs/day) <sup>1</sup>					
	VOC	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Summer						
2023	1.77	39.60	71.80	0.13	9.9	4.32
2024	47.20	30.20	56.60	0.07	2.58	0.89
Winter						
2023	1.48	21.70	39.80	0.06	1.98	0.65
2024	47.10	30.40	53.50	0.07	2.58	0.89
<b>Maximum Daily Emissions</b>	<b>47.20</b>	<b>39.60</b>	<b>71.80</b>	<b>0.13</b>	<b>9.97</b>	<b>4.32</b>
SCAQMD Regional Threshold	75	100	550	150	150	55
<b>Threshold Exceeded?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>

<sup>1</sup> PM<sub>10</sub> and PM<sub>2.5</sub> emissions include fugitive dust from crushing activities.

CalEEMod construction-source (unmitigated) emissions are presented in Appendix 4.1 of the Project’s AQIA.

Source: (Urban Crossroads, 2022a, Table 4-5)

**B. Operational Emissions Impact Analysis**

Peak emissions from Project operations are presented in Table 4.2-9, *Peak Operational Emissions Summary*. Detailed air model outputs for the operational analysis are provided in Appendices 4.2 and 4.3 of the Project’s AQIA contained as *Technical Appendix B1* of this EIR. As shown, Project operational emissions of VOCs, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> would not exceed SCAQMD regional criteria thresholds. Moreover, existing emissions from operation of the existing uses on the Project Site summarized in Table 4.2-4, *Existing Project Site Operation-Source Emissions*, were subtracted from the Project operational emissions to determine the new emissions from the proposed Project. As summarized in Table 4.2-9, Project operational emissions of VOCs, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> would not exceed SCAQMD regional criteria thresholds. Accordingly, the Project would not emit



substantial concentrations of these pollutants during long-term operation and would not contribute to an existing or projected air quality violation. The Project’s long-term emissions of VOCs, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> would be less than significant.

**Table 4.2-9 Peak Operational Emissions Summary**

Source	Emissions (lbs/day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Summer						
Mobile Source	1.51	11.90	22.21	0.12	2.84	0.70
Area Source	8.45	0.10	11.80	0.00	0.02	0.02
Energy Source	0.16	2.87	2.41	0.02	0.22	0.22
TRU Source	0.79	0.87	0.10	0.00	0.04	0.03
On-Site Equipment Source	0.12	0.38	16.44	0.00	0.03	0.03
<b>Project Maximum Daily Emissions</b>	<b>11.02</b>	<b>16.12</b>	<b>52.96</b>	<b>0.14</b>	<b>3.15</b>	<b>1.00</b>
<i>Subtraction of Emissions from Existing Uses</i>	-2.35	-9.69	-17.96	-0.08	-2.07	-0.56
<b>Total Maximum Daily Emissions</b>	<b>8.67</b>	<b>6.43</b>	<b>35.00</b>	<b>0.06</b>	<b>1.08</b>	<b>0.44</b>
SCAQMD Regional Threshold	55	55	550	150	150	55
<b>Threshold Exceeded?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
Winter						
Mobile Source	1.43	12.49	19.13	0.12	2.84	0.70
Area Source	6.52	0.00	0.00	0.00	0.00	0.00
Energy Source	0.16	2.87	2.41	0.02	0.22	0.22
TRU Source	0.79	0.87	0.10	0.00	0.04	0.03
On-Site Equipment Source	0.12	0.38	16.44	0.00	0.03	0.03
<b>Project Maximum Daily Emissions</b>	<b>9.01</b>	<b>16.61</b>	<b>38.08</b>	<b>0.14</b>	<b>3.13</b>	<b>0.98</b>
<i>Subtraction of Emissions from Existing Uses</i>	-1.99	-10.11	-14.04	-0.08	-2.07	-0.56
<b>Total Maximum Daily Emissions</b>	<b>7.02</b>	<b>6.50</b>	<b>24.04</b>	<b>0.06</b>	<b>1.06</b>	<b>0.42</b>
SCAQMD Regional Threshold	55	55	550	150	150	55
<b>Threshold Exceeded?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>

CalEEMod operational-source emissions are presented in Appendices 4.2 and 4.3 of the Project’s AQIA.  
Source: (Urban Crossroads, 2022a, Table 4-8)



***Threshold c: Would the Project expose sensitive receptors to substantial pollutant concentrations?***

During both construction and operation, the Project has the potential to expose nearby sensitive receptors to substantial pollutant concentrations. The following provides an analysis based on the applicable LSTs established by the State of California and SCAQMD, an analysis of the Project’s potential to result in or contribute to CO “hot spots,” and an analysis of the Project’s potential to result in cancer risks and non-cancer health hazards.

***A. Localized Criteria Pollutant Analysis***

***1. Construction Analysis***

Table 4.2-10, *Localized Construction-Source Emissions Summary*, shows that localized emissions of NO<sub>x</sub>, CO, and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) during Project construction would not exceed applicable SCAQMD thresholds. Accordingly, Project construction would not expose any sensitive receptors in the vicinity of the Project Site to substantial criteria pollutant concentrations. Impacts would be less than significant.

**Table 4.2-10 Localized Construction-Source Emissions Summary**

Construction Activity	Year	Scenario	Emissions (lbs/day)			
			NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Demolition/ Crushing	2023	Summer	12.70	18.70	0.70	0.29
		Winter	n/a	n/a	n/a	n/a
		<b>Maximum Daily Emissions</b>	<b>12.70</b>	<b>18.70</b>	<b>0.70</b>	<b>0.29</b>
		SCAQMD Localized Threshold	118	863	280	141
		<b>Threshold Exceeded?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
Site Preparation	2023	Summer	15.70	30.00	5.76	2.79
		Winter	n/a	n/a	n/a	n/a
		<b>Maximum Daily Emissions</b>	<b>15.70</b>	<b>30.00</b>	<b>5.76</b>	<b>2.79</b>
		SCAQMD Localized Threshold	220	1,713	241	160
		<b>Threshold Exceeded?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
Grading	2023	Summer	19.90	36.20	2.85	1.16
		Winter	n/a	n/a	n/a	n/a
		<b>Maximum Daily Emissions</b>	<b>19.90</b>	<b>36.20</b>	<b>2.85</b>	<b>1.16</b>
		SCAQMD Localized Threshold	237	1,873	268	163
		<b>Threshold Exceeded?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>

CalEEMod unmitigated localized construction-source emissions are presented in Appendix 4.1 of the Project’s AQIA. Source: (Urban Crossroads, 2022a, Table 4-11)



2. *Operational Analysis*

As shown in Table 4.2-11, *Localized Operational-Source Emissions Summary*, Project operations would not exceed the applicable SCAQMD thresholds for localized NO<sub>x</sub>, CO, and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) emissions. Accordingly, the Project would not expose any sensitive receptors in the vicinity of the Project Site to substantial pollutant concentrations. Impacts would be less than significant.

**Table 4.2-11 Localized Operational-Source Emissions Summary**

Scenario	Emissions (lbs/day)			
	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Summer	6.23	34.57	0.37	0.32
Winter	6.22	23.08	0.35	0.30
<b>Maximum Daily Emissions</b>	<b>6.23</b>	<b>34.57</b>	<b>0.37</b>	<b>0.32</b>
SCAQMD Localized Threshold	270	2,193	78	41
<b>Threshold Exceeded?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>

CalEEMod localized operational-source emissions are presented in Appendix 4.3 of the Project’s AQIA.  
Source: (Urban Crossroads, 2022a, Table 4-13)

***B. CO Hot Spot Impact Analysis***

An adverse CO concentration, known as a “hot spot”, would occur if an exceedance of the State one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur. It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last twenty years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SCAB is now designated as attainment.

A CO “hot spot” analysis was not performed for the Project because CO attainment in the SCAB was thoroughly analyzed as part of SCAQMD’s 2003 AQMP and the 1992 Federal Attainment for Carbon Monoxide Plan (1992 CO Plan). For context, the CO “hot spot” analysis performed for the 2003 AQMP recorded a CO concentration of 8.4 parts per million (8-hour) at the Long Beach Boulevard/Imperial Highway intersection in Los Angeles County; however, only a small portion of the recorded CO concentrations (0.7 parts per million) were attributable to traffic congestion at the intersection. The vast majority of the recorded CO concentrations at the Long Beach Boulevard/Imperial Highway intersection (7.7 parts per million) were attributable to ambient air concentrations. In comparison, the ambient 1-hr and 8-hr CO concentration within the Project study area is estimated to be 1.6 ppm and 1.3 ppm, respectively (data from I-10 Near Road monitoring station for 2020). Therefore, even if the traffic volumes for the Project were double or even triple of the traffic volumes generated at the Long



Beach Blvd. and Imperial Hwy. intersection, coupled with the on-going improvements in ambient air quality, the Project would not be capable of resulting in a CO “hot spot” at any study area intersections. Furthermore, data from several air studies indicate that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by between 24,000 and 44,000 vehicles per hour in order to generate a significant CO impact; the Project would generate nowhere near this volume of traffic. Based on the relatively low traffic congestion levels, low existing ambient CO concentrations, and the lack of any unusual meteorological and/or topographical conditions in the Project Site vicinity, the Project is not expected to cause or contribute to a CO “hot spot”. (Urban Crossroads, 2022a, pp. 47-49) Impacts would be less than significant.

***C. Toxic Air Contaminant Emissions Impact Analysis***

***1. Construction Analysis***

Construction activity would occur over the entire Project Site. Therefore, the sensitive receptor land use with the greatest potential exposure to Project construction-source DPM emissions is Location R6 which is located approximately 8,840 feet northwest of the Project Site at an existing residence located at 11210 Fourth Street on the opposite side of I-10 and SR-60 from the Project Site. Since there are no private outdoor living areas (backyards) facing the Project Site, receptor R6 is placed at the building façade facing the Project Site. At the Maximally Exposed Individual Resident (MEIR), the maximum incremental cancer risk attributable to Project construction-source DPM emissions is estimated at <0.01 in one million, which is far less than the SCAQMD’s significance threshold of 10 in one million. At this same location, non-cancer risks were estimated to be <0.01, which would not exceed the applicable threshold of 1.0. There are no sensitive receptors located in immediate, close proximity to the Project Site. As such, the Project will not cause a significant human health or cancer risk to adjacent land uses as a result of Project construction activity. All other receptors during construction activity would experience less risk than what is identified for Location R6. (Urban Crossroads, 2022b, p. 22)

***2. Operational Analysis***

***Residential Exposure***

The Project Site primarily surrounded by industrial uses. Therefore, the residential land use with the greatest potential exposure to Project operational-source DPM emissions is Location R6 which is located approximately 8,840 feet northwest of the Project Site at an existing residence located at 11210 Fourth Street on the opposite side of I-15 and I-10 from the Project Site. Since there are no private outdoor living areas (backyards) facing the Project Site, receptor R6 is placed at the building façade facing the Project Site. At the MEIR, the maximum incremental cancer risk attributable to Project operational-source DPM emissions is estimated at 0.01 in one million, which is far less than the SCAQMD’s significance threshold of 10 in one million. At this same location, non-cancer risks were estimated to be <0.01, which would not exceed the applicable significance threshold of 1.0. Because all other modeled residential receptors are exposed to lesser concentrations and are located at a greater distance from the Project Site than the MEIR analyzed herein, and TACs generally dissipates with distance from the source, all other residential receptors in the vicinity of the Project Site would be exposed to less emissions and therefore less risk than the MEIR identified herein. There are no



residential receptors located in immediate, close proximity to the Project Site. As such, the Project will not cause a significant human health or cancer risk to nearby residences. (Urban Crossroads, 2022b, p. 22)

**Worker Exposure**

The worker receptor land use with the greatest potential exposure to Project operational-source DPM emissions is Location R5, which represents the adjacent potential worker receptor approximately 58 feet east of the Project Site. At the Maximally Exposed Individual Worker (MEIW), the maximum incremental cancer risk impact is 0.25 in one million which is far less than the SCAQMD's threshold of 10 in one million. Maximum non-cancer risks at this same location were estimated to be <0.01, which would not exceed the applicable significance threshold of 1.0. Because all other modeled worker receptors are located at a greater distance than the MEIW analyzed herein, and DPM dissipates with distance from the source, all other worker receptors in the vicinity of the Project would be exposed to less emissions and therefore less risk than the MEIW identified herein. As such, the Project will not cause a significant human health or cancer risk to adjacent workers. (Urban Crossroads, 2022b, pp. 22-23)

**School Child Exposure**

Proximity to sources of toxics is critical to determining the impact. In traffic-related studies, the additional non-cancer health risk attributable to proximity was seen within 1,000 feet and was strongest within 300 feet. California freeway studies show about a 70-percent drop-off in particulate pollution levels at 500 feet. Based on California Air Resources Board (CARB) and SCAQMD emissions and modeling analyses, an 80-percent drop-off in pollutant concentrations is expected at approximately 1,000 feet from a distribution center. The 1,000-foot evaluation distance is supported by research-based findings concerning TAC emission dispersion rates from roadways and large sources showing that emissions diminish substantially between 500 and 1,000 feet from emission sources. A one-quarter mile radius, or 1,320 feet, is commonly utilized for identifying sensitive receptors, such as schools, that may be impacted by a proposed project. This radius is more robust than, and therefore provides a more health protective scenario for evaluation than the 1,000-foot impact radius identified above.

There are no schools within one-quarter mile of the Project Site. The nearest school is Chaparral Elementary School, which is located approximately 11,200 feet southeast of the Project Site. Because there is no reasonable potential that TAC emissions would cause significant health impacts at distances of more than one-quarter mile from the air pollution source, the Project would result in less-than-significant impacts to any schools in the vicinity of the Project. (Urban Crossroads, 2022b, p. 23)

***Threshold d: Would the Project result in other emissions (such as those leading to odors adversely affecting a substantial number of people?)***

During construction activities on the Project Site, odors could be produced by construction equipment exhaust or from the application of asphalt and/or architectural coatings; however, standard construction practices would minimize the odor emissions and their associated impacts. Furthermore, any odors



emitted during construction would be temporary, short-term, and intermittent in nature, and would cease upon the completion of the respective phase of construction. In addition, construction activities on the Project Site would be required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance. (Urban Crossroads, 2022a, p. 53) Accordingly, the Project's construction would not create objectionable odors affecting a substantial number of people and all impacts would be less than significant.

During long-term operation, the Project would operate as a warehouse distribution facility, which is not typically associated with the emission of objectionable odors. Temporary outdoor refuse storage could be a potential source of odor; however, Project-generated refuse is required to be stored in covered containers and removed at regular intervals in compliance with the City's solid waste regulations, thereby precluding any significant odor impact. Furthermore, the occupant(s) of the proposed warehouse building would be required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance, during long-term operation. (Urban Crossroads, 2022a, p. 53) As such, long-term operation of the Project would not create objectionable odors affecting a substantial number of people and all impacts would be less than significant.

#### 4.2.5 CUMULATIVE IMPACT ANALYSIS

Based on SCAQMD guidance, any exceedance of a regional or localized threshold for criteria pollutants also is considered to be a cumulatively-considerable effect, while air pollutant emissions that fall below applicable regional and/or localized thresholds are not considered cumulatively-considerable. As discussed in the analysis under Threshold "b," the criteria pollutant emissions from Project construction and operation would be far less than the SCAQMD regional thresholds of significance. Therefore, the Project's emissions would not be considered cumulatively considerable. Furthermore, the Project would not conflict with the 2016 AQMP and is not considered cumulatively-considerable.

As discussed under the analysis for Threshold "c," all Project-related construction- and operational localized air pollutant emissions – including DPM – would not exceed the applicable SCAQMD thresholds of significance. According to the SCAQMD's *Mates V* study and data visualization tool, which includes an emissions inventory of toxic air contaminants based on 2016-2018 data, the cancer risk in the Project Site's zip code (91761) is 600 per million, which indicates that the air toxics cancer risk in this zip code was higher than 93.0% of the SCAQMD population at the time the data was collected (SCAQMD, 2021). As regulatory requirements have become more stringent, however, air quality has improved and health risks have decreased, despite an increase in the number of warehouses across the Inland Empire and the SCAB (Ramboll, 2023). Because the Project's contribution to health risk would fall far below the SCAQMD's threshold of significance, and the SCAQMD is the regulatory authority responsible for air quality in the SCAB in which the Project site is located, the Project's contribution is not considered cumulatively-considerable.





As indicated in the analysis of Threshold “d,” above, there are no Project components that would expose a substantial number of sensitive receptors to objectionable odors. There are no known sources of offensive odors in the Project area. Because the Project’s construction and operation would not create substantial and objectionable odors and because there are no sources of objectionable odors in the areas immediately surrounding the Project Site, there is no potential for odors from the Project Site to commingle with odors from nearby development projects and expose nearby sensitive receptors to substantial, offensive odors. Accordingly, implementation of the Project would result in a less-than-significant cumulative impact related to odors.

#### **4.2.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION**

Threshold a: Less-than-Significant Impact. The Project would not emit air pollutants that would contribute to a delay in the attainment of federal and State ozone standards in the SCAB. As such, the Project would not conflict with and could obstruct implementation of the *AQMP*, and impacts would be less than significant.

Thresholds b: Less-than-Significant Impact. Project-related activities would not exceed the applicable SCAQMD regional thresholds of significance during construction and operations. As such, Project-related emissions would not violate SCAQMD air quality standards or contribute to the non-attainment of ozone standards in the SCAB, and impacts would be less than significant.

Threshold c: Less-than-Significant Impact. Implementation of the Project would not: 1) exceed applicable SCAQMD localized criteria pollution emissions thresholds during construction and operation; 2) would not expose sensitive receptors to toxic air contaminants (i.e., DPM) that exceed the applicable SCAQMD carcinogenic and non-carcinogenic risk significance thresholds; and 3) would not cause or measurably contribute to the formation of a CO “hot spot.”

Threshold d: Less-than-Significant Impact. The Project would not produce air emissions that would lead to unusual or substantial construction-related or operational-related odors. The Project is required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance.

#### **4.2.7 MITIGATION**

Project impacts would be less than significant and mitigation is not required.



### 4.3 CULTURAL RESOURCES

The analysis in this Subsection is based in part on a cultural resources record search prepared by Brian F. Smith and Associates, Inc. (hereinafter, “BFSA”) and titled “Cultural Resources Records Search Results for the 5355 Airport Drive Project, Ontario, California”, dated May 20, 2022 (BFSA, 2022). This report is included as *Technical Appendix C* to this EIR. This and other reference sources are cited and listed in Section 7.0, *References*.

#### 4.3.1 EXISTING CONDITIONS

A cultural resources records search was obtained from the South Central Coastal Information Center (SCCIC) at California State University, Fullerton, which encompassed the Project Site and an area of one-half mile surrounding the Project Site. The records search identified 3 resources within one-half mile of the Project Site and no resources within the Project boundaries. The resources include a historic railroad track alignment, a historic foundation, and a historic transmission line alignment. No prehistoric resources were recorded on the Project Site or within one-half mile of the Project Site (BFSA, 2022). The Site is fully developed with a grain processing facility and a corn storage and distribution facility, so there is no reasonable possibility that prehistoric resources could be located on the surface of the Site. The existing uses have construction dates of 1975, so the buildings are newer than 50 years of age and not historic, with no reasonable possibility of historic resources to be present on the property.

#### 4.3.2 REGULATORY SETTING

##### **A. Federal Plans, Policies, and Regulations**

##### ***1. National Historic Preservation Act***

The National Historic Preservation Act of 1966 (NHPA) was passed primarily to acknowledge the importance of protecting United States heritage. Section 106 of NHPA granted legal status to historic preservation in federal planning, decision-making, and project execution. Section 106 requires all federal agencies to take into account the effects of their actions on historic properties, and provide ACHP with a reasonable opportunity to comment on those actions and the manner in which federal agencies are taking historic properties into account in their decisions. (NPS, 2021a)

A number of additional executive and legislative actions have been directed toward improving the ways in which all federal agencies manage historic properties and consider historic and cultural values in their planning and assistance. Executive Order 11593 (1971) and, later, Section 110 of NHPA (1980, amended 1992), provided the broadest of these mandates, giving federal agencies clear direction to identify and consider historic properties in federal and federally assisted actions. The National Historic Preservation Amendments of 1992 further clarified Section 110 and directed federal agencies to establish preservation programs commensurate with their missions and the effects of their authorized programs on historic properties. (NPS, 2021a)



## 2. *National Register of Historic Places (NRHP)*

The National Register of Historic Places is the official list of the Nation's historic places worthy of preservation. Authorized by the NHPA of 1966, the NPS's National Register of Historic Places (NRHP) is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archaeological resources. (NPS, 2020a)

To be considered eligible, a property must meet the National Register Criteria for Evaluation. This involves examining the property's age, integrity, and significance, as follows:

- **Age and Integrity.** Is the property old enough to be considered historic (generally at least 50 years old) and does it still look much the way it did in the past?
- **Significance.** Is the property associated with events, activities, or developments that were important in the past? With the lives of people who were important in the past? With significant architectural history, landscape history, or engineering achievements? Does it have the potential to yield information through archaeological investigation about our past? (NPS, 2020a)

Nominations can be submitted to a SHPO from property owners, historical societies, preservation organizations, governmental agencies, and other individuals or groups. The SHPO notifies affected property owners and local governments and solicits public comment. If the owner (or a majority of owners for a district nomination) objects, the property cannot be listed but may be forwarded to the NPS for a Determination of Eligibility (DOE). Listing in the NRHP provides formal recognition of a property's historical, architectural, or archaeological significance based on national standards used by every state. (NPS, 2020a)

Under Federal Law, the listing of a property in the National Register places no restrictions on what a non-federal owner may do with their property up to and including destruction, unless the property is involved in a project that receives Federal assistance, usually funding or licensing/permitting. National Register listing does not lead to public acquisition or require public access. (NPS, 2020a)

## 3. *American Indian Religious Freedom Act*

The American Indian Religious Freedom Act (AIRFA) requires each executive branch agency with statutory or administrative responsibility for the management of Federal lands, to the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions, to accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and avoid adversely affecting the physical integrity of such sacred sites. Where appropriate, agencies are also required to maintain the confidentiality of sacred sites. Each executive branch agency with statutory or administrative responsibility for the management of Federal lands are required to implement procedures to ensure reasonable notice is provided of proposed actions or land management



policies that may restrict future access to or ceremonial use of, or adversely affect the physical integrity of, sacred sites. (NOAA, n.d.)

#### 4. *Native American Graves Protection and Repatriation Act (NAGPRA)*

The Native American Graves Protection and Repatriation Act (NAGPRA; Public Law 101-601; 25 U.S.C. 3001-3013) describes the rights of Native American lineal descendants, Indian tribes, and Native Hawaiian organizations with respect to the treatment, repatriation, and disposition of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony, referred to collectively in the statute as cultural items, with which they can show a relationship of lineal descent or cultural affiliation. (NPS, 2021c)

One major purpose of this statute is to require that federal agencies and museums receiving Federal funds inventory holdings of Native American human remains and funerary objects and provide written summaries of other cultural items. The agencies and museums must consult with Indian Tribes and Native Hawaiian organizations to attempt to reach agreements on the repatriation or other disposition of these remains and objects. Once lineal descent or cultural affiliation has been established, and in some cases the right of possession also has been demonstrated, lineal descendants, affiliated Indian Tribes, or affiliated Native Hawaiian organizations normally make the final determination about the disposition of cultural items. Disposition may take many forms from reburial to long term curation, according to the wishes of the lineal descendent(s) or culturally affiliated Tribe(s). (NPS, 2021c)

The second major purpose of the statute is to provide greater protection for Native American burial sites and more careful control over the removal of Native American human remains, funerary objects, sacred objects, and items of cultural patrimony on Federal and tribal lands. NAGPRA requires that Indian tribes or Native Hawaiian organizations be consulted whenever archaeological investigations encounter, or are expected to encounter, Native American cultural items or when such items are unexpectedly discovered on Federal or tribal lands. Excavation or removal of any such items also must be done under procedures required by the Archaeological Resources Protection Act. This NAGPRA requirement is likely to encourage the in-situ preservation of archaeological sites, or at least the portions of them that contain burials or other kinds of cultural items. (NPS, 2021c)

Other provisions of NAGPRA: (1) stipulate that illegal trafficking in human remains and cultural items may result in criminal penalties; (2) authorizes the Secretary of the Interior to administer a grants program to assist museums and Indian Tribes in complying with certain requirements of the statute; (3) requires the Secretary of the Interior to establish a Review Committee to provide advice and assistance in carrying out key provisions of the statute; authorizes the Secretary of the Interior to penalize museums that fail to comply with the statute; and, (4) directs the Secretary to develop regulations in consultation with this Review Committee. (NPS, 2021c)



***B. State Plans, Policies, and Regulations***

***1. California Administrative Code, Title 14, Section 4308***

Section 4308, *Archaeological Features*, of Title 14 of the California Administrative Code provides that: “No person shall remove, injure, disfigure, deface, or destroy any object of archaeological, or historical interest or value.” (NPS, n.d.)

***2. California Code of Regulations Title 14, Section 1427***

California Code of Regulations Title 14, Section 1427 provides that: “No person shall collect or remove any object or thing of archaeological or historical interest or value, nor shall any person injure, disfigure, deface or destroy the physical site, location or context in which the object or thing of archaeological or historical interest or value is found.” (NAHC, n.d.)

***3. California Register of Historic Resources***

The State Historical Resources Commission has designed this program for use by state and local agencies, private groups, and citizens to identify, evaluate, register, and protect California's historical resources. The Register is the authoritative guide to the state's significant historical and archaeological resources. The California Register program encourages public recognition and protection of resources of architectural, historical, archaeological, and cultural significance; identifies historical resources for state and local planning purposes; determines eligibility for state historic preservation grant funding; and affords certain protections under CEQA. (OHP, n.d.)

In order for a resource to be included on the Register of Historic Resources, the resources must meet one of the following criteria:

- Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States (Criterion 1).
- Associated with the lives of persons important to local, California or national history (Criterion 2).
- Embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of a master or possesses high artistic values (Criterion 3).
- Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation (Criterion 4). (OHP, n.d.)

For resources included on the Register of Historic Resources, environmental review may be required under CEQA if property is threatened by a project. Additionally, local building inspectors must grant code alternatives provided under State Historical Building Code. Further, the local assessor may enter into contract with property owner for property tax reduction pursuant to the Mills Act. A property owner also may place his or her own plaque or marker at the site of the resource. (OHP, n.d.)



Consent of owner is not required, but a resource cannot be listed over an owner's objections. The State Historical Resources Commission (SHRC) may formally determine a property eligible for the California Register if the resource owner objects. (OHP, n.d.)

#### 4. *Assembly Bill 52 (AB 52)*

California Assembly Bill 52 (AB 52) (2014) Chapter 532 amended Section 5097.94 of, and added Sections 21073, 21074, 21080.3.1, 21080.3.2, 21802.3, 21083.09, 21084.2 and 21084.3 to the California Public Resources Code, relating to Native Americans. AB 52 was approved on September 25, 2014. By including tribal cultural resources early in the CEQA process, the legislature intended to ensure that local and Tribal governments, public agencies, and project proponents would have information available, early in the project planning process, to identify and address potential adverse impacts to tribal cultural resources. By taking this proactive approach, the legislature also intended to reduce the potential for delay and conflicts in the environmental review process. (OPR, 2017b)

The Public Resources Code now establishes that “[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment.” (Pub. Resources Code, § 21084.2.) To help determine whether a project may have such an effect, the Public Resources Code requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. (OPR, 2017b)

If a lead agency determines that a project may cause a substantial adverse change to tribal cultural resources, the lead agency must consider measures to mitigate that impact. Public Resources Code § 20184.3 (b)(2) provides examples of mitigation measures that lead agencies may consider to avoid or minimize impacts to tribal cultural resources. These rules apply to projects that have a notice of preparation for an environmental impact report or negative declaration or mitigated negative declaration filed on or after July 1, 2015. (OPR, 2017b)

§ 21074 of the Public Resources Code defines “tribal cultural resources.” In brief, in order to be considered a “tribal cultural resource,” a resource must be either:

- (1) listed, or determined to be eligible for listing, on the national, state, or local register of historic resources, or
- (2) a resource that the lead agency chooses, in its discretion, to treat as a tribal cultural resource. (OPR, 2017b)

In the latter instance, the lead agency must determine that the resource meets the criteria for listing in the state register of historic resources. In applying those criteria, a lead agency must consider the value of the resource to the tribe. (OPR, 2017b)



### 5. *State Health and Safety Code*

California Health and Safety Code (HSC) § 7050.5(b) requires that excavation and disturbance activities must cease “In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery...” until the coroner can determine regarding the circumstances, manner, and cause of any death. The coroner is then required to make recommendations concerning the treatment and disposition of the human remains. Further, this section of the code makes it a misdemeanor to intentionally disturb, mutilate or remove interred human remains. § 7051 specifies that the removal of human remains from “internment or a place of storage while awaiting internment” with the intent to sell them or to dissect them with “malice or wantonness” is a public offense punishable by imprisonment in a state prison. Lastly, HSC §§ 8010-8011 establish the California Native American Graves Protection and Repatriation Act consistent with the federal law addressing the same. The Act stresses that “all California Indian human remains and cultural items are to be treated with dignity and respect.” It encourages voluntary disclosure and return of remains and cultural items by publicly funded agencies and museums in California. It also outlines the need for aiding California Indian tribes, including non-federally recognized tribes, in filing repatriation claims. (CA Legislative Info, n.d.)

### 6. *California Code of Regulations Section 15064.5*

The California Code of Regulations, Title 14, Chapter 3, § 15064.5 (the State CEQA Guidelines) establishes the procedure for determining the significance of impacts to archaeological and historical resources, as well as classifying the type of resource. Cultural resources are aspects of the environment that require identification and assessment for potential significance. The evaluation of cultural resources under CEQA is based upon the definitions of resources provided in CEQA Guidelines § 15064.5, as follows: (CRNA, 2019)

- A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code § 5024.1, Title 14 CCR, Section 4850 et seq.).
- A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be “historically significant” if the resource



meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code § 5024.1, Title 14 CCR, Section 4852) including the following:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
  - Is associated with the lives of persons important in our past;
  - Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
  - Has yielded, or may be likely to yield, information important in prehistory or history.
- The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1.

#### 4.3.3 BASIS FOR DETERMINING SIGNIFICANCE

Section V of Appendix G to the CEQA Guidelines addresses typical adverse effects to cultural resources, and includes the following threshold questions to evaluate the Project's impacts on cultural resources (OPR, 2019):

- a. *Cause a substantial adverse change in the significance of a historical resource in pursuant to § 15064.5;*
- b. *Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5;*
- c. *Disturb any human remains, including those interred outside of formal cemeteries?*

#### 4.3.4 IMPACT ANALYSIS

***Threshold a: Would the Project cause a substantial adverse change in the significance of a historical resource in pursuant to § 15064.5?***

Under existing conditions, the Project Site is currently developed with a grain processing company and a corn storage and distribution facility. The eastern portion of the Project Site contains grain storage silos, grain mill area, and five buildings that are used for maintenance and repair, grain storage, and service shop. The western portion of the Project Site contains enclosed silo grain storage, with an office trailer. A vehicle wash-down area is also present on the northeastern portion of the Site, and three known septic systems are located beneath the Site. Implementation of the Project would require the demolition of all structures that are located on the Project Site under existing conditions.





BFSA conducted a cultural resources record search of the Project Site and concluded that no recorded historical resources pursuant to CEQA Guidelines Section 15064.5 are located within the Project boundaries or a one-half mile radius of the Project Site. The structures on the Project Site have a construction date of 1975 and after; and, the buildings and features within the Project Site were assessed and found not to be historically or architecturally significant under CEQA. Accordingly, implementation of the Project would not result in a substantial adverse change to any historical resource as defined by CEQA Guidelines Section 15064.5. No impact to a historical resource would occur.

***Threshold b: Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?***

BFSA conducted a cultural resources record search of the Project Site and one-half mile radius around the Project Site. The results of this records search indicate that no pre/protohistoric cultural resources are located on or within a one-half mile of the Project Site. Additionally, no pre/protohistoric resources were observed on the Project Site. Therefore, implementation of the Project would not cause a substantial adverse change in the significance of a known prehistoric archaeological resource pursuant to CEQA Guidelines Section 15064.5.

Given the lack of any previously identified pre/protohistoric sites within or near the property and the magnitude of ground disturbances on the Project Site over the previous 47 years including the presence of subsurface septic systems, there is little potential for any pre/protohistoric resources to be present or disturbed by the proposed development. Notwithstanding, excavations on portions of the Project Site would occur within previously undisturbed soils that have the potential to contain pre/protohistoric archaeological resources. If any pre/protohistoric cultural resources are unearthed during Project construction that meet the definition of a significant archaeological resource pursuant to CEQA Guidelines Section 15064.5 and are disturbed/damaged by Project construction activities, impacts to those pre/protohistoric cultural resources would be significant. Based on the tribal consultation process conducted under AB 52, mitigation is presented in Subsection 4.3.7 consisting of monitoring and treatment procedures for any discovered resources that would lessen potential impacts to below a level of significance. Refer to Section 4.11, *Tribal Cultural Resources*, for details on the tribal consultation process.

***Threshold c: Would the Project disturb any human remains, including those interred outside of formal cemeteries?***

The Project Site does not contain a cemetery and no known formal cemeteries are located within the immediate Site vicinity. Nevertheless, the remote potential exists that human remains may be unearthed during grading and excavation activities associated with Project construction.

If human remains are unearthed during Project construction, the construction contractor would be required by law to comply with California Health and Safety Code Section 7050.5 “Disturbance of Human Remains.” According to Section 7050.5(b) and (c), if human remains are discovered, the



County Coroner must be contacted and if the Coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, the Coroner is required to contact the Native American Heritage Commission (NAHC) by telephone within 24 hours. Pursuant to California Public Resources Code Section 5097.98, whenever the NAHC receives notification of a discovery of Native American human remains from a county coroner, the NAHC is required to immediately notify those persons it believes to be most likely descended from the deceased Native American. The descendants may, with the permission of the owner of the land, or his or her authorized representative, inspect the site of the discovery of the Native American human remains and may recommend to the owner or the person responsible for the excavation work means for treatment or disposition, with appropriate dignity, of the human remains and any associated grave goods. The descendants shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the Project Site. According to Public Resources Code Section 5097.94(k), the NAHC is authorized to mediate disputes arising between landowners and known descendants relating to the treatment and disposition of Native American human burials, skeletal remains, and items associated with Native American burials. With mandatory compliance to California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98, any potential impacts to human remains, including human remains of Native American ancestry, that may result from development of the Project would be less than significant.

#### 4.3.5 CUMULATIVE IMPACT ANALYSIS

Record searches indicate the absence of significant historical sites and resources on the Project Site; therefore, implementation of the Project has no potential to contribute towards a significant cumulative impact to historical sites and/or resources.

The potential for Project construction to result in cumulatively-considerable impacts to prehistoric archaeological resources were also analyzed in conjunction with other projects located in the traditional use areas of Native American tribes that are affiliated to the Project Site. Development activities on the Project Site would not impact any known prehistoric archaeological resources and the likelihood of uncovering previously unknown prehistoric archaeological resources during Project construction are low due to the magnitude of surface and subsurface disturbance that has occurred on the Site to-date. Nonetheless, the remote potential exists for subsurface prehistoric archaeological resource that meet the CCR Section 15064.5 definition of a significant archaeological resource to be discovered beneath the surface of the Project Site during Project-related construction activities and on and beneath other development project sites in the region during construction activities. Accordingly, the Project has the potential to contribute to a significant cumulatively-considerable impact to prehistoric archaeological resources, if such resources are unearthed during Project construction, for which mitigation is required. As discussed below, with implementation of mitigation, cumulatively-considerable impacts would be less than significant.

Mandatory compliance with the provisions of California Health and Safety Code Section 7050.5 as well as Public Resources Code Section 5097 *et seq.*, would assure that all future development projects within the region treat human remains that may be uncovered during development activities in



accordance with prescribed, respectful and appropriate practices, thereby avoiding significant cumulative impacts.

#### 4.3.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold a: No Impact. No historic resources, as defined by CEQA Guidelines Section 15064.5, are present on the Project Site nor is there a reasonable possibility that they could be discovered beneath the surface of the Site given the construction dates of existing surface improvements; therefore, no historic resources could be altered or destroyed by construction or operation of the Project.

Threshold b: Significant Direct and Cumulatively-Considerable Impact. No known prehistoric resources are present on the Project Site and the likelihood of uncovering buried prehistoric resources on the Project Site is low due to the magnitude of previous ground disturbance on the Project Site. Nonetheless, the remote potential exists for Project-related construction activities to uncover resources and result in a direct and cumulatively-considerable impact to significant subsurface prehistoric archaeological resources should such resources be discovered during Project-related construction activities. Moreover, during the course of the tribal consultation process, tribal monitoring was requested by the Gabrieleño Band of Mission Indians – Kizh Nation during the Project’s ground-disturbing construction activities.

Threshold c: Less-than-Significant Impact. In the unlikely event that human remains are discovered during Project grading or other ground disturbing activities, the Project would be required to comply with the applicable provisions of California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097 *et seq.* Mandatory compliance with State law would ensure that any discovered human remains are appropriately treated and would preclude the potential for significant impacts.

#### 4.3.7 MITIGATION

The following mitigation measures address the potential for Project construction activities to impact significant archaeological resources that may be discovered during ground-disturbing construction activities. The following measures shall be required as notes on all grading plans and construction documents that involve subsurface ground disturbance.

- MM 4.3-1 Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities:
- a. The project applicant/lead agency shall retain a Native American Monitor from or approved by the Gabrieleño Band of Mission Indians – Kizh Nation. The monitor shall be retained prior to the commencement of any “ground-disturbing activity” for the subject project at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). “Ground-disturbing activity” shall include, but is



not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching<sup>1</sup>

- b. A copy of the executed monitoring agreement shall be submitted to the lead agency prior to the earlier of the commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity.
- c. The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or “TCR”), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the project applicant/lead agency upon written request to the Tribe.
- d. On-site tribal monitoring shall conclude upon the latter of the following (1) written confirmation to the Kizh from a designated point of contact for the project applicant/lead agency that all ground-disturbing activities and phases that may involve ground disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Kizh to the project applicant/lead agency that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact Kizh TCRs.
- e. Upon discovery of any TCRs, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and shall not resume until the discovered TCR has been fully assessed by the Kizh monitor and/or Kizh archaeologist. The Kizh will recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate, in the Tribe’s sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural and/or historic purposes.

MM 4.3-2 Unanticipated Discovery of Human Remains and Associated Funerary Objects:

- a. Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute.

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<sup>1</sup> Tribal monitoring shall cease once all ground disturbance activities have been completed with respect to the property or portion thereof. Example: Once excavation, grading, trenching, etc. have occurred tribal monitoring shall cease.



- b. If Native American human remains and/or grave goods discovered or recognized on the project site, then all construction activities shall immediately cease. Health and Safety Code Section 7050.5 dictates that any discoveries of human skeletal material shall be immediately reported to the County Coroner and all ground disturbing activities shall immediately halt and shall remain halted until the coroner has determined the nature of the remains. If the coroner recognizes the human remains to be those of a Native American or has reason to believe they are Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission, and Public Resources Code Section 5097.98 shall be followed.
- c. Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2).
- d. Construction activities may resume in other parts of the project site at a minimum of 200 feet away from discovered human remains and/or burial goods, if the Kizh determines in its sole discretion that resuming construction activities at that distance is acceptable and provides the project manager express consent of that determination (along with any other mitigation measures the Kizh monitor and/or archaeologist deems necessary). (CEQA Guidelines Section 15064.5(f))
- e. Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods. Any historic archaeological material that is not Native American in origin (non-TCR) shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, it shall be offered to a local school or historical society in the area for educational purposes.
- f. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.

MM 4.3-3 Procedures for Burials and Funerary Remains:

- a. As the Most Likely Descendant (“MLD”), the Koo-nas-gna Burial Policy shall be implemented. To the Tribe, the term “human remains” encompasses more than human bones. In ancient as well as historic times, Tribal Traditions included, but were not limited to, the preparation of the soil for burial, the burial of funerary objects with the deceased, and the ceremonial burning of human remains.
- b. If the discovery of human remains includes four or more burials, the discovery location shall be treated as a cemetery and a separate treatment plan shall be created.



- c. The prepared soil and cremation soils are to be treated in the same manner as bone fragments that remain intact. Associated funerary objects are objects that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later; other items made exclusively for burial purposes or to contain human remains can also be considered as associated funerary objects. Cremations will either be removed in bulk or by means as necessary to ensure complete recovery of all sacred materials.
- d. In the case where discovered human remains cannot be fully documented and recovered on the same day, the remains will be covered with muslin cloth and a steel plate that can be moved by heavy equipment placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24-hour guard should be posted outside of working hours. The Tribe will make every effort to recommend diverting the project and keeping the remains in situ and protected. If the project cannot be diverted, it may be determined that burials will be removed.
- e. In the event preservation in place is not possible despite good faith efforts by the project applicant/developer and/or landowner, before ground-disturbing activities may resume on the project site, the landowner shall arrange a designated site location within the footprint of the project for the respectful reburial of the human remains and/or ceremonial objects.
- f. Each occurrence of human remains and associated funerary objects will be stored using opaque cloth bags. All human remains, funerary objects, sacred objects and objects of cultural patrimony will be removed to a secure container on site if possible. These items should be retained and reburied within six months of recovery. The site of reburial/repatriation shall be on the project site but at a location agreed upon between the Tribe and the landowner at a site to be protected in perpetuity. There shall be no publicity regarding any cultural materials recovered.
- g. The Tribe will work closely with the project's qualified archaeologist to ensure that the excavation is treated carefully, ethically and respectfully. If data recovery is approved by the Tribe, documentation shall be prepared and shall include (at a minimum) detailed descriptive notes and sketches. All data recovery data recovery-related forms of documentation shall be approved in advance by the Tribe. If any data recovery is performed, once complete, a final report shall be submitted to the Tribe and the NAHC. The Tribe does NOT authorize any scientific study or the utilization of any invasive and/or destructive diagnostics on human remains.



#### 4.3.8 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Threshold b: Less-than-Significant Impact with Mitigation. Implementation of MM 4.3-1 through MM 4.3-3 would ensure the proper identification and subsequent treatment of any significant archaeological resources that may be encountered during ground-disturbing activities associated with Project construction. With implementation of the required mitigation, the Project's potential impacts to important archaeological resources would be reduced to less-than-significant. Cumulatively-considerable impacts would likewise be reduced to less-than-significant.



## 4.4 ENERGY

The analysis in this subsection is primarily based on information contained in a technical report prepared by Urban Crossroads, Inc. titled, “IE Distribution Center #14 Energy Analysis”, dated August 30, 2022 (Urban Crossroads, 2022c). The technical report is included as *Technical Appendix D* to this EIR. Refer to Section 7.0, *References* for a complete list of reference sources used in this subsection.

### 4.4.1 EXISTING CONDITIONS

#### A. Electricity Consumption

The Project Site is located within the service area of Southern California Edison (SCE). SCE provides electricity to more than 15 million people in 15 counties and in 180 incorporated cities, within a service area encompassing approximately 50,000 square miles. SCE generates electricity from varied energy resources including: fossil fuels, hydroelectric generators, nuclear power plants, geothermal power plants, solar power generation, and wind farms. SCE also purchases from independent power producers and utilities, including out-of-state suppliers. (Urban Crossroads, 2022c, p. 15)

Under existing conditions, the Project Site is occupied and operating as a grain processing company and a corn storage and distribution facility. The estimated electricity consumption of the existing development on the Project Site is approximately 1,027,373 kilo-watt hour (kWh) per year (Urban Crossroads, 2022c, p. 27).

#### B. Natural Gas Consumption

The Project Site is located within the service area of the Southern California Gas Company (SoCalGas) which is regulated by the California Public Utilities Commission (CPUC). SoCalGas provides service to approximately 5.9 million customers. Natural gas from out-of-state production basins is delivered into California via the interstate natural gas pipeline system. The gas transported to California via the interstate pipelines, as well as some of the California-produced gas, is delivered into SoCalGas intrastate natural gas transmission pipelines systems (commonly referred to as California’s “backbone” pipeline system). Natural gas on the utilities’ backbone pipeline system is then delivered to the local transmission and distribution pipeline systems, or to natural gas storage fields. (Urban Crossroads, 2022c, p. 17)

The existing development on the Project Site is estimated to consume approximately 794,266 kilo British Thermal unit (kBTU) of natural gas per year (Urban Crossroads, 2022c, p. 27).

#### C. Transportation Energy/Fuel Consumption

Gasoline and other vehicle fuels are commercially-provided commodities. In 2021, the Department of Motor Vehicles (DMV) identified 36.2 million registered vehicles in California, and those vehicles consume an estimated 17.2 billion gallons of fuel each year. (Urban Crossroads, 2022c, p. 19-20)





The existing development on the Project Site is estimated to consume approximately 134,254 gallons of vehicle fuels per year (Urban Crossroads, 2022c, p. 27).

#### 4.4.2 REGULATORY SETTING

##### ***A. Federal Plans, Policies, and Regulations***

###### ***1. Intermodal Surface Transportation Efficiency Act (ISTEA)***

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions. The applicable MPO for the City of Ontario is the Southern California Association of Governments (SCAG). SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) is the applicable planning document for the area. (FHWA, n.d.)

###### ***2. The Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21)***

TEA-21 was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation, discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety. (Urban Crossroads, 2022c, p. 22)

##### ***B. State Plans, Policies, and Regulations***

###### ***1. Integrated Energy Policy Report***

Senate Bill 1389 (Bowen, Chapter 568, Statutes of 2002) requires the California Energy Commission (CEC) to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing California's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the State's economy; and protect public health and safety (Public Resources Code § 25301a). The CEC prepares these assessments and associated policy recommendations every two years, with updates on alternate years, as part of the Integrated Energy Policy Report (IEPR). (Urban Crossroads, 2022c, p. 22)

The 2021 IEPR was adopted February 2022, and continues to work towards improving electricity, natural gas, and transportation fuel energy use in California. The 2021 IEPR provides the results of the



CEC's assessments of a variety of energy issues facing California. Many of these issues will require action if the state is to meet its climate, energy, air quality, and other environmental goals while maintaining reliability and controlling costs. Additionally, the 2021 IEPR provides the results of the CEC's assessments of a variety of energy issues facing California. Many of these issues will require action if the state is to meet its climate, energy, air quality, and other environmental goals while maintaining reliability and controlling costs. (Urban Crossroads, 2022c, p. 22-23)

## **2. *State of California Energy Plan***

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The Plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies several strategies, including assistance to public agencies and fleet operators and encouragement of urban designs that reduce vehicle miles traveled (VMT) and accommodate pedestrian and bicycle access. (Urban Crossroads, 2022c, p. 23)

## **3. *California Code Title 24, Part 6, Energy Efficiency Standards***

California Code of Regulations (CCR) Title 24 Part 6: The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption.

The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on August 1, 2009, and is administered by the California Building Standards Commission.

CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that will be effective on January 1, 2023. The Project would be required to comply with the applicable standards in place at the time plan check submittals are made. (Urban Crossroads, 2022c, p. 23)

## **4. *Pavley Regulations and Fuel Efficiency Standards (AB 1493)***

California AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Under this legislation, CARB adopted regulations to reduce GHG emissions from non-commercial passenger vehicles (cars and light-duty trucks). Although aimed at reducing GHG emissions, specifically, a co-benefit of the Pavley standards is an improvement in fuel efficiency and consequently a reduction in fuel consumption. (Urban Crossroads, 2022c, p. 23)



5. *California Renewable Portfolio Standards (RPS)*

First established in 2002 under Senate Bill (SB) 1078, California's Renewable Portfolio Standards (RPS) requires retail sellers of electric services to increase procurement from eligible renewable resources to 33% of total retail sales by 2020 (Urban Crossroads, 2022c, p. 24).

6. *Senate Bill 350 (SB 350) – Clean Energy and Pollution Reduction Act of 2015*

In October 2015, the legislature approved, and the Governor signed, SB 350, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the renewables portfolio standard (RPS), higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for electric vehicle charging stations. Specifically, SB 350 requires the following to reduce statewide GHG emissions:

- Increase the amount of electricity procured from renewable energy sources from 33 percent to 50 percent by 2030, with interim targets of 40 percent by 2024, and 25 percent by 2027.
- Double the energy efficiency in existing buildings by 2030. This target will be achieved through the California Public Utility Commission (CPUC), the CEC, and local publicly owned utilities.
- Reorganize the Independent System Operator (ISO) to develop more regional electrify transmission markets and to improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States. (Urban Crossroads, 2022c, p. 24)

**4.4.3 BASIS FOR DETERMINING SIGNIFICANCE**

According to Section I of Appendix G to the CEQA Guidelines, the proposed Project would result in a significant impact associated with energy consumption if the Project or any Project-related component would (OPR, 2019):

- a. *Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation;*
- b. *Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*



#### 4.4.4 IMPACT ANALYSIS

***Threshold a:*** *Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

##### ***A. Energy Use During Project Construction***

The Project's construction process would consume electrical energy and diesel fuel. Project-related construction would represent a "single-event" energy demand and would not require on-going or permanent commitment of diesel fuel resources. Project construction activities are estimated to consume approximately 113,853 kWh of electricity, 67,491 gallons of diesel fuel from operation of construction equipment, 15,066 gallons of fuel from construction worker trips, and 11,965 gallons of fuel related to construction vendor trips (Urban Crossroads, 2022c, p. 30-38). Detailed calculations for all components of the Project's construction energy use are provided in subsection 5.3 of the Project's energy analysis (refer to *Technical Appendix D*).

Construction equipment use of fuel would not be atypical for the type of construction proposed because there are no aspects of the Project's proposed construction process that are unusual or energy-intensive, and Project construction equipment would conform to the applicable CARB emissions standards, acting to promote equipment fuel efficiencies. (Urban Crossroads, 2022c, p. 41)

CCR Title 13, Title 13, Motor Vehicles, Section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Best Available Control Measures (BACMs) inform construction equipment operators of this requirement. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints. (Urban Crossroads, 2022c, p. 41)

As supported by the preceding discussion, the Project's construction energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

##### ***B. Energy Use During Project Operations***

Energy consumption in support of or related to Project operations would include transportation fuel demands (fuel consumed by passenger car and truck vehicles accessing the Project Site), fuel demands from operational equipment, and facilities energy demands (energy consumed by building operations, site maintenance activities, and on-site cargo handling equipment).

The Project energy demand is calculated to be 179,406 gallons of fuel, 5,337,545 kBTU of natural gas per year, and 1,774,048 kWh of electricity per year. The energy consumption of existing uses on the Project Site (refer to Subsection 4.4.1) were subtracted from the Project's gross energy totals to determine the new, net energy demands from the proposed Project. The net Project energy demand is calculated to be 45,152 gallons of fuel, 4,543,279 kBTU of natural gas per year, and 746,675 kWh of electricity per year. Project on-site cargo handling equipment would consume an estimated 4,642



gallons of natural gas per year (Urban Crossroads, 2022c, p. 38-40). Refer to subsection 5.4 of the Project's energy analysis (see *Technical Appendix D*) for detailed calculations of all components of the Project's operational energy use.

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands. The Project would implement sidewalks, facilitating and encouraging pedestrian access. Facilitating pedestrian and bicycle access would reduce VMT and associated energy consumption. In compliance with the California Green Building Standards Code and City requirements, the Project would promote the use of bicycles as an alternative mean of transportation by providing short-term and/or long-term bicycle parking accommodations. (Urban Crossroads, 2022c, p. 42)

Project on-site equipment would conform to the applicable CARB emissions standards, acting to promote equipment fuel efficiencies. The Project proposes a conventional warehouse use reflecting contemporary energy efficient/energy conserving designs and operational programs. The Project does not propose uses that are inherently energy intensive and the energy demands in total would be comparable to other industrial uses of similar scale and configuration. Lastly, the Project will comply with the applicable California Green Building Standard Code Title 24 standards. (Urban Crossroads, 2022c, p. 43)

As supported by the preceding discussion, the Project's operational energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

***Threshold b: Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?***

The following analyzes the Project's consistency with the applicable federal, State, and local regulations for renewable energy of energy efficiency.

***A. Consistency with Federal Energy Regulations***

***1. Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)***

Transportation and access to the Project Site is provided by the local and regional roadway systems. The Project would not interfere with, nor otherwise obstruct intermodal transportation plans or projects that may be realized pursuant to the ISTEA because SCAG is not planning for intermodal facilities on or through the Project Site. (Urban Crossroads, 2022c, p. 45)

***2. The Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21)***

The Project Site is located along major transportation corridors with proximate access to the Interstate freeway system. The Site selected for the Project facilitates access, acts to reduce vehicle miles



traveled, takes advantage of existing infrastructure systems, and promotes land use compatibilities through collocation of similar uses. The Project supports the strong planning processes emphasized under TEA-21. The Project is therefore consistent with, and would not otherwise interfere with, nor obstruct implementation of TEA-21. (Urban Crossroads, 2022c, p. 45)

***B. Consistency with State Energy Regulations***

***1. Integrated Energy Policy Report***

SCE would provide electricity service to the Project. SCE's Clean Power and Electrification Pathway (CPEP) white paper builds on existing state programs and policies. As such, the Project is consistent with, and would not otherwise interfere with, nor obstruct implementation the goals presented in the 2021 IEPR.

Additionally, the Project is required to comply with the applicable Title 24 standards which would ensure that the Project energy demands would not be inefficient, wasteful, or otherwise unnecessary. As such, development of the proposed Project would support the goals presented in the 2020 IEPR. (Urban Crossroads, 2022c, p. 45)

***2. State of California Energy Plan***

The Project Site is located along major transportation corridors with proximate access to the Interstate freeway system. The Site selected for the Project facilitates access and takes advantage of existing infrastructure systems. The Project therefore supports urban design and planning processes identified under the State of California Energy Plan, is consistent with, and would not otherwise interfere with or obstruct, implementation of the State of California Energy Plan. (Urban Crossroads, 2022c, p. 46)

***3. California Code Title 24, Part 6, Energy Efficiency Standards***

The 2022 version of Title 24 was adopted by the CEC and will become effective on January 1, 2023. As the Project building construction is anticipated after that date, it is presumed that the Project would be required to comply with the Title 24 standards in place at that time. Therefore, the Project would result in a less-than-significant impact on energy resources. The proposed Project would be subject to Title 24 standards as a requirement of the California Building Standards Code. (Urban Crossroads, 2022c, p. 46)

***4. California Code Title 24, Part 11, CALGreen***

As previously stated, CCR, Title 24, Part 11: CALGreen is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on January 1, 2009, and is administered by the California Building Standards Commission. CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that were published on July 1, 2022 and will become effective on January 1, 2023. The Project would be required to comply with the applicable standards in place at the time plan check submittals are made. (Urban Crossroads, 2022c, p. 46)



**5. *Pavley Fuel Efficiency Standards (AB 1493)***

AB 1493 is not applicable to the Project as it is a statewide measure establishing vehicle emissions standards. No feature of the Project would interfere with implementation of the requirements under AB 1493. (Urban Crossroads, 2022c, p. 46)

**6. *Renewable Portfolio Standards (SB 1078)***

California's RPS is not applicable to the Project as it is a statewide measure that establishes a renewable energy mix. No feature of the Project would interfere with implementation of the requirements under RPS. (Urban Crossroads, 2022c, p. 46)

**7. *Senate Bill 350 (SB 350) – Clean Energy and Pollution Act***

The proposed Project would use energy from SCE, which has committed to diversify their portfolio of energy sources by increasing energy from wind and solar sources. No feature of the Project would interfere with implementation of SB 350. Additionally, the Project would be designed and constructed to implement the energy efficiency measures for new industrial developments and would include several measures designed to reduce energy consumption.

As shown above, the Project would not conflict with any of the state or local plans. As such, a less than significant impact is expected. (Urban Crossroads, 2022c, p. 46)

***C. Consistency with Local Energy Regulations***

**1. *City of Ontario Community Climate Action Plan***

The Project would comply with applicable City of Ontario Community Climate Action Plan (CCAP) checklist measures. Compliance with the CCAP checklist measures would further reduce reliance on fossil fuels and expand the use of renewable energy. (Urban Crossroads, 2022c, p. 47)

***D. Conclusion***

As supported by the preceding analysis, the Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency and a less-than-significant impact related to energy consumption would occur.

**4.4.5 CUMULATIVE IMPACT ANALYSIS**

The Project and other new development projects within the cumulative study area would be required to comply with all of the same applicable federal, State, and local regulatory measures aimed at reducing fossil fuel consumption and the conservation of energy. Accordingly, the Project would not cause or contribute to a significant cumulatively considerable impact related to conflicts with a State or local plan for renewable energy efficiency.



#### 4.4.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold a: Less-than-Significant Impact. The amount of energy and fuel consumed by construction and operation of the Project would not be inefficient, wasteful, or unnecessary. Furthermore, the Project would not cause or result in the need for additional energy facilities or energy delivery systems.

Threshold b: Less-than-Significant Impact. The Project would not cause or result in the need for additional energy production or transmission facilities. The Project would not conflict with or obstruct the achievement of energy conservation goals within the State of California identified in State and local plans for renewable energy and energy efficiency.

#### 4.4.7 MITIGATION

Impacts would be less than significant; therefore, mitigation is not required.





## 4.5 GEOLOGY AND SOILS

The analysis in this subsection is based primarily on information contained in the technical report prepared by Southern California Geotechnical titled “Geotechnical Investigation Proposed Warehouse 5355 East Airport Drive Ontario, California”, dated March 9, 2022. The technical report is included as *Technical Appendix E1* to this EIR (SoCal Geotechnical, 2022a). In addition, an infiltration report prepared by Southern California Geotechnical, dated March 9, 2022, was used in this analysis and is included as *Technical Appendix E2* (Southern California Geotechnical, 2022b). Additional sources of information used to support the analysis in this subsection include the Final Supplemental EIR prepared for The Ontario Plan (Ontario, 2022b) and the Ontario Development Code (Ontario, 2021a). All of the references used in this subsection are listed in EIR Section 7.0, *References*.

### 4.5.1 EXISTING CONDITIONS

#### A. Soils

Artificial fill soils were encountered beneath the existing pavements at all of the Project Site’s infiltration boring locations, extending to depths of 3 to 4± feet below the existing site grades. The fill soils generally consist of medium dense to dense silty sands, with occasional loose sands. The fill soils possess a disturbed mottled appearance resulting in their classification as artificial fill. Native alluvial soils were encountered beneath the fill soils at all of the infiltration boring locations, extending to at least the maximum depth explored of 12± feet. The alluvium generally consists of loose sands, silty sands and silty sands to sandy silts, with occasional medium dense silty sands. (Southern California Geotechnical, 2022b, p. 3)

#### B. Groundwater

Free water was not encountered during the drilling of any of the borings. Based on the lack of any water within the borings, and the moisture contents of the recovered soil samples, the static groundwater table is considered to have existed as a depth in excess of 30± feet at the time of the subsurface exploration. (SoCal Geotechnical, 2022a, p. 7)

According to the water level data obtained from the California Department of Water Resources Water Data Library website, the nearest monitoring well on record (identified as State Well Number: 01S06W29H001S) is located 3,400± feet southeast of the Project Site. Water level readings within this monitoring well indicate a high groundwater level of 277± feet below the ground surface in April 2019. (SoCal Geotechnical, 2022a, p. 7)

#### C. Seismic Hazards

The Project Site is located in an area that is subject to strong ground motions due to earthquakes. Numerous faults capable of producing significant ground motions are located near the Project Site. An active fault is defined by the California Geotechnical Survey as a fault that has experienced surface displacement within the Holocene Epoch (roughly the last 11,000 years). The nearest active fault to



the Project Site is the Cucamonga Fault, located approximately 7 miles to the north of the Project Site (CGS, 2015).

Secondary hazards associated with earthquakes include surface rupture, ground failure, unstable soils and slopes. Each of these hazards is briefly described below.

### 1. *Fault Rupture*

Research of available maps indicates that the Project Site is not located within an Alquist-Priolo Earthquake Fault Zone. No evidence of faulting was identified during the geotechnical investigation. (SoCal Geotechnical, 2022a, p. 10)

### 2. *Liquefaction*

Liquefaction is the loss of strength in generally cohesionless, saturated soils when the pore-water pressure induced in the soil by a seismic event becomes equal to or exceeds the overburden pressure. The primary factors which influence the potential for liquefaction include groundwater table elevation, soil type and grain size characteristics, relative density of the soil, initial confining pressure, and intensity and duration of ground shaking. The depth within which the occurrence of liquefaction may impact surface improvements is generally identified as the upper 50 feet below the ground surface. Liquefaction potential is greater in saturated, loose, poorly graded fine sands with a mean ( $d_{50}$ ) grain size in the range of 0.075 to 0.2 mm. Clayey (cohesive) soils or soils which possess clay particles ( $d < 0.005\text{mm}$ ) in excess of 20 percent are generally not considered to be susceptible to liquefaction, nor are those soils which are above the historic static groundwater table. (SoCal Geotechnical, 2022a, p. 12)

The general liquefaction susceptibility of the Project Site was determined by research of the San Bernardino County Land Use Plan, General Plan, Geologic Hazard Overlays. Map FH28C for the Guasti 7.5-Minute Quadrangle indicates that the Project Site is not located within an area of liquefaction susceptibility. (SoCal Geotechnical, 2022a, p. 12)

### 3. *Unstable Soils and Slopes*

The Project Site slopes gently to the south-southeast at a gradient of less than 1 percent. There is no evidence of historical landslides or rockfalls on the Project Site (CGS, 2021). As such, the Project Site is not susceptible to seismically-induced landslides and rockfalls.

## ***D. Slope and Instability Hazards***

### 1. *Soil Erosion*

Erosion is the movement of rock and soil due to water, wind, and gravity. Soil erosion may be a slow process that continues relatively unnoticed, or it may occur quickly, causing loss of topsoil. The rate and magnitude of soil erosion by water is controlled by rainfall intensity and runoff, soil texture and cohesion, slope gradient and length, and vegetation cover. The young alluvial sediment and wind-



blown sand underlying the Project Site are generally granular, poorly consolidated, and very susceptible to erosion. Grading increases the potential for erosion by removing protective vegetation, changing natural drainage patterns, and constructing slopes. (Ontario, 2022b, p. 5.7-16)

## 2. *Settlement Potential*

Settlement refers to unequal compression of a soil foundation, shrinkage, or undue loads being applied to a building after its initial construction that affects the soil foundation. According to Southern California Geotechnical, the potential for seismically induced settlement is considered low (SoCal Geotechnical, 2022a, p. 10).

## 3. *Shrinkage/Subsidence Potential*

Subsidence is a gradual settling or sudden sinking of the ground surface (i.e., loss of elevation). The principal causes of subsidence are aquifer-system compaction, drainage of organic soils, underground mining, and natural compaction. Shrinkage is the reduction in volume in soil as the water content of the soil drops (i.e., loss of volume). According to Southern California Geotechnical, the potential for subsidence to affect the Project Site is considered low (SoCal Geotechnical, 2022a, p. 10).

## 4. *Soil Expansion Potential*

Expansive soils are soils that exhibit cyclic shrink and swell patterns in response to variations in moisture. Sites with expansive soils (expansion index > 20) require special attention during project design and maintenance. According to Southern California Geotechnical, the near-surface soils on the Project Site consist of sands and silty sands with no appreciable clay content. These materials have been visually classified as non-expansive. Therefore, no design considerations related to expansive soils are considered warranted for the Project Site. (SoCal Geotechnical, 2022a, p. 13)

## 5. *Landslide Potential*

The Project Site slopes gently to the south-southeast at a gradient of less than 1 percent. There is no evidence of historical landslides or rockfalls on the Project Site (CGS, 2021). As such, the Project Site is not susceptible to seismically-induced landslides and rockfalls.

## E. *Paleontological Setting*

### 1. *Regional Setting*

The City of Ontario is underlain by sediments less than 11,000 years old (Holocene) and deposited either by water or wind. In general, the alluvial fan sediments are coarse grained in the northern part of the City and consist of various mixtures of sand, gravel, and cobbles. Moving south away from the mountains, the sediments gradually become finer grained, consisting primarily of silt, silty clay, and silty sand. Generally, soils with faster infiltration rates, higher levels of organic matter, and improved soil structure, such as sand, sandy loam, and loam-textured soils have a greater resistance to erosion than silt, very fine sand, and certain-clay textured soils. (Ontario, 2022b, p. 5.7-5)



The possibility of finding additional paleontological resources within City boundaries is moderate to high. Geologic maps indicate that the City is situated on surface exposures of recent alluvium. These sediments have low potential to yield fossil resources or to contain significant nonrenewable paleontological resources. However, these recent sediments overlie older Pleistocene sediments with high potential to contain paleontological resources. Older Pleistocene alluvial sediments have yielded significant fossils of extinct plants and animals elsewhere in the Inland Empire. These older sediments, often found at depths of 10 feet or more below the ground surface, have yielded the fossil remains of plants and extinct terrestrial Pleistocene vertebrates. Significant vertebrate fossils from this age include Ice Age mammals such as camels, mammoths, mastodons, and ground sloths (Ontario, 2022b, p. 5.7-17)

## 2. *Project Site Conditions*

The Project Site is underlain by Young Eolian Deposits (Qye) and Very Young Alluvial Fan Deposits (Qf). Qye are wind-deposited Holocene sediments consisting of silt and fine- to medium-grained sand which are generally about 10 feet thick and are underlain by alluvial fan deposits. Qf are Late Holocene and consist predominantly of sand, gravel, cobbles, and boulders that form the active and recently active portions of the fan. These deposits are generally unconsolidated to slightly consolidated, and where they have not been graded, they have a network of braided channels on the surface (Ontario, 2022b, p. 5.7-5 through 5.7-7).

### 4.5.2 REGULATORY SETTING

The following is a brief description of the federal, State, and local environmental laws and related regulations governing issues related to geology, soils, and paleontological resources.

#### A. *Federal Plans, Policies, and Regulations*

##### 1. *Clean Water Act*

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was substantially reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972. Under the CWA, the Environmental Protection Agency (EPA) has implemented pollution control programs such as setting wastewater standards for industry, and also has set water quality standards for all contaminants in surface waters. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained. EPA's National Pollutant Discharge Elimination System (NPDES) permit program controls discharges. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. (EPA, 2020e)



## 2. *Paleontological Resources Preservation Act*

The Paleontological Resources Preservation Act (PRPA) was signed into law on March 30, 2009 (Public Law 111-11, Title VI, Subtitle D; 16 U.S.C. §§ 470aaa - 470aaa-11). PRPA directs the Department of Agriculture (U.S. Forest Service) and the Department of the Interior (National Park Service, Bureau of Land Management, Bureau of Reclamation, and Fish and Wildlife Service) to implement comprehensive paleontological resource management programs. Section 6310 of PRPA specifically states, "As soon as practical after the date of enactment of this Act, the Secretary shall issue such regulations as are appropriate to carry out this subtitle, providing opportunities for public notice and comment." (NPS, n.d.)

### ***B. State Plans, Policies, and Regulations***

#### 1. *Alquist-Priolo Earthquake Fault Zoning Act (A-P Act)*

The Alquist-Priolo Earthquake Fault Zoning Act (A-P Act) was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The A-P Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The A-P Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards. (CA Legislative Info, n.d.)

The A-P Act requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones) around the surface traces of active faults and to issue appropriate maps. "Earthquake Fault Zones" were called "Special Studies Zones" prior to January 1, 1994. The maps are distributed to all affected cities, counties, and state agencies for their use in planning and controlling new or renewed construction. Local agencies must regulate most development projects within the zones. Projects include all land divisions and most structures for human occupancy. Single family wood-frame and steel-frame dwellings up to two stories not part of a development of four units or more are exempt. However, local agencies can be more restrictive than state law requires. (CA Legislative Info, n.d.)

Before a project can be permitted, cities and counties must require a geologic investigation to demonstrate that proposed buildings will not be constructed across active faults. An evaluation and written report of a specific site must be prepared by a licensed geologist. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back from the fault (generally 50 feet). (CA Legislative Info, n.d.)

#### 2. *Seismic Hazards Mapping Act*

The Seismic Hazards Mapping Act (SHMA) of 1990 (Public Resources Code, Chapter 7.8, § 2690-2699.6) directs the Department of Conservation, California Geological Survey to identify and map areas prone to liquefaction, earthquake-induced landslides, and amplified ground shaking. The purpose of the SHMA is to minimize loss of life and property through the identification, evaluation, and mitigation of seismic hazards. (CDC, n.d.)



Staff geologists in the Seismic Hazards Program gather existing geological, geophysical, and geotechnical data from numerous sources to produce the Seismic Hazard Zone Maps. They integrate and interpret these data regionally in order to evaluate the severity of the seismic hazards and designate as Zones of Required Investigation (ZORI) those areas prone to liquefaction and earthquake-induced landslides. Cities and counties are then required to use the Seismic Hazard Zone Maps in their land use planning and building permit processes. (CDC, n.d.)

The SHMA requires site-specific geotechnical investigations be conducted within the ZORI to identify and evaluate seismic hazards and formulate mitigation measures prior to permitting most developments designed for human occupancy. (CDC, n.d.)

### 3. *Natural Hazards Disclosure Act*

The Natural Hazards Disclosure Act, effective June 1, 1998 (as amended June 9, 1998), requires that sellers of real property and their agents provide prospective buyers with a "Natural Hazard Disclosure Statement" when the property being sold lies within one or more state-mapped hazard areas, including a Seismic Hazard Zone. (CA Legislative Info, n.d.)

The law requires the State Geologist to establish regulatory zones (Zones of Required Investigation) and to issue appropriate maps (Seismic Hazard Zone maps). These maps are distributed to all affected cities, counties, and state agencies for their use in planning and controlling construction and development. Single-family wood-frame dwellings up to two stories not part of a development of four or more units are exempt from the state requirements. However, local agencies can be more restrictive than state law requires. (CA Legislative Info, n.d.)

Before a development permit can be issued or a subdivision approved, cities and counties must require a site-specific investigation to determine whether a significant hazard exists at the Site and, if so, recommend measures to reduce the risk to an acceptable level. The investigation must be performed by state-licensed engineering geologist and/or civil engineer. (CA Legislative Info, n.d.)

### 4. *Essentials Services Building Seismic Safety Act*

In 1986, the California Legislature determined that buildings providing essential services should be capable of providing those services to the public after a disaster. Their intent in this regard was defined in legislation known as the Essential Services Buildings Seismic Safety Act of 1986 and includes requirements that such buildings shall be "...designed and constructed to minimize fire hazards and to resist...the forces generated by earthquakes, gravity, and winds." This enabling legislation can be found in the California Health and Safety Code, Chapter 2, § 16000 through 16022. In addition, the California Building Code defines how the intent of the act is to be implemented in Title 24, Part 1 of the California Building Standards Administrative Code, Chapter 4, Articles 1 through 3. (CAB, n.d.)

### 5. *California Building Standards Code (Title 24)*

California Code of Regulations (CCR) Title 24 is reserved for state regulations that govern the design and construction of buildings, associated facilities, and equipment. These regulations are also known



as building standards (reference California Health and Safety Code § 18909). Health and Safety Code § 18902 gives CCR Title 24 the name California Building Standards Code (CBSC). (CBSC, 2019, p. 1)

The CBSC in CCR Title 24 is published by the California Building Standards Commission and it applies to all building occupancies (see Health and Safety Code §§ 18908 and 18938) throughout the State of California. Cities and counties are required by state law to enforce CCR Title 24 (reference Health and Safety Code §§ 17958, 17960, 18938(b), and 18948). Cities and counties may adopt ordinances making more restrictive requirements than provided by CCR Title 24, because of local climatic, geological, or topographical conditions. Such adoptions and a finding of need statement must be filed with the California Building Standards Commission (Reference Health and Safety Code §§ 17958.7 and 18941.5). (CBSC, 2019, p. 1)

## 6. California Public Resources Code

Paleontological sites are protected under a wide variety of State policies and regulations in the California Public Resources Code (PRC). In addition, paleontological resources are recognized as nonrenewable resources and receive protection under the PRC and CEQA. PRC Division 5, Chapter 1.7, § 5097.5, and Division Chapter 3, § 30244. This statute prohibits the removal, without permission, of any paleontological site or feature from lands under the jurisdiction of the State or any city, county, district, authority, or public corporation, or any agency thereof. As a result, local agencies are required to comply with PRC 5097.5 for their own activities, including construction and maintenance, as well as for permit actions (e.g., encroachment permits) undertaken by others. PRC § 5097.5 establishes the removal of paleontological resources as a misdemeanor and requires reasonable mitigation of adverse impacts to paleontological resources from developments on public lands (state, county, city, and district). (CA Legislative Info, 2011)

### 4.5.3 BASIS FOR DETERMINING SIGNIFICANCE

Section VI of Appendix G to the CEQA Guidelines addresses typical adverse effects due to geological conditions, and includes the following threshold questions to evaluate the Project's impacts resulting from geologic or soil conditions (OPR, 2019):

- a. *Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*
  - i. *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42;*
  - ii. *Strong seismic ground shaking;*
  - iii. *Seismic-related ground failure, including liquefaction;*



- iv. *Landslides;*
  - b. *Result in substantial soil erosion or the loss of topsoil;*
  - c. *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;*
  - d. *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property;*
  - e. *Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water;*
  - f. *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

#### 4.5.4 IMPACT ANALYSIS

***Threshold a:*** *Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42; strong seismic ground shaking; seismic-related ground failure, including liquefaction; landslides?*

##### ***A. Rupture of Known Earthquake Fault***

There are no known active or potentially active faults on or trending toward the Project Site. Research of available maps indicates that the Project Site is not located within an Alquist-Priolo Earthquake Fault Zone. No evidence of faulting was identified during the geotechnical investigation. (SoCal Geotechnical, 2022a, p. 10) Because there are no known faults located on or trending towards the Project Site, there is no potential for the Project to directly or indirectly expose people or structures to substantial adverse effects related to ground rupture. Impacts would be less than significant.

##### ***B. Strong Seismic Ground Shaking***

The Project Site is located in a seismically active area of southern California and is expected to experience moderate to severe ground shaking during the lifetime of the Project. The risk is not substantially different than the risk to other properties throughout the southern California area. As a mandatory condition of Project approval, the Project Applicant would be required to construct the proposed building in accordance with the CBSC and the Ontario Development Code. The CBSC and Ontario Development Code, which have been specifically tailored for California earthquake conditions, provide building standards that must be met to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use and





occupancy, location, and maintenance of all buildings and structures. In addition, the CBSC (Chapter 18) require development project sites to be evaluated in preliminary soil reports to identify site-specific geologic and seismic conditions and provide site-specific recommendations to preclude adverse effects involving unstable soils and strong seismic ground-shaking, including, but not limited to, recommendations related to ground stabilization, selection of appropriate foundation type and depths, and selection of appropriate structural systems. The Project Applicant retained a professional geotechnical firm, Southern California Geotechnical, to prepare a geotechnical investigation for the Project Site, which is included as *Technical Appendix E1* to this EIR. The geotechnical investigation included recommendations for design, construction, and grading considerations based on the site-specific geological conditions and the Project's specific design. The recommendations included seismic design considerations, geotechnical design considerations, site grading, construction, foundation design and construction, floor slab design and construction, retaining wall design and construction, and pavement design parameters. This geotechnical investigation complies with the requirements of Chapter 18 of the CBSC. With mandatory compliance with these standards and site-specific design and construction measures, implementation of the Project would not directly or indirectly expose people or structures to substantial adverse effects, including loss, injury or death, involving seismic ground shaking. Impacts would be less than significant.

### ***C. Seismic-Related Ground Failure***

The Project would be required to be designed and constructed in accordance with applicable seismic safety guidelines, including the standard requirements of the CBSC, as noted above. Furthermore, the Project would be required (via conditions of approval) to comply with the grading and construction recommendations contained within the geotechnical investigation for the Project Site to further reduce the risk of seismic-related ground failure due to liquefaction. Therefore, implementation of the Project would not directly or indirectly expose people or structures to substantial hazards associated with seismic-related ground failure and/or liquefaction hazards. Impacts would be less than significant.

### ***D. Landslides***

The Project Site is relatively flat, as is the immediately surrounding area. The Project Site slopes gently to the south-southeast at a gradient of less than 1 percent. There is no evidence of historical landslides or rockfalls on the Project Site (CGS, 2021). The Project includes retaining walls, which would be constructed in accordance with the site-specific recommendations contained within the geotechnical report to ensure their structural soundness. The City would condition the Project to comply with the site-specific design and engineering recommendations contained within the geotechnical investigation to ensure these measures are implemented. Mandatory compliance with the recommendations contained within the Project Site's geotechnical report would ensure that the Project is engineered and constructed to maximize stability and preclude safety hazards to on-site and abutting off-site areas. Accordingly, the Project would not be exposed to substantial landslide risks, and implementation of the Project would not pose a substantial direct or indirect landslide risk to surrounding properties. Impacts would be less than significant.



***Threshold b: Would the Project result in substantial soil erosion or the loss of topsoil?***

***A. Construction-Related Erosion Impacts***

Development of the Project would result in the demolition of all structures on-site, and grading and construction activities would occur that would expose and disturb soils that are currently covered by impervious surfaces. Disturbed soils would be subject to potential erosion during rainfall events or high winds due to the removal of stabilizing vegetation and building materials (e.g., existing concrete foundations) and exposure of these erodible materials to wind and water.

Pursuant to the requirements of the State Water Resources Control Board, the Project Applicant would be required to obtain coverage under the State's General Construction Storm Water Permit for construction activities (NPDES permit). The NPDES permit is required for all development projects that include construction activities, such as clearing, grading, and/or excavation, that disturb at least 1 acre of total land area. In addition, the Project would be required to comply with the Santa Ana RWQCB's Santa Ana River Basin Water Quality Control Program. Compliance with the NPDES permit and the Santa Ana River Basin Water Quality Control Program involves the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) for construction-related activities. The SWPPP will specify the Best Management Practices (BMPs) that the Project Applicant will be required to implement during construction activities to ensure that waterborne pollution – including erosion/sedimentation – is prevented, minimized, and/or otherwise appropriately treated prior to surface runoff being discharged from the subject property. Examples of BMPs that may be utilized during construction include, but are not limited to, sandbag barriers, geotextiles, storm drain inlet protection, sediment traps, rip rap soil stabilizers, and hydro-seeding. Mandatory compliance with the SWPPP would ensure that the Project's implementation does not violate any water quality standards or waste discharge requirements during construction activities. Therefore, water quality impacts associated with construction activities would be less than significant and no mitigation measures would be required.

***B. Post-Development Erosion Impacts***

Upon Project build-out, the Project Site would be covered by buildings, landscaping, and impervious surfaces. Stormwater runoff from the Project Site would be captured, treated to reduce waterborne pollutants (including sediment), and conveyed off-site via an on-site storm drain system.

The Project would be required to implement erosion control measures pursuant to Ontario Municipal Code Title 6, Chapter 12. During operation of the Project, the Project Applicant would be required to prepare and implement a Water Quality Management Plan (WQMP) to demonstrate compliance with the City's NPDES municipal stormwater permit, and to minimize the release of potential waterborne pollutants, including pollutants of concern for downstream receiving waters. The WQMP is a site-specific post-construction water quality management program designed to address the potential release of pollutants of concern for downstream receiving waters and other water pollutants through the use of BMPs. Implementation of the WQMP ensures on-going, long-term protection of the watershed basin. The Preliminary WQMP for the Project was prepared by Westland and is included as *Technical*



Appendix H2 to this EIR. Because the Project Applicant would be required to utilize erosion and sediment control measures to preclude substantial, long-term soil erosion and loss of topsoil, Project operation would result in less-than-significant impacts related to soil erosion and sedimentation.

***Threshold c: Would the Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?***

The Project Site is relatively flat, as is the immediately surrounding area. The Project Site slopes gently to the south-southeast at a gradient of less than 1 percent. There is no evidence of historical landslides or rockfalls on the Project Site (CGS, 2021). As noted in the response to Threshold “a”, the Project includes retaining walls and manufactured slopes that would be engineered for structural soundness and constructed in accordance with the site-specific recommendations contained within the geotechnical investigation for the Project. Accordingly, the Project would result in less than significant impacts associated with landslide hazards.

Southern California Geotechnical indicated that there is a low potential for subsidence to affect the Project Site. Removal and recompaction of the near-surface existing soils is estimated to result in an average shrinkage of 5 to 15 percent. Minor ground subsidence is expected to occur in the soils below the zone of removal, due to settlement and machinery working. The subsidence is estimated to be 0.15 feet. The City will condition the Project to comply with the Site-specific ground preparation and construction recommendations contained in the Project’s geotechnical report. Based on the foregoing, potential impacts related to soil shrinkage/subsidence and collapse would be less than significant.

Southern California Geotechnical indicated that there is a low potential for lateral spreading to affect the Project Site. Lateral spreading is primarily associated with liquefaction hazards. As noted above under the discussion of Threshold “a,” the Project Site is not susceptible to liquefaction. Accordingly, impacts associated with lateral spreading would be less than significant.

***Threshold d: Would the Project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?***

The near-surface soils consist of sands and silty sands with no appreciable clay content. These materials have been visually classified as non-expansive. Therefore, no design considerations related to expansive soils are considered warranted for this Site. (SoCal Geotechnical, 2022a, p. 13) Accordingly, the Project Site does not contain expansive soils and as such, would not create substantial direct or indirect risks to life or property associated with the presence of expansive soils. No impacts would occur.



***Threshold e: Would the Project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?***

The Project would connect to an existing sewer line installed beneath Airport Drive. The existing on-site septic systems would be removed and there would be no continued use of Project-site related septic systems upon implementation of the proposed Project. The Project would not utilize septic tanks or alternative wastewater systems. No impact related to the use of alternative waste water systems would thus occur.

***Threshold f: Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?***

The Project Site is underlain by Young Eolian Deposits (Qye) and Very Young Alluvial Fan Deposits (Qf). Qye are wind-deposited Holocene sediments consisting of silt and fine- to medium-grained sand which are generally about 10 feet thick and are underlain by alluvial fan deposits. Qf are Late Holocene and consist predominantly of sand, gravel, cobbles, and boulders that form the active and recently active portions of the fan. These deposits are generally unconsolidated to slightly consolidated, and where they have not been graded, they have a network of braided channels on the surface (Ontario, 2022b, p. 5.7-5 through 5.7-7).

The possibility of finding additional paleontological resources within City boundaries is moderate to high. However, geologic maps indicate that the Project Site is situated on surface exposures of recent alluvium. These sediments have low potential to yield fossil resources or to contain significant nonrenewable paleontological resources. However, these recent sediments overlies older Pleistocene sediments with high potential to contain paleontological resources. (Ontario, 2022b, p. 5.7-17) In the event that the Project's construction activities encroach into previously undisturbed older alluvium deposits, the Project could result in impacts to important paleontological resources if such resources are unearthed and not properly treated. Therefore, the Project's potential to directly or indirectly destroy a unique paleontological resource buried beneath the ground surface is determined to be a potentially significant impact and mitigation is required.

#### 4.5.5 CUMULATIVE IMPACT ANALYSIS

With the exception of erosion hazards, potential hazardous effects related to geologic and soil conditions addressed under Thresholds "a," "c," "d," and "e" are unique to the Project Site, and inherently restricted to the specific property proposed for development. That is, issues including fault rupture, seismic ground shaking, liquefaction, landslides, and expansive soils would involve effects to (and not from) a proposed development project, are specific to conditions on the subject property, and are not influenced or exacerbated by the geologic and/or soil hazards that may occur on other, off-site properties. Further, as noted in the foregoing analysis, all potential Project-related direct and indirect impacts related to potential hazardous effects related to geologic and soil conditions would be precluded through mandatory conformance with the CBSC, Ontario Development Code, other standard regulatory requirements, and the site-specific geotechnical recommendations contained within the



Project's geotechnical investigation, which will be incorporated into the Project's design via conditions of approval. Because of the site-specific nature of these potential hazards and the measures to address them, there would be no direct or indirect connection to similar potential issues or cumulative effects to or from other properties.

As discussed under Threshold "b", regulatory requirements mandate that the Project incorporate design measures during construction and long-term operation to ensure that significant erosion impacts do not occur. Other development projects in the vicinity of the Project Site would be required to comply with the same regulatory requirements as the Project to preclude substantial adverse water and wind erosion impacts. Because the Project and other projects within the cumulative study area would be subject to similar mandatory regulatory requirements to control erosion hazards during construction and long-term operation, cumulative impacts associated with wind and water erosion hazards would be less than significant.

The Project's potential to result in cumulative impacts to paleontological resources (Threshold "f") is similar to that of other projects located in the region that are underlain by older alluvial soils. Because the older alluvial soils present on the Project Site contain high paleontological sensitivity and because this geologic layer is present throughout the City of Ontario and southern California, the potential to impact paleontological resources is a cumulatively-considerable impact for which mitigation is required.

#### **4.5.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION**

Threshold a: Less-than-Significant Impact. Implementation of the Project would not expose people or structures to substantial direct or indirect adverse effects related to liquefaction or fault rupture. The Project Site is subject to seismic ground shaking associated with earthquakes; however, mandatory compliance with local and State regulatory requirements and building codes would ensure that the Project minimizes potential hazards related to seismic ground shaking to less-than-significant levels.

Threshold b: Less-than-Significant Impact. Implementation of the Project would not result in substantial soil erosion or loss of topsoil. The Project Applicant would be required to obtain a NPDES permit for construction activities and adhere to a SWPPP, and prepare an erosion control plan to minimize water and wind erosion. Following completion of development, the Project's owner or operator would be required by law to implement a PWQMP during operation, which would preclude substantial erosion impacts in the long-term.

Threshold c: Less-than-Significant Impact. There is no potential for the Project's construction or operation to cause, or be impacted by, on- or off-site landslides or lateral spreading. Potential hazards associated with unstable soils would be precluded through mandatory adherence to the recommendations contained in the site-specific geotechnical report during Project construction.

Threshold d: No Impact. The Project Site contains soils that are classified as non-expansive. Therefore, the Project Site does not contain expansive soils and as such, would not create substantial direct or



indirect risks to life or property associated with the presence of expansive soils. No impact would occur.

Threshold e: No Impact. No septic tanks or alternative wastewater disposal systems are proposed to be used as part of the Project. Accordingly, no impact would occur with soil compatibility for waste water disposal systems.

Threshold f: Significant Direct and Cumulatively Considerable Impact. The Project would not impact any known paleontological resource or unique geological feature. However, the Project Site is underlain by older alluvium soils with a high sensitivity for paleontological resources. Accordingly, construction activities on the Project Site have the potential to unearth and adversely impact paleontological resource that may be buried beneath the ground surface.

#### 4.5.7 MITIGATION

- MM 4.5-1 Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Ontario that a qualified paleontologist (“paleontologist”) has been retained by the Project Applicant or contractor to conduct monitoring of excavation activities in old alluvium soils and has the authority to halt and redirect earthmoving activities in the event that suspected paleontological resources are unearthed.
- MM 4.5-2 The paleontologist shall conduct full-time monitoring during grading and excavation operations in undisturbed Holocene and late Pleistocene old alluvial fan deposits starting at a depth of five (5) feet below the existing ground surface. The paleontologist shall be equipped to salvage fossils if they are unearthed to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The paleontologist shall be empowered to temporarily halt or divert equipment to allow for the removal of abundant and large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if present, are determined upon exposure and examination by the paleontologist to have a low potential to contain or yield fossil resources.
- MM 4.5-3 Recovered specimens shall be properly prepared to a point of identification and permanent preservation, including screen washing sediments to recover small invertebrates and vertebrates, if necessary. Identification and curation of specimens into the collections of the Division of Geological Sciences, San Bernardino County Museum, shall be required for discoveries of significance as determined by the paleontological monitor.
- MM 4.5-4 A final monitoring and mitigation report of findings and significance shall be prepared, including lists of all fossils recovered, if any, and necessary maps and graphics to



accurately record the original location of the specimens. The report shall be submitted to the City of Ontario prior to issuance of the first occupancy permit.

#### **4.5.8 SIGNIFICANCE OF IMPACTS AFTER MITIGATION**

Threshold f: Less-than-Significant Impact with Mitigation Incorporated. MMs 4.5-1 through 4.5-4 would ensure the proper identification and subsequent treatment of any paleontological resources that may be encountered during ground-disturbing activities associated with implementation of the proposed Project. Therefore, with implementation of MMs 4.5-1 through 4.5-4, the Project's potential impact to paleontological resources would be reduced to less-than-significant.



## 4.6 GREENHOUSE GAS EMISSIONS

The analysis provided in this subsection evaluates the Project's potential to generate greenhouse gas (GHG) emissions that could contribute substantially to Global Climate Change (GCC) and its associated environmental effects. This analysis is based on a report prepared by Urban Crossroads, Inc. titled, "5355 East Airport Drive Greenhouse Gas Analysis," dated August 30, 2022 (Urban Crossroads, 2022d). The GHG analysis report (GHGA) is included as *Technical Appendix F* to this EIR. All references used in this subsection are listed in EIR Section 7.0, *References*.

### 4.6.1 EXISTING CONDITIONS

#### A. Introduction to Global Climate Change

GCC is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. Many scientists believe that the climate shift taking place since the Industrial Revolution is occurring at a quicker rate and magnitude than in the past. Scientific theory suggests that GCC is the result of increased concentrations of GHGs in the earth's atmosphere, including carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and fluorinated gases. Scientists believe that this increased rate of climate change is the result of GHGs resulting from human activity and industrialization over the past 200 years. (Urban Crossroads, 2022d, p. 16)

An individual project like the Project evaluated in this EIR cannot generate enough GHG emissions to affect a discernible change in global climate. However, the Project may participate in the potential for GCC by its incremental contribution of GHGs combined with the cumulative increase of all other sources of GHGs, which when taken together constitute potential influences on GCC. (Urban Crossroads, 2022d, p. 16)

#### B. Greenhouse Gases

CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O emissions are the focus of evaluation in this subsection because these gases are the primary contributors to GCC from development projects. Although there are other substances such as fluorinated gases that also contribute to GCC, these fluorinated gases were not evaluated as their sources are not well-defined and do not contain accepted emissions factors or methodology to accurately calculate these gases. (Urban Crossroads, 2022d, p. 16)

A global warming potential (GWP) value indicates the amount of warming a gas causes over a given period of time and represents the potential of a gas to trap heat in the atmosphere. Individual GHGs have varying GWP values, as assigned by the Intergovernmental Panel on Climate Change (IPCC). The atmospheric lifetime and GWP of selected GHGs are summarized in Table 4.6-1, *GWP and Atmospheric Lifetime of Select GHGs*. GWP values range from 1 for CO<sub>2</sub> up to 23,900 for Sulfur Hexafluoride (SF<sub>6</sub>). (Urban Crossroads, 2022d, p. 23)

Provided below is a description of the various gases that contribute to GCC. For more information about these gases and their associated human health effects, refer to Section 2.3 of *Technical Appendix F* and the references sources cited therein.





**Table 4.6-1 GWP and Atmospheric Lifetime of Select GHGs**

Gas	Atmospheric Lifetime (years)	GWP (100-year time horizon)	
		2 <sup>nd</sup> Assessment Report	5 <sup>th</sup> Assessment Report
CO <sub>2</sub>	See*	1	1
CH <sub>4</sub>	12.4	21	28
N <sub>2</sub> O	121	310	265
HFC-23	222	11,700	12,400
HFC-134a	13.4	1,300	1,300
HFC-152a	1.5	140	138
SF <sub>6</sub>	3,200	23,900	23,500

\*As per Appendix 8.A. of IPCC's 5<sup>th</sup> Assessment Report, no single lifetime can be given.

Adapted from Table 2.14 of the IPCC Fourth Assessment Report, 2007

(Urban Crossroads, 2022d, p. 23)

- Water Vapor (H<sub>2</sub>O)** is the most abundant, important, and variable GHG in the atmosphere. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to 'hold' more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop would continue is unknown as there are also dynamics that hold the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it would eventually condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the earth's surface and heat it up). There are no known direct health effects related to water vapor; however, certain pollutants can dissolve in water vapor and the water vapor can then act as a pollutant-carrying agent. (Urban Crossroads, 2022d, p. 17)
- Carbon Dioxide (CO<sub>2</sub>)** is an odorless and colorless GHG that is emitted from natural and man-made sources. Natural sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Since the industrial revolution began in the mid-1700s, the sort of human activity that increases GHG emissions has increased dramatically in scale and distribution. As an example, prior to the industrial revolution, CO<sub>2</sub> concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30%. Exposure to CO<sub>2</sub> in high concentrations can cause adverse human health effects, but



- outdoor (atmospheric levels) are not high enough to be detrimental to human health. (Urban Crossroads, 2022d, p. 18)
- **Methane (CH<sub>4</sub>)** is an extremely effective absorber of radiation, although its atmospheric concentration is less than CO<sub>2</sub> and its lifetime in the atmosphere is brief (10-12 years), compared to other GHGs. Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of CH<sub>4</sub>. Other man-made sources include fossil-fuel combustion and biomass burning. Exposure to elevated levels of CH<sub>4</sub> can cause asphyxiation, loss of consciousness, headache and dizziness, nausea and vomiting, weakness, loss of coordination, and an increased breathing rate. (Urban Crossroads, 2022d, p. 19)
  - **Nitrous Oxide (N<sub>2</sub>O)** concentrations began to rise at the beginning of the industrial revolution. N<sub>2</sub>O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. N<sub>2</sub>O can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses, it is considered harmless; however, in some cases, heavy and extended use can cause Olney's Lesions (brain damage). (Urban Crossroads, 2022d, p. 19)
  - **Chlorofluorocarbons (CFCs)** are gases formed synthetically by replacing all hydrogen atoms in CH<sub>4</sub> or ethane (C<sub>2</sub>H<sub>6</sub>) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs have no natural source but were first synthesized in 1928. They were used for refrigerants, aerosol propellants and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining steady or declining. However, their long atmospheric lifetimes mean that some of the CFCs would remain in the atmosphere for over 100 years. (Urban Crossroads, 2022d, p. 20)
  - **Hydrofluorocarbons (HFCs)** are synthetic, man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential. HFCs are manmade for applications such as automobile air conditioners and refrigerants. No health effects are known to result from exposure to HFCs. (Urban Crossroads, 2022d, p. 21)
  - **Perfluorocarbons (PFCs)** are primarily produced for aluminum production and semiconductor manufacture. PFCs have stable molecular structures and do not break down through chemical processes in the lower atmosphere. High-energy ultraviolet rays, which occur about 60 kilometers above earth's surface, are able to destroy the compounds. Because of this, PFCs have exceptionally long lifetimes, between 10,000 and 50,000 years.



No health effects are known to result from exposure to PFCs. (Urban Crossroads, 2022d, p. 21)

- **Sulfur Hexafluoride (SF<sub>6</sub>)** an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated (23,900). SF<sub>6</sub> is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection. In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing. (Urban Crossroads, 2022d, p. 21)
- **Nitrogen Trifluoride (NF<sub>3</sub>)** is a colorless gas with a distinctly moldy odor. NF<sub>3</sub> is used in industrial processes and is produced in the manufacturing of semiconductors, Liquid Crystal Display (LCD) panels, types of solar panels, and chemical lasers. Long-term or repeated exposure may affect the liver and kidneys and may cause fluorosis. (Urban Crossroads, 2022d, p. 22)

### **C. Greenhouse Gas Emissions Inventory**

#### ***1. Global and National***

Worldwide anthropogenic GHG emissions are tracked by the IPCC for industrialized nations (referred to as Annex I) and developing nations (referred to as Non-Annex I). Human GHG emissions data for Annex I nations are available through 2018. Based on the latest available data, the sum of these emissions totaled approximately 28,768,440 gigagram (Gg) CO<sub>2</sub>e (equivalent). The United States is the world's second-largest emitter of GHGs, producing 6,676,650 Gg of CO<sub>2</sub>e in 2018. (Urban Crossroads, 2022d, p. 23-24)

#### ***2. State of California***

California has significantly slowed the rate of growth of GHG emissions due to the implementation of energy efficiency programs as well as adoption of strict emission controls but is still a substantial contributor to the U.S. emissions inventory total. The California Air Resource Board (CARB) compiles GHG inventories for the State of California. Based upon the 2021 GHG inventory data (i.e., the latest year for which data are available) for the 2000-2019 GHG emissions period, California emitted an average 418.2 million metric tons of CO<sub>2</sub>e per year (MMT CO<sub>2</sub>e/yr) or 418,200 Gg CO<sub>2</sub>e (6.26% of the total United States GHG emissions). (Urban Crossroads, 2022d, p. 24)

#### ***3. Project Site***

The Project Site is currently occupied and operating as a grain processing company and a corn storage and distribution facility. Sources of existing GHG emissions on the Project Site include mobile source, area source, energy source, water usage, waste, and refrigerants. The estimated GHG emissions from existing uses on the Project Site is 1,645.77 metric tons of CO<sub>2</sub> equivalent (MTCO<sub>2</sub>e) (Urban Crossroads, 2022d, p. 49).



***D. Potential Effects of Climate Change in California***

***1. Public Health***

Higher temperatures may increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation could increase from 25 to 35% under the lower warming range to 75 to 85% under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances, depending on wind conditions. Based on *Our Changing Climate Assessing the Risks to California* by the California Climate Change Center, large wildfires could become up to 55% more frequent if GHG emissions are not significantly reduced. (Urban Crossroads, 2022d, p. 24)

In addition, under the higher warming range scenario, there could be up to 100 more days per year with temperatures above 90 degrees F in Los Angeles and 95 degrees F in Sacramento by 2100. This is a substantial increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures could increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat. (Urban Crossroads, 2022d, p. 24-25)

***2. Water Resources***

A vast network of man-made reservoirs and aqueducts captures and transports water throughout the state from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages. (Urban Crossroads, 2022d, p. 25)

If temperatures continue to increase, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90%. Under the lower warming range scenario, snowpack losses could be only half as large as those possible if temperatures were to rise to the higher warming range. How much snowpack could be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snowpack could pose challenges to water managers and hamper hydropower generation. (Urban Crossroads, 2022d, p. 25)

The State's water supplies are also at risk from rising sea levels. An influx of saltwater could degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta – a major fresh water supply. (Urban Crossroads, 2022d, p. 25)



### 3. *Agriculture*

Increased temperatures could cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. First, California farmers could possibly lose as much as 25% of the water supply needed. Although higher CO<sub>2</sub> levels can stimulate plant production and increase plant water-use efficiency, California's farmers could face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development could change, as could the intensity and frequency of pest and disease outbreaks. Rising temperatures could aggravate ozone pollution, which makes plants more susceptible to disease and pests and interferes with plant growth. Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures could worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits, and nuts. (Urban Crossroads, 2022d, p. 25)

In addition, continued GCC could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion could occur in many species while range contractions may be less likely in rapidly evolving species with significant populations already established. Should range contractions occur, new or different weed species could fill the emerging gaps. Continued GCC could alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates. (Urban Crossroads, 2022d, p. 26)

### 4. *Forest and Landscape Effects*

GCC has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55%, which is almost twice the increase expected if temperatures stay in the lower warming range. Since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks would not be uniform throughout the state. In contrast, wildfires in northern California could increase by up to 90% due to decreased precipitation. Moreover, continued GCC has the potential to alter natural ecosystems and biological diversity within the state. For example, alpine and subalpine ecosystems could decline by as much as 60 to 80% by the end of the century as a result of increasing temperatures. The productivity of the state's forests has the potential to decrease as a result of GCC. (Urban Crossroads, 2022d, p. 26)

### 5. *Rising Sea Levels*

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten the state's coastal regions. Under the higher warming range scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate low-lying coastal areas with saltwater, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. Under the lower warming range scenario, sea level could rise 12-14 inches. (Urban Crossroads, 2022d, p. 26)



#### 4.6.2 REGULATORY SETTING

The following is a brief description of the federal, state, and local environmental laws and related regulations related to GHG emissions.

##### ***A. International Plans, Policies, and Regulations***

###### ***1. Kyoto Protocol***

The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change, which commits its Parties by setting internationally binding emission reduction targets. Recognizing that developed countries are principally responsible for the current high levels of GHG emissions in the atmosphere as a result of more than 150 years of industrial activity, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities." (UNFCCC, n.d.)

The Kyoto Protocol was adopted in Kyoto, Japan, on December 11, 1997 and entered into force on February 16, 2005. The detailed rules for the implementation of the Protocol were adopted at Conference of the Parties (COP) 7 in Marrakesh, Morocco, in 2001, and are referred to as the "Marrakesh Accords." Its first commitment period started in 2008 and ended in 2012. (UNFCCC, n.d.)

On December 8, 2012, in Doha, Qatar, the "Doha Amendment to the Kyoto Protocol" was adopted. The amendment includes:

- New commitments for Annex I Parties to the Kyoto Protocol who agreed to take on commitments in a second commitment period from January 1, 2013 to December 31, 2020;
- A revised list of greenhouse gases (GHG) to be reported on by Parties in the second commitment period; and
- Amendments to several articles of the Kyoto Protocol which specifically referenced issues pertaining to the first commitment period and which needed to be updated for the second commitment period. (UNFCCC, n.d.)

On December 21, 2012, the amendment was circulated by the Secretary-General of the United Nations, acting in his capacity as Depositary, to all Parties to the Kyoto Protocol in accordance with Articles 20 and 21 of the Protocol. (UNFCCC, n.d.)

During the first commitment period, 37 industrialized countries and the European Community committed to reduce GHG emissions to an average of five percent against 1990 levels. During the second commitment period, Parties committed to reduce GHG emissions by at least 18 percent below 1990 levels in the eight-year period from 2013 to 2020; however, the composition of Parties in the second commitment period is different from the first. (UNFCCC, n.d.)

###### ***2. The Paris Agreement***

The Paris Agreement builds upon the Convention and – for the first time – brings all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects, with



enhanced support to assist developing countries to do so. As such, it charts a new course in the global climate effort. (UNFCCC, n.d.)

The Paris Agreement's central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. Additionally, the agreement aims to strengthen the ability of countries to deal with the impacts of climate change. To reach these ambitious goals, appropriate financial flows, a new technology framework and an enhanced capacity building framework will be put in place, thus supporting action by developing countries and the most vulnerable countries, in line with their own national objectives. The Agreement also provides for enhanced transparency of action and support through a more robust transparency framework. (UNFCCC, n.d.)

The Paris Agreement requires all Parties to put forward their best efforts through “nationally determined contributions” (NDCs) and to strengthen these efforts in the years ahead. This includes requirements that all Parties report regularly on their emissions and on their implementation efforts. (UNFCCC, n.d.)

In 2018, Parties will take stock of the collective efforts in relation to progress towards the goal set in the Paris Agreement and to inform the preparation of NDCs. There will also be a global stock-taking every five years to assess the collective progress towards achieving the purpose of the Agreement and to inform further individual actions by Parties. (UNFCCC, n.d.)

The Paris Agreement entered into force on November 4, 2016, thirty days after the date on which at least 55 Parties to the Convention accounting in total for at least an estimated 55% of the total global greenhouse gas emissions have deposited their instruments of ratification, acceptance, approval, or accession with the Depositary. (UNFCCC, n.d.)

On June 1, 2017, President Trump announced he would begin the process of withdrawing the United States from the Paris Agreement. In accordance with articles within the Paris Agreement, the earliest effective date for the United States' withdrawal from the Agreement was November 4, 2020, at which time the withdraw became official. On January 20, 2021, President Biden signed the executive order for the United States to rejoin the Paris Agreement, which became official on February 19, 2021.

## ***B. Federal Plans, Policies, and Regulations***

### ***1. Clean Air Act***

Coinciding with the 2009 meeting of international leaders in Copenhagen, on December 7, 2009, the EPA issued an Endangerment Finding under § 202(a) of the Clean Air Act (CAA), opening the door to federal regulation of GHGs. The Endangerment Finding notes that GHGs threaten public health and welfare and are subject to regulation under the CAA. To date, the EPA has not promulgated regulations on GHG emissions, but it has begun to develop them. (EPA, 2020a; DOJ, 2015)



Previously the EPA had not regulated GHGs under the CAA because it asserted that the Act did not authorize it to issue mandatory regulations to address Global Climate Change (GCC) and that such regulation would be unwise without an unequivocally established causal link between GHGs and the increase in global surface air temperatures. In *Massachusetts v. Environmental Protection Agency et al.* (127 S. Ct. 1438 [2007]); however, the U.S. Supreme Court held that GHGs are pollutants under the CAA and directed the EPA to decide whether the gases endangered public health or welfare. The EPA had also not moved aggressively to regulate GHGs because it expected Congress to make progress on GHG legislation, primarily from the standpoint of a cap-and-trade system. However, proposals circulated in both the House of Representative and Senate have been controversial and it may be some time before the U.S. Congress adopts major climate change legislation. The EPA's Endangerment Finding paves the way for federal regulation of GHGs with or without Congress. (EPA, 2020a; DOJ, 2015)

### ***C. State Plans, Policies, and Regulations***

#### ***1. Title 24 Building Energy Standards***

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods. The latest revisions (2019 Building Energy Efficiency Standards) became effective on January 1, 2020. The 2019 Building Energy Efficiency Standards are 7% more efficient than the previous (2016) Building Energy Efficiency Standards for residential construction and 30% more efficient than the previous Standards for non-residential construction. (The 2016 Building Energy Efficiency Standards already were 28% more efficient for residential construction and 5% more efficient for nonresidential construction than the 2013 Building Energy Efficiency Standards they replaced.) (CEC, 2018)

Part 11 of Title 24 is referred to as the California Green Building Standards Code (CALGreen Code). The purpose of the CALGreen Code is to “improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: 1) Planning and design; 2) Energy efficiency; 3) Water efficiency and conservation; 4) Material conservation and resource efficiency; and 5) Environmental air quality.” The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). Unless otherwise noted in the regulation, all newly constructed buildings in California are subject of the requirements of the CALGreen Code. (CEC, 2018)

As previously stated, the Title 24 Energy Efficiency Standards and CALGreen Code are updated on a regular basis, with the most recent approved updates consisting of the 2022 Energy Efficiency





Standards and 2022 CALGreen Code, which will become effective on January 1, 2023. Non-residential mandatory measures included in the 2022 CALGreen Code include:

- Short-term bicycle parking. If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1.1).
- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (5.106.4.1.2).
- Designated parking for clean air vehicles. In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2 (5.106.5.2).
- EV charging stations. New construction shall facilitate the future installation of EV supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load. The number of spaces to be provided for is contained in Table 5.106. 5.3.3 (5.106.5.3). Additionally, Table 5.106.5.4.1 specifies requirements for the installation of raceway conduit and panel power requirements for medium- and heavy-duty electric vehicle supply equipment for warehouses, grocery stores, and retail stores.
- Outdoor light pollution reduction. Outdoor lighting systems shall be designed to meet the backlight, upright and glare ratings per Table 5.106.8 (5.106.8).
- Construction waste management. Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.405.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent (5.408.1).
- Excavated soil and land clearing debris. 100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reuse or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed (5.408.3).
- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive (5.410.1).



- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
  - Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (5.303.3.1)
  - Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush (5.303.3.2.1). The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush (5.303.3.2.2).
  - Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi (5.303.3.3.1). When a shower is served by more than one showerhead, the combine flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (5.303.3.3.2).
  - Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi (5.303.3.4.1). Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi (5.303.3.4.2). Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute (5.303.3.4.3). Metering faucets shall not deliver more than 0.20 gallons per cycle (5.303.3.4.4). Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle (5.303.3.4.5).
- Outdoor potable water uses in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent (5.304.1).
- Water meters. Separate submeters or metering devices shall be installed for new buildings or additions in excess of 50,000 sf or for excess consumption where any tenant within a new building or within an addition that is project to consume more than 1,000 gallons per day (GPD) (5.303.1.1 and 5.303.1.2).
- Outdoor water uses in rehabilitated landscape projects equal or greater than 2,500 sf. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 sf requiring a building or landscape permit (5.304.3).
- Commissioning. For new buildings 10,000 sf and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (5.410.2).



**2. California Assembly Bill No. 1493 (AB 1493)**

AB 1493 required the CARB to adopt the nation's first GHG emission standards for automobiles. On September 24, 2009, CARB adopted amendments to the "Pavley" regulations that reduce GHG emissions in new passenger vehicles from model year 2009 through 2016. These amendments were part of California's commitment toward a nation-wide program to reduce new passenger vehicle GHGs from 2012 through 2016. CARB's September amendments cement California's enforcement of the Pavley rule starting in 2009 while providing vehicle manufacturers with new compliance flexibility. The amendments also prepare California to harmonize its rules with the federal rules for passenger vehicles. (CARB, n.d.)

The U.S. EPA granted California the authority to implement GHG emission reduction standards for new passenger cars, pickup trucks, and sport utility vehicles on June 30, 2009. The first California request to implement GHG standards for passenger vehicles, known as a waiver request, was made in December 2005, and was denied by the EPA in March 2008. That decision was based on a finding that California's request to reduce GHG emissions from passenger vehicles did not meet the CAA requirement of showing that the waiver was needed to meet "compelling and extraordinary conditions." (CARB, n.d.)

CARB's Board originally approved regulations to reduce GHGs from passenger vehicles in September 2004, with the regulations to take effect in 2009. These regulations were authorized by the 2002 legislation Assembly Bill 1493 (Pavley). (CARB, n.d.)

The regulations had been threatened by automaker lawsuits and were stalled by the EPA's delay in reviewing and then initially denying California's waiver request. The parties involved entered a May 19, 2009 agreement to resolve these issues. With the granting of the waiver on June 30, 2009, it is expected that the Pavley regulations reduced GHG emissions from California passenger vehicles by about 22% in 2012 and about 30% in 2016, all while improving fuel efficiency and reducing motorists' costs. (CARB, n.d.)

The CARB has adopted a new approach to passenger vehicles – cars and light trucks – by combining the control of smog-causing pollutants and greenhouse gas emissions into a single coordinated package of standards. The new approach also includes efforts to support and accelerate the numbers of plug-in hybrids and zero-emission vehicles in California. (CARB, n.d.)

**3. Executive Order S-3-05**

Executive Order (EO) S-3-05 documents GHG emission reduction goals, creates the Climate Action Team and directs the Secretary of the California EPA to coordinate efforts with meeting the GHG reduction targets with the heads of other state agencies. The EO requires the Secretary to report back to the Governor and Legislature biannually to report: progress toward meeting the GHG goals; GHG impacts to California; and applicable Mitigation and Adaptation Plans. EO S-3-05 goals for GHG emissions reductions include: reducing GHG emissions to 2000 levels by the year 2010; reducing GHG



emissions to 1990 levels by the year 2020; and reducing GHG emissions to 80 percent below 1990 levels by 2050. (CA State Library, 2005)

#### 4. *California Assembly Bill 32 – Global Warming Solutions Act of 2006*

In September 2006, Governor Schwarzenegger signed Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020, which represents a reduction of approximately 15 percent below emissions expected under a “business as usual” scenario. Pursuant to AB 32, the CARB must adopt regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. The full implementation of AB 32 will help mitigate risks associated with climate change, while improving energy efficiency, expanding the use of renewable energy resources, cleaner transportation, and reducing waste. (CARB, 2018)

AB 32 specifically required that CARB do the following: (CARB, 2018)

- Prepare and approve a Scoping Plan for achieving the maximum technologically feasible and cost-effective reductions in GHG emissions from sources or categories of sources of GHGs by 2020, and update the Scoping Plan every five years.
- Maintain and continue reductions in emissions of GHG beyond 2020.
- Identify the statewide level of GHG emissions in 1990 to serve as the emissions limit to be achieved by 2020.
- Identify and adopt regulations for discrete early actions that could be enforceable on or before January 1, 2010.
- Adopt a regulation that establishes a system of market-based declining annual aggregate emission limits for sources or categories of sources that emit GHG emissions.
- Convene an Environmental Justice Advisory Committee to advise the Board in developing and updating the Scoping Plan and any other pertinent matter in implementing AB 32.
- Appoint an Economic and Technology Advancement Advisory Committee to provide recommendations for technologies, research, and GHG emission reduction measures.

#### 5. *CARB's 2017 Scoping Plan*

In November 2007, CARB completed its estimated calculations of Statewide 1990 GHG levels. Net emission 1990 levels were estimated at 427 million metric tons (MMTs) (emission sources by sector were: transportation – 35%; electricity generation – 26%; industrial – 24%; residential – 7%; agriculture – 5%; and commercial – 3%). Accordingly, 427 million metric tons of carbon dioxide equivalent (MMT<sub>CO<sub>2</sub>e</sub>) equivalent was established as the emissions limit for 2020. For comparison, CARB’s estimate for baseline GHG emissions was 473 MMT<sub>CO<sub>2</sub>e</sub> for 2000 and without emissions reduction measures 2010 emissions were projected to be 532 MMT<sub>CO<sub>2</sub>e</sub>. “Business as usual” conditions (without the reductions to be implemented by CARB regulations) for 2020 were projected to be 596 MMT<sub>CO<sub>2</sub>e</sub>. (CARB, 2007)

AB 32 required CARB to develop a Scoping Plan which lays out California’s strategy for meeting the goals. The Scoping Plan must be updated every 5 years. In December 2008, CARB approved the initial



Scoping Plan, which included a suite of measures to sharply cut GHG emissions. Table 4.6-2, *Scoping Plan GHG Reduction Measures Towards 2020 Target*, shows the proposed reductions from regulations and programs outlined in the Scoping Plan. While local government operations were not accounted for in achieving the Year 2020 emissions reduction, local land use changes are estimated to result in a reduction of 5 MMTCO<sub>2e</sub>, which is approximately 3% of the 2020 GHG emissions reduction goal. In recognition of the critical role local governments will play in successful implementation of AB 32, CARB is recommending GHG reduction goals of 15% of 2006 levels by 2020 to ensure that municipal and community-wide emissions match the State's reduction target. According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2% through land use planning, resulting in a potential GHG reduction of 2 MMTCO<sub>2e</sub> (or approximately 1.2% of the GHG reduction target). (CARB, 2018)

Overall, CARB determined that achieving the 1990 emission level in 2020 would require a reduction in GHG emissions of approximately 28.5% in the absence of new laws and regulations (referred to as "Business-As-Usual" [BAU]). The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and Climate Action Team (CAT) early actions and additional GHG reduction measures, identifies additional measures to be pursued as regulations, and outlines the role of the cap-and-trade program.



Table 4.6-2 Scoping Plan GHG Reduction Measures Towards 2020 Target

<i>Recommended Reduction Measures</i>	<i>Reductions Counted toward 2020 Target of 169 MMT CO<sub>2</sub>e</i>	<i>Percentage of Statewide 2020 Target</i>
<b>Cap and Trade Program and Associated Measures</b>		
California Light-Duty Vehicle GHG Standards	31.7	19%
Energy Efficiency	26.3	16%
Renewable Portfolio Standard (33 percent by 2020)	21.3	13%
Low Carbon Fuel Standard	15	9%
Regional Transportation-Related GHG Targets <sup>1</sup>	5	3%
Vehicle Efficiency Measures	4.5	3%
Goods Movement	3.7	2%
Million Solar Roofs	2.1	1%
Medium/Heavy Duty Vehicles	1.4	1%
High Speed Rail	1.0	1%
Industrial Measures	0.3	0%
Additional Reduction Necessary to Achieve Cap	34.4	20%
<b>Total Cap and Trade Program Reductions</b>	<b>146.7</b>	<b>87%</b>
<b>Uncapped Sources/Sectors Measures</b>		
High Global Warming Potential Gas Measures	20.2	12%
Sustainable Forests	5	3%
Industrial Measures (for sources not covered under cap and trade program)	1.1	1%
Recycling and Waste (landfill methane capture)	1	1%
<b>Total Uncapped Sources/Sectors Reductions</b>	<b>27.3</b>	<b>16%</b>
<b>Total Reductions Counted toward 2020 Target</b>	<b>174</b>	<b>100%</b>
<b>Other Recommended Measures – Not Counted toward 2020 Target</b>		
State Government Operations	1.0 to 2.0	1%
Local Government Operations	To Be Determined <sup>2</sup>	NA
Green Buildings	26	15%
Recycling and Waste	9	5%
Water Sector Measures	4.8	3%
Methane Capture at Large Dairies	1	1%
<b>Total Other Recommended Measures – Not Counted toward 2020 Target</b>	<b>42.8</b>	<b>NA</b>

Source: CARB. 2008, MMTons CO<sub>2</sub>e: million metric tons of CO<sub>2</sub>e

<sup>1</sup>Reductions represent an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target.

<sup>2</sup>According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 million metric tons of CO<sub>2</sub>e (or approximately 1.2 percent of the GHG reduction target). However, these reductions were not included in the Scoping Plan reductions to achieve the 2020 Target

When the 2020 emissions level projection also was updated to account for implemented regulatory measures, including Pavley (vehicle model-years 2009 - 2016) and the renewable portfolio standard (12% - 20%), the 2020 projection in the BAU condition was reduced further to 507 metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>e). As a result, based on the updated economic and regulatory data, CARB determined that achieving the 1990 emissions level in 2020 would now only require a reduction



of GHG emissions of 80 MTCO<sub>2e</sub>, or approximately 16 percent (down from 28.5%), from the BAU condition.

In May 2014, CARB approved the First Update to the Climate Change Scoping Plan (Update), which builds upon the initial Scoping Plan with new strategies and recommendations. The Update highlights California's progress toward meeting the near-term 2020 GHG emission reduction goals, highlights the latest climate change science and provides direction on how to achieve long-term emission reduction goal described in Executive Order S-3-05. The Update recalculates 1990 GHG emissions using new global warming potentials identified in the IPCC Fourth Assessment Report released in 2007. Using those Global Warming Potentials (GWPs), the 427 MTCO<sub>2e</sub> 1990 emissions level and 2020 GHG emissions limit identified in the 2008 Scoping Plan would be slightly higher, at 431 MTCO<sub>2e</sub>. Based on the revised 2020 emissions level projection identified in the 2011 Final Supplement and the updated 1990 emissions levels identified in the discussion draft of the First Update, achieving the 1990 emissions level in 2020 would require a reduction of 78 MTCO<sub>2e</sub> (down from 509 MTCO<sub>2e</sub>), or approximately 15.3% (down from 28.5%), from the BAU condition. (CARB, 2018; CARB, 2017)

In January 2017, CARB released the draft Second Update to the Scoping Plan, which identifies the State's post-2020 reduction strategy. The Second Update would reflect the 2030 target of a 40% reduction below 1990 levels, set by Senate Bill (SB) 32. Key GHG emissions reductions programs that the draft Second Update proposes to build upon include the Cap-and-Trade Regulation, the Low Carbon Fuel Standard, and much cleaner cars, trucks and freight movement, utilizing cleaner, renewable energy, and strategies to reduce methane emissions from agricultural and other wastes. The 2017 Scoping Plan Update was finalized in November 2017 and approved by the CARB on December 14, 2017. (CARB, 2017)

#### **6. CARB's 2022 Scoping Plan**

On December 15, 2022, CARB adopted the 2022 Scoping Plan for Achieving Carbon Neutrality. The 2022 Scoping Plan builds on the 2017 Scoping Plan as well as the requirements set forth by AB 1279, which directs the State to become carbon neutral no later than 2045. To achieve this statutory objective, the 2022 Scoping Plan lays out how California can reduce GHG emissions by 85% below 1990 levels and achieve carbon neutrality by 2045. The Scoping Plan scenario to do this is to “deploy a broad portfolio of existing and emerging fossil fuel alternatives and clean technologies, and align with statutes, Executive Orders, Board direction, and direction from the governor.” The 2022 Scoping Plan sets one of the most aggressive approaches to reach carbon neutrality in the world. Unlike the 2017 Scoping Plan, CARB no longer includes a numeric per capita threshold and instead advocates for compliance with a local GHG reduction strategy (CAP) consistent with CEQA Guidelines Section 15183.5. (CARB, 2022a)

The key elements of the 2022 CARB Scoping Plan focus on transportation - the regulations that will impact this sector are adopted and enforced by CARB on vehicle manufacturers and outside the jurisdiction and control of local governments. As stated in the Plan's executive summary: “The major element of this unprecedented transformation is the aggressive reduction of fossil fuels wherever they



are currently used in California, building on and accelerating carbon reduction programs that have been in place for a decade and a half. That means rapidly moving to zero-emission transportation; electrifying the cars, buses, trains, and trucks that now constitute California’s single largest source of planet-warming pollution.” “[A]pproval of this plan catalyzes a number of efforts, including the development of new regulations as well as amendments to strengthen regulations and programs already in place, not just at CARB but across state agencies.” (CARB, 2022a)

Included in the 2022 Scoping Plan is a set of Local Actions (Appendix D to the 2022 Scoping Plan) aimed at providing local jurisdictions with tools to reduce GHGs and assist the State in meeting the ambitious targets set forth in the 2022 Scoping Plan. Appendix D to the 2022 Scoping Plan includes a section on evaluating plan-level and project-level alignment with the State’s Climate Goals in CEQA GHG analyses. In this section, CARB identifies several recommendations and strategies that should be considered for new development in order to determine consistency with the 2022 Scoping Plan. Notably, this section is focused on Residential and Mixed-Use Projects, in fact CARB states in Appendix D (page 4): “...focuses primarily on climate action plans (CAPs) and local authority over new residential development. It does not address other land use types (e.g., industrial) or air permitting.” (CARB, 2022b)

#### **7. California Senate Bill No. 1368 (SB 1368)**

In 2006, the State Legislature adopted Senate Bill (SB) 1368 (Perata, Chapter 598, Statutes of 2006), which directs the California Public Utilities Commission (CPUC) to adopt a GHG emission performance standard (EPS) for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than five years from resources that exceed specified emissions criteria. Accordingly, SB 1368 effectively prevents California’s utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. SB 1368 will lead to dramatically lower GHG emissions associated with California energy demand. (CEC, n.d.)

#### **8. Executive Order S-01-07**

Executive Order (EO) S-01-07 is effectively known as the Low Carbon Fuel Standard (LCFS). The Executive Order seeks to reduce the carbon intensity of California’s passenger vehicle fuels by at least 10% by 2020. The LCFS requires fuel providers in California to ensure that the mix of fuel they sell into the California market meet, on average, a declining standard for GHG emissions measured in CO<sub>2</sub>e grams per unit of fuel energy sold. (CA State Library, 2007)

#### **9. Senate Bill 1078**

Senate Bill (SB) 1078 establishes the California Renewables Portfolio Standard Program, which required electric utilities and other entities under the jurisdiction of the California Public Utilities Commission to meet 20% of their renewable power by December 31, 2017 for the purposes of increasing the diversity, reliability, public health, and environmental benefits of the energy mix. (CA Legislative Info, n.d.)





**10. Senate Bill 107**

SB 107 directed California Public Utilities Commission's Renewable Energy Resources Program to increase the amount of renewable electricity (Renewable Portfolio Standard) generated per year, from 17% to an amount that equals at least 20% of the total electricity sold to retail customers in California per year by December 31, 2010. (CA Legislative Info, n.d.)

**11. Executive Order S-14-08**

On November 17, 2008, Governor Schwarzenegger signed Executive Order S-14-08, revising California's existing Renewable Portfolio Standard (RPS) upward to require all retail sellers of electricity to serve 33% of their load from renewable energy sources by 2020. In order to meet this new goal, a substantial increase in the development of wind, solar, geothermal, and other "RPS eligible" energy projects will be needed. Executive Order S-14-08 seeks to accelerate such development by streamlining the siting, permitting, and procurement processes for renewable energy generation facilities. To this end, S-14-08 issues two directives: 1) the existing Renewable Energy Transmission Initiative will identify renewable energy zones that can be developed as such with little environmental impact, and 2) the California Energy Commission (CEC) and the California Department of Fish and Wildlife (CDFW) will collaborate to expedite the review, permitting, and licensing process for proposed RPS-eligible renewable energy projects. (CA State Library, 2008)

**12. Senate Bill 97**

By enacting SB 97 in 2007, California's lawmakers expressly recognized the need to analyze GHGs as a part of the CEQA process. SB 97 required the Governor's Office of Planning and Research (OPR) to develop, and the Natural Resources Agency to adopt, amendments to the CEQA Guidelines addressing the analysis and mitigation of greenhouse gas emissions. Those CEQA Guidelines amendments clarified several points, including the following: (CA Legislative Info, n.d.)

- Lead agencies must analyze the GHG emissions of proposed projects, and must reach a conclusion regarding the significance of those emissions. (See CEQA Guidelines § 15064.4.)
- When a project's GHG emissions may be significant, lead agencies must consider a range of potential mitigation measures to reduce those emissions. (See CEQA Guidelines § 15126.4(c).)
- Lead agencies must analyze potentially significant impacts associated with placing projects in hazardous locations, including locations potentially affected by climate change. (See CEQA Guidelines § 15126.2(a).)
- Lead agencies may significantly streamline the analysis of GHGs on a project level by using a programmatic GHG emissions reduction plan meeting certain criteria. (See CEQA Guidelines § 15183.5(b).)
- CEQA mandates analysis of a proposed project's potential energy use (including transportation-related energy), sources of energy supply, and ways to reduce energy demand, including through the use of efficient transportation alternatives. (See CEQA Guidelines, Appendix F.)

As part of the administrative rulemaking process, the Natural Resources Agency developed a Final Statement of Reasons explaining the legal and factual bases, intent, and purpose of the CEQA



Guidelines amendments. The amendments to the CEQA Guidelines implementing SB 97 became effective on March 18, 2010. (CA Legislative Info, n.d.)

Of note, the new guidelines state that a lead agency shall have discretion to determine whether to use a quantitative model or methodology, or in the alternative, rely on a qualitative analysis or performance-based standards. Pursuant to CEQA Guidelines § 15064.4(a), “A lead agency shall have discretion to determine, in the context of a particular project, whether to: 1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use; or 2) Rely on a qualitative analysis or performance-based standards.” (CA Legislative Info, n.d.)

CEQA emphasizes that the effects of greenhouse gas emissions are cumulative, and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis. (See CEQA Guidelines § 15130(f)).

§ 15064.4(b) of the guidelines provides direction for lead agencies for assessing the significance of impacts of greenhouse gas emissions:

1. The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; or
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

The CEQA Guideline amendments do not identify a threshold of significance for GHG emissions, nor do they prescribe assessment methodologies or specific mitigation measures. Instead, they call for a “good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project.” The amendments encourage lead agencies to consider many factors in performing a CEQA analysis and preserve lead agencies' discretion to make their own determinations based upon substantial evidence. The amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses.

### 13. *Senate Bill 375*

The Sustainable Communities and Climate Protection Act of 2008 (Sustainable Communities Act, SB 375, Chapter 728, Statutes of 2008) supports the State's climate action goals to reduce greenhouse gas



(GHG) emissions through coordinated transportation and land use planning with the goal of more sustainable communities. (CARB, n.d.)

Under the Sustainable Communities Act, CARB sets regional targets for GHG emissions reductions from passenger vehicle use. In 2010, CARB established these targets for 2020 and 2035 for each region covered by one of the State's metropolitan planning organizations (MPO). CARB will periodically review and update the targets, as needed. (CARB, n.d.)

Each of California's MPOs must prepare a "sustainable communities strategy" (SCS) as an integral part of its regional transportation plan (RTP). The SCS contains land use, housing, and transportation strategies that, if implemented, would allow the region to meet its GHG emission reduction targets. Once adopted by the MPO, the RTP/SCS guides the transportation policies and investments for the region. CARB must review the adopted SCS to confirm and accept the MPO's determination that the SCS, if implemented, would meet the regional GHG targets. If the combination of measures in the SCS would not meet the regional targets, the MPO must prepare a separate "alternative planning strategy" (APS) to meet the targets. The APS is not a part of the RTP. (CARB, n.d.)

The Sustainable Communities Act also establishes incentives to encourage local governments and developers to implement the SCS or the APS. Developers can get relief from certain environmental review requirements under CEQA if their new residential and mixed-use projects are consistent with a region's SCS (or APS) that meets the targets (see Cal. Public Resources Code §§ 21155, 21155.1, 21155.2, 21159.28.). (CARB, n.d.)

#### **14. *Executive Order B-30-15***

On April 29, 2015, Governor Brown issued Executive Order B-30-15, which sets a goal to reduce GHG emissions in California to 40 percent below 1990 levels by 2030. The 2030 target serves as a benchmark goal on the way to achieving the GHG reductions goal set by former Governor Schwarzenegger via Executive Order S-3-05 (i.e., 80% below 1990 greenhouse gas emissions levels by 2050). (CA State Library, 2015)

#### **15. *Senate Bill 32***

On September 8, 2016, Governor Brown signed the Senate Bill (SB) 32 and its companion bill, Assembly Bill (AB) 197. SB 32 requires the state to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15. The new legislation builds upon the AB 32 goal of 1990 levels by 2020 and provides an intermediate goal to achieving S-3-05, which sets a statewide greenhouse gas reduction target of 80% below 1990 levels by 2050. (CA Legislative Info, n.d.)



***D. Local Plans, Policies, and Regulations***

***1. City of Ontario Community Climate Action Plan***

The Community Climate Action Plan (CCAP) contains further guidance on the City of Ontario's GHG Inventory reduction goals, policies, guidelines, and implementation programs. The purpose of the CCAP is to provide guidance on how to analyze GHG emissions and determine significance during the CEQA review of proposed development projects within the City of Ontario. The CCAP builds upon the Reduction Plan to address City-specific information and City-specific GHG reduction measures. To address the state's requirement to reduce GHG emissions, the CCAP was prepared with the goal of reducing GHG emissions within the City by 15% below 2008 levels by the year 2020. The City's target is consistent with the AB 32 target and ensures that the City of Ontario achieves GHG reductions locally that complement and are consistent with state efforts to reduce GHG emissions.

As part of the CCAP, the City of Ontario published a guidance document titled "Greenhouse Gas Emissions, CEQA Thresholds and Screening Tables" (December 2014). As part of this guidance, the CCAP determined that if GHG emissions of a given project exceeds 3,000 MTCO<sub>2</sub>e/yr, then project emissions would need to be reduced by 25% when compared to year 2008 emissions levels. Alternatively, the project would need to achieve a minimum of 100 points pursuant to measures identified in the Screening Tables.

The 2022 update to the Ontario Plan includes an update to the City's CCAP which was originally adopted on December 16, 2014. As stated in The Ontario Plan 2050 Draft Supplemental Environmental Impact Report (SEIR), the measures included in the 2022 update to the CCAP are not substantially different than that of the 2014 CCAP and therefore there is no change in the environmental impacts associated with the CCAP. As such, it is appropriate for the proposed Project to rely on the CEQA Thresholds and Screening Tables that were adopted under the 2014 CCAP, since the 2022 update to the CCAP does not contain measures that would be substantially different than the 2014 CCAP.

**4.6.3 BASIS FOR DETERMINING SIGNIFICANCE**

In order to assess the significance of a proposed Project's environmental impacts it is necessary to identify quantitative or qualitative thresholds which, if exceeded, would constitute a finding of significance. While estimated Project-related GHG emissions can be quantified, the direct impacts of such emissions on GCC and global warming cannot be determined on the basis of available science. There is no evidence at this time that would indicate that the emissions from a project the size of the proposed Project would directly or indirectly affect the global climate given the small size of the Project compared to the cumulative size and scale of all sources of GHG across the globe.

AB 32 states, in part, that "[g]lobal warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California." Because global warming is the result of GHG emissions, and GHGs are emitted by innumerable sources worldwide, the proposed Project would have no potential to result in a direct impact to global warming; rather, Project-related contributions to GCC, if any, only have potential significance on a cumulative basis. Therefore, the



analysis below focuses on the Project’s potential to contribute to GCC in a cumulatively considerable way.

Section VII of Appendix G to the CEQA Guidelines indicate that a project would result in a significant impact on climate change if a project were to (OPR, 2019):

- a. *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment;*
- b. *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

**4.6.4 IMPACT ANALYSIS**

***Threshold a: Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?***

As previously stated, SEIR prepared for The Ontario Plan 2050 identifies that the measures included in the 2022 update to the CCAP are not substantially different than that of the 2014 CCAP and therefore there is no change in the environmental impacts associated with the CCAP. As such, and consistent with the 2014 CCAP, this analysis relies on the annual screening threshold of 3,000 MTCO<sub>2</sub>e/yr to define small projects that are considered less than significant and do not require further GHG emissions calculations or analysis. Projects that do not exceed an annual 3,000 MTCO<sub>2</sub>e/yr are therefore considered less than significant and would not require further analysis or mitigation. (Urban Crossroads, 2022d, p. 51)

The annual GHG emissions associated with the operation of the proposed Project are summarized in Table 4.6-3, *Project GHG Emissions*. As shown, construction and operation of the Project would generate a total of approximately 4,236.54 MTCO<sub>2</sub>e/yr. GHG emissions from existing land uses on the Project Site were subtracted from the Project’s gross emissions to determine the net (or new) emissions attributed to the Project. Construction and operation of the Project less emissions from the existing on-site uses would result a net total of new GHG emissions of approximately 2,590.77 MTCO<sub>2</sub>e/yr, which would fall below the significance threshold of 3,000 MTCO<sub>2</sub>e/yr; therefore, Project-related GHG emissions are considered less than significant. (Urban Crossroads, 2022d, p. 59)

**Table 4.6-3 Project GHG Emissions**

Emission Source	Emissions (MT/yr)				
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Refrigerants	Total CO <sub>2</sub> e
Annual construction-related emissions amortized over 30 years	30.43	6.67E-04	3.33E-04	0.01	30.77
Mobile Source	1,536.00	0.11	0.18	2.15	1,596.00
Area Source	5.48	0.00	0.00	0.00	5.64



Emission Source	Emissions (MT/yr)				
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Refrigerants	Total CO <sub>2</sub> e
Energy Source	847.00	0.08	0.00	0.00	850.00
Water Usage	88.10	2.04	0.05	0.00	154.00
Waste	22.70	2.27	0.00	0.00	79.30
Refrigerants	0.00	0.00	0.00	1,078.00	1,078.00
TRU Source					156.68
On-Site Equipment					286.15
<b>Total CO<sub>2</sub>e (All Sources)</b>	<b>4,236.54</b>				
<i>Subtraction of Emissions from Existing Land Uses</i>	<i>-1,645.77</i>				
<b>Total Net CO<sub>2</sub>e (All Sources)</b>	<b>2,590.77</b>				

(Urban Crossroads, 2022d, p. 58)

***Threshold b: Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?***

The Project’s consistency with the City’s CCAP, AB 32 and SB 32 are discussed below. It should be noted that the Project’s consistency with the SB 32 (2017 Scoping Plan) also satisfies consistency with AB 32 since the 2017 Scoping Plan is based on the overall targets established by AB 32. Consistency with the 2008 Scoping Plan is not necessary, since the target year for the 2008 Scoping Plan was 2020, and the Project’s buildout year is 2024. As such the 2008 Scoping Plan does not apply and consistency with the 2017 Scoping Plan is relevant. (Urban Crossroads, 2022d, p. 59)

Since the Project does not exceed the established annual screening threshold of 3,000 MTCO<sub>2</sub>e/yr, the Project is considered less than significant, does not require further GHG emissions calculations or analysis, and is presumed to be consistent with the City’s CCAP. (Urban Crossroads, 2022d, p. 59)

In April 2015, Governor Brown signed EO B-30-15, which advocated for a statewide GHG-reduction target of 40 percent below year 1990 levels by 2030 and 80 percent below 1990 levels by 2050. In September 2016, Governor Brown signed the SB 32. SB 32 formally established a statewide goal to reduce GHG emissions to 40 percent below year 1990 levels by 2030. To date, no statutes or regulations have been adopted to translate the year 2050 GHG reduction goal into comparable, scientifically-based statewide emission reduction targets.

CARB prepared the 2017 Scoping Plan Update to identify the measures that would achieve the emissions reduction goals of SB 32 (and, thus, also would achieve the emissions reductions goals of AB 32). Research conducted by the Lawrence Berkeley National Laboratory confirmed that California, under its existing GHG reduction policy framework (i.e., Scoping Plan Update), is on track to meet the year 2030 reduction targets established by the SB 32 (Urban Crossroads, 2022d, p. 37). As explained



in point-by-point detail in Table 4-7 of the Project's GHGA (Refer to *Technical Appendix F*), the Project would not conflict with applicable measures of the 2017 Scoping Plan Update and, therefore, would not interfere with the State's ability to achieve the year GHG-reduction targets established by AB 32 and SB32. Further, recent studies show that the State's existing and proposed regulatory framework will allow the State to reduce its GHG emissions level to 40% below 1990 levels by 2030 (Urban Crossroads, 2022d, p. 59-64)

In relation to CARB's 2022 Scoping Plan, the Project would not impede the State's progress towards carbon neutrality by 2045 under the 2022 Scoping Plan. The Project would be required to comply with applicable current and future regulatory requirements promulgated through the 2022 Scoping Plan. Some of the current transportation sector policies that the Project would comply with (through vehicle manufacturer compliance) include: Advanced Clean Cars II, Advanced Clean Trucks, Advanced Clean Fleets, Zero Emission Forklifts, the Off-Road Zero-Emission Targeted Manufacturer rule, Clean Off-Road Fleet Recognition Program, In-use Off-Road Diesel-Fueled Fleets Regulation, Off-Road Zero-Emission Targeted Manufacturer rule, Clean Off-Road Fleet Recognition Program, Amendments to the In-use Off-Road Diesel-Fueled Fleets Regulation, carbon pricing through the Cap-and-Trade Program, and the Low Carbon Fuel Standard. Further, the Project would be required to comply with applicable elements outlined in the City's CAP. As such, the Project would not be inconsistent with the 2022 Scoping Plan.

As described on the preceding pages, implementation of the Project would not conflict with the State's ability to achieve the State-wide GHG reduction mandates and would be consistent with applicable policies and plans related to GHG emissions reductions. Implementation of the Project would not actively interfere with any future federally-, State-, or locally-mandated retrofit obligations (such as requirements to use new technologies such as diesel particulate filters, emissions upgrades to a higher tier equipment, etc.) enacted or promulgated to legally require development projects to assist in meeting State-adopted GHG emissions reduction targets, including those established under EO S-3-05, EO B-30-15, or SB32. Therefore, the Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs and would result in a less-than-significant impact.

#### 4.6.5 CUMULATIVE IMPACT ANALYSIS

GCC occurs as the result of global emissions of GHGs. An individual development project does not have the potential to result in direct and significant GCC-related effects in the absence of cumulative sources of GHGs. The CEQA Guidelines emphasize that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis (See CEQA Guidelines Section 15130[f]). Accordingly, the analysis provided in subsection 4.6.4 reflects a cumulative impact analysis of the effects related to the Project's GHG emissions, which concludes that the Project would not exceed the applicable threshold of significance and that the Project would not conflict with an applicable GHG-reduction plans, policies, or regulations.



#### 4.6.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold a: Less-than-Significant Impact. The Project would not exceed the significance threshold of 3,000 MTCO<sub>2e</sub> per year. As such, the Project would generate a less-than-significant volume of GHG emissions and would not have a significant impact on the environment.

Threshold b: Less-than-Significant Impact. The Project would be consistent with or otherwise would not conflict with, applicable regulations policies, plans, and policy goals that would further reduce GHG emissions.

#### 4.6.7 MITIGATION

Impacts related to the Project's GHG emissions would be less than significant; therefore, mitigation measures are not required.





## 4.7 HAZARDS AND HAZARDOUS MATERIALS

This information and analysis presented in this Subsection is based in part on the technical study titled Phase I/Phase II Environmental Site Assessment Report (Phase I/II ESA), dated March 31, 2022, that was prepared by Farallon Consulting, L.L.C. (referenced herein as “Farallon”) to determine the presence or absence of hazardous materials on the Project Site under existing conditions. The report is provided as *Technical Appendix G* to this EIR. This Subsection also relies on information from the City’s Policy Plan (Ontario, 2022a); The Ontario Plan 2050 SEIR (Ontario, 2022b); Cal Fire – Fire Hazard Severity Zone Map (CAL FIRE, 2008); and Google Earth (Google Earth, 2022). All references used in this Subsection are listed in EIR Section 7.0, *References*.

In this EIR, the term “toxic substance” is defined as a substance that, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may present an unreasonable risk of injury to human health or the environment. Toxic substances include chemical, biological, flammable, explosive, and radioactive substances.

In this EIR, the term “hazardous material” is defined as a substance that, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may: 1) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, disposed of, or otherwise mismanaged; or 2) cause or contribute to an increase in mortality or an increase in irreversible or incapacitating illness.

Hazardous waste is defined in the California Code of Regulations, Title 22, Section 66261.3. The defining characteristics of hazardous waste are: ignitability (oxidizers, compressed gases, and extremely flammable liquids and solids), corrosivity (strong acids and bases), reactivity (explosives or generates toxic fumes when exposed to air or water), and toxicity (materials listed by the U.S. Environmental Protection Agency (EPA) as capable of inducing systemic damage to humans or animals). Certain wastes are called “Listed Wastes” and are found in the California Code of Regulations, Title 22, Sections 66261.30 through 66261.35. Wastes appear on the lists because of their known hazardous nature or because the processes that generate them are known to produce hazardous wastes (which are often complex mixtures).

### 4.7.1 EXISTING CONDITIONS

Under existing conditions, the Project Site is developed with a grain processing company (Verhoeven) and a corn storage and distribution facility (The Scoular Company). The eastern portion of the Project Site contains grain storage silos, grain mill area, and five buildings that are used for maintenance and repair, grain storage, and service shop. An office and warehouse building, referred to as “Building A,” is located on the southern portion of the Site. The warehouse portion on the northeastern side of Building A contains a service shop for repairing machinery related to the grain mill. Wastes stored in this area include motor oil, hydraulic oil, and gear oil, primarily related to tractor and forklift operation. A maintenance and repair shop, referred to as “Building B,” is present on the eastern portion of the Site, and is used for light tractor and forklift service. New and waste vehicle fluids are stored in a hazardous substance storage area on the southwestern interior border of Building B. Additional



structures on the eastern parcel consist of a warehouse referred to as “Building C” on the north-central portion, used for assorted storage; and two grain storage structures on the southeastern and southwestern portions of the parcel, referred to as “Buildings D and E.”

The western portion of the Project Site contains enclosed grain storage, with an office trailer. A vehicle wash-down area is also present on the northeastern portion of the Site, and three known septic systems are located beneath the Site: two on the eastern parcel, and one on the western parcel (Farallon, 2022, pp. 2-1). An additional septic system may be located beneath the eastern parcel, which is suspected to be present but not confirmed and cannot be confirmed until subsurface ground disturbance commences as part of the Project’s demolition and grading operation.

## ***A. Historical Review, Regulatory Records Review, and Field Reconnaissance***

### ***1. Review of Historical Records***

Farallon reviewed various sources of information to determine past uses of the Project Site, including historical aerial photographs, historical topographic maps, Environmental Data Resources (EDR) collection of regulatory database records, city directories, historical site occupants, and historical site ownership records. Refer to the Project’s Phase I/II ESA (refer to *Technical Appendix G*) for a detailed accounting of Farallon’s research procedure.

Topographic maps between 1897 and 1903 did not include much detail regarding the Project Site. The Project Site was used as agricultural or grazing land from at least the late 1930s to the early 1970s. By 1973, the eastern parcel was developed with small grain storage silos and other features associated with milling operations in the grain mill area. In the 1975 aerial photograph, grain appeared to be stockpiled in the southwestern portion of the Project Site in Buildings A through C. By 1985, the grain storage structures, Buildings D and E, were developed. By 2002, the Project Site appeared in its existing configuration. The 2002 aerial photograph shows grain processing operations had expanded to the western parcel, which included the development of three large grain storage silos. The Project Site has been occupied by Verhoeven from 1973 to the present; Chino Grain and Milling, Inc. in 1985; Coast Grain Company between 1990 and 2003; Scoular between 2004 and the present; and JD Heiskell and Company in 2009 (Farallon, 2022, pp. 5-1).

### ***2. Regulatory Records Review***

Farallon researched federal, State, and local environmental records databases to identify properties with reported environmental issues. A summary of the research results is provided below; the detailed listings of the specific hazardous materials databases the Project Site appears on is provided in Section 6.0 of the Project’s Phase I/II ESA.

- JD Heiskell Holdings LLC, former occupant of the Site, was identified on HAZNET, Hazardous Waste Tracking System (HWTS), California Facility Inventory Database (CA FID) Underground Storage Tank (UST), Emissions Inventory Data (EMI), California Integrated Water Quality System (CIWQS), California Environmental Reporting System



(CERS), and Waste Data System (WDS) databases. The listings relate to hazardous material management, air quality permits, records of USTs, and industrial stormwater permits associated with livestock feed manufacturing operations. Hazardous wastes listed as being disposed of between 2003 and 2010 consisted of waste oil and mixed oil, aqueous solution with total organic residues less than 10 percent, other organic solvents, and asbestos-containing waste. No violations were identified in the listings. The listings for the USTs did not provide new information regarding contents, locations, and removal dates of the first-generation USTs.

- George Verhoeven Grain Inc., located on the Site, was identified on Facility Index System (FINDS), Enforcement and Compliance History Online (ECHO), Resource Conservation and Recovery Act (RCRA) non generators (NonGen/NLR), EMI, and CIWQS databases. George Verhoeven Grain Inc. was also identified in the CERS, aboveground storage tank (AST), CERS HAZ WASTE, CERS TANKS, National Pollutant Discharge Elimination System (NPDES), and San Bernadino County Permit databases (listed in the EDR Report under “Coast Grain Inc.”) The listings relate to hazardous material management, air quality permits, ASTs, and industrial stormwater permits associated with grain processing operations. The CERS TANKS listings indicated records of aboveground petroleum storage. No other information regarding ASTs was provided in the EDR database listings. The CERS listing indicated some administrative violations during inspections; however, there were no violations indicating a spill or a release occurred at the Site.
- The Scoular Company, located on the Site, was identified as “John Powell,” a manager of Scoular, based on information obtained online, in the HAZNET and HWTS databases. The listings related to hazardous material management between 2006 and 2010. Hazardous wastes in the listing included other organic solids, waste oil and mixed oil, unspecified aqueous solution, and unspecified organic liquid mixture. No violations were identified in the listings.
- Coast Grain Inc./Coast Grain Company, former occupant of the Site, was identified on UST, CERS HAZ WASTE, Statewide Environmental Evaluation and Planning System (SWEEPS) UST, WDS, EMI, HAZNET, and HWTS databases. The listings related to records of USTs, industrial stormwater permits, air quality permits, and hazardous waste management associated with grain processing operations. The SWEEPS UST listing indicated the Site had five registered USTs. No specific information regarding the ASTs or USTs, including tank capacity, contents, or status, was provided in the listings. Hazardous wastes in the listing between 2002 and 2003 included tank bottom waste with halogenated organics.
- G&R Transportation, a freight shipping and trucking company, according to online resources, was listed as being associated with the Site address and identified in the HAULERS database. No pertinent information or violations were identified in the listing. No current or historical information regarding tenants at the Site has indicated G&R



Transportation occupied the Site, and this listing may be incorrectly associated with the Site.

Farallon also searched the GeoTracker database and the California Department of Toxic Substances Control online EnviroStor database (EnviroStor database) for records related to the Site, but found no listings (Farallon, 2022, pp. 6-1 to 6-2).

### 3. *Field Reconnaissance*

Farallon conducted an inspection of the Project Site and surrounding area on January 13, 2022 to observe the Site for physical evidence of recognized environmental conditions. Hazardous substances stored within the Building A warehouse on the eastern parcel included small quantities of oils and automotive fluids. The materials were observed to be stored on pallets, with no staining or other evidence of a significant release. Hazardous substances stored within Building B on the eastern parcel included two 55-gallon used oil drums; two 25-gallon grease carts; and a parts washer attached to a 55-gallon drum of Shellsol D43, a petroleum hydrocarbon-based mineral spirit. The materials were observed to be stored on pallets, with no staining or other evidence of a significant release. Hazardous substances within a fire cabinet in the western parcel office trailer included two 5-gallon gasoline canisters. Additional materials stored outside of the fire cabinet included ten 5-gallon pails containing truck lubricants, gear oil, and hydraulic oil; one 25-gallon grease cart; and one 5-gallon pail containing grease. The materials were observed to be stored on pallets, with no staining or other evidence of a significant release. (Farallon, 2022, pp. 8-2)

The eastern parcel is equipped with a vehicle wash-down area with a sump north of Building B, which is asphalt-paved and bermed, and was previously used for truck washing. Property personnel report that truck exteriors were washed in this area on an infrequent basis, and no undercarriage/chassis or engine washing was conducted on the Site. The wash area is equipped with a lined sump connected to an approximately 10,000-gallon AST via underground piping. The AST was empty at the time of the Site visit. Personnel report that the water tank has not been used in at least 11 years. Given the nature of use and that wash water was routed to an AST with no discharge, the vehicle wash-down area is considered a de minimis condition for the Site. (Farallon, 2022, pp. 8-5)

#### Staining and/or Corrosion

Farallon observed incidental petroleum staining on several areas of the Site, generally near petroleum product storage areas. No drains, sumps, clarifiers, or other potential subsurface conduits were observed in these areas. The staining is considered de minimis and does not constitute a recognized environmental condition. (Farallon, 2022, pp. 8-4)



Storage Tank, Vent Pipe, and/or Fuel Port

Four ASTs were present on-site at the time of the field investigation:

- Two 250-gallon, reportedly double-walled diesel ASTs within secondary containment located on the northeastern exterior border of Building A and used for fueling tractors and forklift equipment. One of the ASTs is used by Verhoeven, and the other by Scoular.
- One 220-gallon, reportedly double-walled hydraulic oil AST located on the northeastern exterior border of Building A. This AST is used to provide new hydraulic oil for equipment operation and maintenance.
- One 499-gallon, single-walled propane AST located east of Building C.

The ASTs were observed to be in good condition with de minimis staining to nearby concrete pads, and no evidence of a significant release. (Farallon, 2022, pp. 8-4)

Septic/Sewer System

Sanitary sewage generated at the Site discharges to three known on-site septic systems, two of which are located on the eastern parcel and one of which is located on the western parcel. Property personnel on the western parcel were unaware of the location of the septic systems. An additional septic system may be located beneath the eastern parcel, which is suspected to be present but not confirmed and cannot be confirmed until subsurface ground disturbance commences as part of the Project's demolition and grading operation.

Because on-site septic systems appear to be used for domestic sewer, with limited hazardous material use in the proximity that could be introduced to the septic systems as a release pathway, the presence of the septic systems at Building E, Building A, and on the western parcel is considered a de minimis condition for the Site. Because the septic system east of Building B is connected to a building that has been subject to the use and release of chlorinated solvents, this septic system is considered a recognized environmental condition in connection with the Site. (Farallon, 2022, pp. 8-4)

Transformers

Three pad-mounted transformers were observed on the Site on the western parcel. No staining or leakage was observed in the vicinity of the transformers. Based on the good condition of the equipment, the transformers are not expected to represent a significant environmental concern. (Farallon, 2022, pp. 8-5)

***B. Airport Hazards***

The Project Site is located approximately 2.7 miles east of the Ontario International Airport (ONT). Under existing conditions, the Project Site is exposed to noise from overflight of aircraft. The Project Site is not located within any ONT Safety Zone.



**C. Wildland Fire Hazards**

The Project Site is completely surrounded by urbanized land uses and the Site not located adjacent to any wildlands. Additionally, the California Department of Forestry and Fire Protection (Cal Fire) does not identify the Project Site within a very high fire hazard severity zone (CAL FIRE, 2008).

**4.7.2 REGULATORY SETTING**

Hazardous materials and hazardous wastes are regulated by various federal, State, and local regulations to protect public health and the environment. This section summarizes the overall regulatory framework governing hazardous materials management that is applicable to the Project and the Project Site.

**A. Federal Plans, Policies, and Regulations**

**1. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Superfund Amendments and Reauthorization Act (SARA)**

The Comprehensive Environmental Response, Compensation, and Liability Act, also known as CERCLA or Superfund, provides a Federal "Superfund" to clean up uncontrolled or abandoned hazardous-waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment (EPA, 2021d). Through CERCLA, the Environmental Protection Agency (EPA) was given power to seek out those parties responsible for any release and assure their cooperation in the cleanup. EPA cleans up orphan sites when potentially responsible parties cannot be identified or located, or when they fail to act. Through various enforcement tools, EPA obtains private party cleanup through orders, consent decrees, and other small party settlements. EPA also recovers costs from financially viable individuals and companies once a response action has been completed.

EPA is authorized to implement the Act in all 50 states and U.S. territories. Superfund site identification, monitoring, and response activities in states are coordinated through the state environmental protection or waste management agencies.

The Superfund Amendments and Reauthorization Act (SARA) of 1986 reauthorized CERCLA to continue cleanup activities around the country. Several site-specific amendments, definitions clarifications, and technical requirements were added to the legislation, including additional enforcement authorities. Also, Title III of SARA authorized the Emergency Planning and Community Right-to-Know Act (EPCRA).

**2. Resource Conservation and Recovery Act (RCRA)**

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave;" this includes the generation, transportation, treatment, storage, and disposal of hazardous waste (EPA, 2021e). RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.



The Federal Hazardous and Solid Waste Amendments (HSWA) are the 1984 amendments to RCRA that focused on waste minimization and phasing out land disposal of hazardous waste as well as corrective action for releases. Some of the other mandates of this law include increased enforcement authority for EPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program.

### 3. *Hazardous Materials Transportation Act (HMTA)*

The Hazardous Materials Transportation Act of 1975 (HMTA) empowered the Secretary of Transportation to designate as hazardous material any "particular quantity or form" of a material that "may pose an unreasonable risk to health and safety or property." (OSHA, n.d.).

Hazardous materials regulations are subdivided by function into four basic areas:

- Procedures and/or Policies 49 CFR Parts 101, 106, and 107
- Material Designations 49 CFR Part 172
- Packaging Requirements 49 CFR Parts 173, 178, 179, and 180
- Operational Rules 49 CFR Parts 171, 173, 174, 175, 176, and 177

The HMTA is enforced by use of compliance orders (49 U.S.C. 1808(a)), civil penalties (49 U.S.C. 1809(b)), and injunctive relief (49 U.S.C. 1810). The HMTA (Section 112, 40 U.S.C. 1811) preempts state and local governmental requirements that are inconsistent with the statute, unless that requirement affords an equal or greater level of protection to the public than the HMTA requirement.

### 4. *Hazardous Materials Transportation Uniform Safety Act of 1990*

In 1990, Congress enacted the Hazardous Materials Transportation Uniform Safety Act (HMTUSA) to clarify the maze of conflicting state, local, and federal regulations. Like the HMTA, the HMTUSA requires the Secretary of Transportation to promulgate regulations for the safe transport of hazardous material in intrastate, interstate, and foreign commerce (OSHA, n.d.). The Secretary also retains authority to designate materials as hazardous when they pose unreasonable risks to health, safety, or property.

The statute includes provisions to encourage uniformity among different state and local highway routing regulations, to develop criteria for the issuance of federal permits to motor carriers of hazardous materials, and to regulate the transport of radioactive materials.

### 5. *Occupational Safety and Health Act (OSHA)*

Congress passed the Occupational and Safety Health Act (OSHA) to ensure worker and workplace safety. Their goal was to make sure employers provide their workers a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions (EPA, 2021c). In order to establish standards for workplace health and safety, the Act also created the National Institute for Occupational



Safety and Health (NIOSH) as the research institution for OSHA. OSHA is a division of the U.S. Department of Labor that oversees the administration of the Act and enforces standards in all 50 states.

## 6. *Toxic Substances Control Act*

The Toxic Substances Control Act (TSCA) of 1976 provides EPA with authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures (EPA, 2021f). Certain substances are generally excluded from TSCA, including, among others, food, drugs, cosmetics, and pesticides. TSCA addresses the production, importation, use, and disposal of specific chemicals including polychlorinated biphenyls (PCBs), asbestos, radon, and lead-based paint.

Various sections of TSCA provide authority to:

- Require, under Section 5, pre-manufacture notification for "new chemical substances" before manufacture.
- Require, under Section 4, testing of chemicals by manufacturers, importers, and processors where risks or exposures of concern are found.
- Issue Significant New Use Rules (SNURs), under Section 5, when it identifies a "significant new use" that could result in exposures to, or releases of, a substance of concern.
- Maintain the TSCA Inventory, under Section 8, which contains more than 83,000 chemicals. As new chemicals are commercially manufactured or imported, they are placed on the list.
- Require those importing or exporting chemicals, under Sections 12(b) and 13, to comply with certification reporting and/or other requirements.
- Require, under Section 8, reporting and record-keeping by persons who manufacture, import, process, and/or distribute chemical substances in commerce.
- Require, under Section 8(e), that any person who manufactures (including imports), processes, or distributes in commerce a chemical substance or mixture and who obtains information which reasonably supports the conclusion that such substance or mixture presents a substantial risk of injury to health or the environment to immediately inform EPA, except where EPA has been adequately informed of such information. EPA screens all submissions as well as voluntary "For Your Information" (FYI) submissions. The latter are not required by law, but are submitted by industry and public interest groups for a variety of reasons.

## ***B. State Plans, Policies, and Regulations***

### ***1. Cal/OSHA and the California State Plan***

Under an agreement with OSHA, since 1973 California has operated an occupational safety and health program in accordance with Section 18 of the federal OSHA. The State of California's Department of Industrial Relations administers the California Occupational Safety and Health Program, commonly referred to as Cal/OSHA. The State of California's Division of Occupational Safety and Health (DOSH) is the principal agency that oversees plan enforcement and consultation. In addition, the California State program has an independent Standards Board responsible for promulgating State





safety and health standards, and reviewing variances. It also has an Appeals Board to adjudicate contested citations and the Division of Labor Standards Enforcement to investigate complaints of discriminatory retaliation in the workplace.

Pursuant to 29 CFR 1952.172, the California State Plan applies to all public and private sector places of employment in the State, with the exception of federal employees, the United States Postal Service, private sector employers on Native American lands, maritime activities on the navigable waterways of the United States, private contractors working on land designated as exclusively under federal jurisdiction and employers that require federal security clearances (OSHA, n.d.). Cal/OSHA is the only agency in the State authorized to adopt, amend, or repeal occupational safety and health standards or orders. In addition, the Standards Board maintains standards for certain things not covered by federal standards or enforcement, including: elevators, aerial passenger tramways, amusement rides, pressure vessels, and mine safety training. The Cal/OSHA enforcement unit conducts inspections of California workplaces in response to a report of an industrial accident, a complaint about an occupational safety and health hazard, or as part of an inspection program targeting industries with high rates of occupational hazards, fatalities, injuries or illnesses.

## 2. *California Hazardous Waste Control Law*

The Hazardous Waste Control Law (HWCL) (Health and Safety Code [HSC], Division 20, Chapter 6.5, Section 25100, et seq.) is the primary hazardous waste statute in California (CA Legislative Info, n.d.). The HWCL implements RCRA as a “cradle-to-grave” waste management system in the state. It specifies that generators have the primary duty to determine whether their wastes are hazardous and to ensure its proper management. The HWCL also establishes criteria for the reuse and recycling of hazardous wastes used or reuse as raw materials. The HWCL exceeds federal requirements by mandating source reduction planning and broadening requirements for permitting facilities that treat hazardous waste. It also regulates a number of waste types and waste management activities not covered by federal law (RCRA).

## 3. *California Code of Regulations (CCR), Titles 5, 17, 22 and 26*

A variety of California Code of Regulation (CCR) titles address regulations and requirements for generators of hazardous waste (DTSC, n.d.; DTSC, 2019). Title 5 contains the California Plumbing Code which, in Appendix H, establishes detailed standards for the capping, removal, fill, and disposal of cesspools, septic tanks, and seepage pits. Title 17, Division 1, Chapter 8, defines and regulates handling and disposal of lead-based paint. Any detectable amount of lead is regulated. Title 22 contains detailed compliance requirements for hazardous waste generators, transporters, and facilities for treatment, storage, and disposal. Because California is a fully-authorized state according to RCRA, most regulations (i.e., 40 CFR 260, et seq.) have been duplicated and integrated into Title 22. However, because the Department of Toxic Substances Control (DTSC) regulates hazardous waste more stringently than the EPA, the integration of state and federal hazardous waste regulations that make up Title 22 does not contain as many exemptions or exclusions as does 40 CFR 260. Title 22 also regulates a wider range of waste types and waste management activities than does RCRA. To aid the regulated



community, California has compiled hazardous materials, waste, and toxics-related regulations from CCR, Titles 3, 8, 13, 17, 19, 22, 23, 24 and 27 into one consolidated listing: CCR Title 26 (Toxics).

#### **4. *Safe Drinking Water and Toxic Enforcement Act***

Proposition 65, officially known as the Safe Drinking Water and Toxic Enforcement Act of 1986 (Health and Safety Code, Division 20, Chapter 6.6, Section 25249.5, *et seq.*), protects the state's drinking water sources from being contaminated with chemicals known to cause cancer, birth defects, or other reproductive harm, and requires businesses to inform Californians about exposures to such chemicals. Proposition 65 requires the state to maintain and update a list of chemicals known to the state to cause cancer or reproductive toxicity.

#### **5. *Unified Hazardous Waste and Hazardous Materials Management Regulatory Program***

California's Unified Program, overseen by the California Environmental Protection Agency (CalEPA), protects Californians from hazardous waste and hazardous materials by ensuring local regulatory agencies consistently apply statewide standards when they issue permits, conduct inspections, and engage in enforcement activities. The Unified Program is a consolidation of multiple environmental and emergency management programs, including the following:

- Aboveground Petroleum Storage Act (APSA) Program;
- Area Plans for Hazardous Materials Emergencies;
- California Accidental Release Prevention (CalARP) Program;
- Hazardous Materials Release Response Plans and Inventories (Business Plans);
- Hazardous Materials Management Plan (HMMP) and Hazardous Materials Inventory Statements (HMIS) (California Code);
- Hazardous Waste Generator and Onsite Hazardous Waste Treatment (tiered permitting) Programs; and
- Underground Storage Tank Program.

State agency partners involved in the implementation of the Unified Program are responsible for setting program element standards, working with CalEPA to ensure program consistency, and providing technical assistance to the California Unified Program Agencies (CUPAs) and Program Agencies (PAs). The state agencies involved with the Unified Program include CalEPA, Department of Toxic Substances Control (DTSC), the Governor's Office of Emergency Services (Cal OES), CAL FIRE – Office of the State Fire Marshall (CAL FIRE-OSFM), and the State Water Resources Control Board.

#### **6. *License to Transport Hazardous Materials***

Caltrans regulates hazardous materials transportation on all interstate roads (California Vehicle Code, Section 32000.5, *et seq.*). Within California, the State agencies with primary responsibility for enforcing federal and State regulations and for responding to transportation emergencies are the California Highway Patrol and Caltrans. Together, federal and State agencies determine driver-training



requirements, load labeling procedures, and container specifications for vehicles transporting hazardous materials.

**7. *California Hazardous Materials Release Response Plan and Inventory Law of 1985***

The Business Plan Act requires preparation of Hazardous Materials Business Plans and disclosure of hazardous materials inventories, including an inventory of hazardous materials handled, plans showing where hazardous materials are stored, an emergency response plan, and provisions for employee training in safety and emergency response procedures for businesses that handle, store, or transport hazardous materials in amounts exceeding specified minimums (California Health and Safety Code, Division 20, Chapter 6.95, Article 1). Statewide, DTSC has primary regulatory responsibility for management of hazardous materials, with delegation of authority to local jurisdictions that enter into agreements with the State. Local agencies are responsible for administering these regulations.

Several state agencies regulate the transportation and use of hazardous materials to minimize potential risks to public health and safety, including CalEPA and the California Emergency Management Agency. The California Highway Patrol and Caltrans enforce regulations specifically related to the transport of hazardous materials. Together, these agencies determine container types used and license hazardous waste haulers for hazardous waste transportation on public roadways.

**8. *California Government Code (CGC) Section 51178***

This section specifies that the Director of CalFire, in cooperation with local fire authorities, shall identify areas that are Very High Fire Hazard Severity Zones (VHFHSZ) in Local Responsibility Areas (LRAs), based on consistent statewide criteria, and the expected severity of fire hazard. Per CGC Section 51178, a local agency may, at its discretion, exclude an area within its jurisdiction that has been identified as a VHFHSZ, if certain conditions are met and/or specific findings can be made regarding the availability of effective fire protection services within the affected area.

***C. Local Plans, Policies, and Regulations***

***1. Local Permitting Requirements***

The aforementioned federal and State hazardous materials regulations require all businesses that handle more than a specified amount of hazardous materials or extremely hazardous materials to obtain a hazardous materials permit and submit a business plan to its local Certified Unified Program Agency (CUPA). The CUPA also ensures local compliance with all applicable hazardous materials regulations. The CUPA is the San Bernardino County Fire Department, Hazardous Materials Division. The San Bernardino County Fire Department, Hazardous Materials Division also manages the following hazardous waste programs: 1) Hazardous Materials Release Response Plans and Inventory; 2) California Accidental Release Program; 3) Underground Storage Tanks; 4) Aboveground Petroleum Storage Act/Spill Prevention, Control, and Countermeasure Plan; 5) Hazardous Waste Generation and Onsite Treatment; and 6) Hazardous Materials Management Plans and Inventory.



## 2. *City of Ontario Local Hazard Mitigation Plan*

The City of Ontario's Local Hazard Mitigation Plan (LHMP) is a plan that the City reviews, monitors, and updates approximately every five years to reflect changing conditions and new information regarding hazards faced by the City of Ontario. The most current version is dated 2018 and it identifies the City's hazards, reviews, and assesses past disaster occurrences, estimates the probability of future occurrences, and sets goals to reduce or eliminate long-term risk to people and property from natural and man-made hazards. The LHMP contains a series of goals and mitigation programs to address each of the hazards.

## 3. *Ontario International Airport – Airport Land Use Compatibility Plan*

The Ontario International Airport (ONT) Airport Land Use Compatibility Plan (ALUCP) establishes safety zones, airspace protection zones, noise impact zones, and recorded overflight notification zones for areas within the ONT. The Project Site is located approximately 2.3 miles east of the ONT and is located within its airport influence area (AIA). Accordingly, the Project Site is subject to the ONT ALUCP. The Project Site is not located within any ONT Safety Zone but a small portion of the Site abutting East Airport Drive is located in an ONT noise impact zone (60-65 decibels). (Ontario, 2011)

## 4. *SCAQMD Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities*

Rule 1403 requires the implementation of specific work practices to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials (ACM) (SCAQMD, 2007). The requirements for demolition and renovation activities include asbestos surveying, notification, ACM removal procedures and time schedules, ACM handling and clean-up procedures, and storage, disposal, and landfilling requirements for asbestos-containing waste materials (ACWM).

### **4.7.3 METHODOLOGY FOR EVALUATING HAZARDS & HAZARDOUS MATERIALS IMPACTS**

The analysis of potential hazards and hazardous materials-related impacts is based on hazardous materials investigations prepared specifically for the Project Site. The investigations included site reconnaissance, review of published reports, maps, and aerial photographs, field investigations, and laboratory testing. The analysis also included a review of the City's Policy Plan, information sources from State and Federal agencies, a review of applicable airport land use plans, hazardous materials mapping, fire hazard mapping, and other resource databases.

### **4.7.4 BASIS FOR DETERMINING SIGNIFICANCE**

Section VIII of Appendix G to the CEQA Guidelines addresses typical adverse effects due to hazards and hazardous materials, and includes the following threshold questions to evaluate the Project's impacts from hazards and hazardous materials (OPR, 2019):

- a. *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;*



- b. *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;*
- c. *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;*
- d. *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;*
- e. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area;*
- f. *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan;*
- g. *Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?*

#### 4.7.5 IMPACT ANALYSIS

***Threshold a:*** *Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

***Threshold b:*** *Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

Implementation of the Project would require demolition and removal of all existing structures and improvements on the Project Site, as well as the removal of all materials stored on the Site, and would result in the construction and long-term operation of one warehouse distribution building on the Site. In the event any hazards or hazardous materials were to be present on the Project Site or any hazardous materials were to be used or stored on the Project Site during construction or long-term operation, the Project would have the potential to expose workers on-site, the public, and/or the environment to a substantial hazard. The analysis below evaluates the potential for the Project to result in a substantial hazard to people or the environment during any stage of the Project.

#### ***A. Impact Analysis for Existing Site Conditions***

##### ***1. Soil Vapor***

In March 2022, Farallon conducted soil and soil vapor sampling at the Site to assess former UST areas and septic systems, and the new building footprint for the potential for vapor intrusion issues. Results



showed that no total petroleum hydrocarbons (TPH) or volatile organic compounds (VOCs) were detected exceeding laboratory detection limits in the soil samples collected from the Project Site. Low concentrations of naturally occurring metals including barium, cadmium, cobalt, chromium, copper, nickel, lead, vanadium, and zinc were detected in two soil samples submitted for analysis; and these concentrations were considerably less than screening levels. (Farallon, 2022, pp. 10-3)

Based on the sampling results, tetrachloroethylene (PCE) has been documented in soil vapor in the vicinity of Building B at concentrations exceeding screening levels, and PCE is also present in central and eastern portions of the Site in shallow zones at concentrations less than calculated screening levels. (Farallon, 2022, pp. 10-4) Therefore, PCE impacts potentially associated with the use and storage of hazardous materials at Building B could contribute to vapor intrusion conditions on the Project Site and impacts would be potentially significant.

## 2. *Building Materials*

The use of ACMs (a known carcinogen) and lead paint (a known toxin) was common in building construction prior to 1978. Because the Project Site contains structures known to be constructed before 1978, there is potential for ACMs and surfaces covered with lead paint to be present on the Project Site.

Asbestos is a carcinogen and is categorized as a hazardous air pollutant by the federal EPA. Federal asbestos requirements are found in National Emission Standards for Hazardous Air Pollutants (NESHAP) within the CFR Title 40, Part 61, Subpart M, and are enforced in the Project area by the SCAQMD via Rule 1403. Rule 1403 establishes survey requirements, notification, and work practice requirements to prevent asbestos emissions from emanating during building renovation and demolition activities. Because ACMs are present in the existing construction debris and/or structures located on the property, then Rule 1403 requires notification of the SCAQMD prior to commencing any demolition or renovation activities. Rule 1403 also sets forth specific procedures for the removal of asbestos, and requires that an on-site representative trained in the requirements of Rule 1403 be present during the stripping, removing, handling, or disturbing of ACM. Mandatory compliance with the provisions of Rule 1403 would ensure that construction-related grading, clearing and demolition activities do not expose construction workers or nearby sensitive receptors to significant health risks associated with ACMs. Because the Project's demolition and construction contractors would be required to comply with AQMD Rule 1403 during demolition activities, impacts due to asbestos would be less than significant.

During demolition of the existing buildings on-site, there also is a potential to expose construction workers to health hazards associated with lead-based paint (LBP). The Project's demolition and construction contractors would be required to comply with CCR Title 17, Division 1, Chapter 8, which includes requirements such as employer provided training, air monitoring, protective clothing, respirators, and hand washing facilities. Mandatory compliance with the requirements of CCR Title 17, Division 1, Chapter 8 would ensure that construction workers and the public are not exposed to



significant LBP health hazards during demolition and/or during transport of demolition waste to an appropriate disposal facility, and would ensure that impacts related to LBP remain less than significant.

***B. Impact Analysis for Temporary Construction-Related Activities***

Heavy equipment (e.g., dozers, excavators, tractors) would be operated on the Project Site during construction. This heavy equipment likely would be fueled and maintained by petroleum-based substances such as diesel fuel, gasoline, oil, and hydraulic fluid, which are considered hazardous if improperly stored or handled. In addition, materials such as paints, adhesives, solvents, and other substances typically used in building construction would be located on the Project Site during construction. Improper use, storage, or transportation of hazardous materials can result in accidental releases or spills, potentially posing health risks to workers, the public, and the environment. This is a standard risk on all construction sites, and there would be no greater risk for improper handling, transportation, or spills associated with the Project than would occur on any other similar construction site. Construction contractors would be required to comply with all applicable federal, State, and local laws and regulations regarding the transport, use, and storage of hazardous construction-related materials, including but not limited to requirements imposed by the EPA, DTSC, and the Santa Ana RWQCB. With mandatory compliance with applicable hazardous materials regulations, the Project would not create significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials during the construction phase, nor would the Project increase the potential for accident conditions which could result in the release of hazardous materials into the environment. A less-than-significant impact would occur.

***C. Impact Analysis for Long-Term Operation***

The future building occupant(s) for the Project Site are not yet identified. However, the Project is designed to house warehouse distribution occupants and it is possible that hazardous materials could be used during the course of a future building user's daily operations. State and federal Community-Right-to-Know laws allow the public access to information about the amounts and types of chemicals in use at local businesses. Laws also are in place that requires businesses to plan and prepare for possible chemical emergencies. Any business that occupies the warehouse building on the Project Site and that handles hazardous materials (as defined in Section 25500 of California Health and Safety Code, Division 20, Chapter 6.95) will require a permit from the San Bernardino County Fire Department Hazardous Materials Division in order to register the business as a hazardous materials handler. Such businesses also are required to comply with California's Hazardous Materials Release Response Plans and Inventory Law, which requires immediate reporting to the County of San Bernardino Fire Department and the State Office of Emergency Services regarding any release or threatened release of a hazardous material, regardless of the amount handled by the business, and to prepare a Hazardous Materials Business Emergency Plan (HMBEP). An HMBEP is a written set of procedures and information created to help minimize the effects and extent of a release or threatened release of a hazardous material. With mandatory regulatory compliance, the Project would not pose a significant hazard to the public or the environment through the routine transport, use, storage, emission, or disposal of hazardous materials, nor would the Project increase the potential for accident conditions which could result in the release of hazardous materials into the environment. Based on the foregoing



information, potential hazardous materials impacts associated with long-term operation of the Project are regarded as less than significant.

***Threshold c: Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?***

The Project Site is not within one-quarter mile of an existing or proposed school. The nearest school to the Project Site is the Chaparral Elementary School, which is located approximately 2.23 miles southeast of the Project Site. Accordingly, the Project has no potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, and/or wastes within one-quarter mile of an existing or proposed school. No impact would occur.

***Threshold d: Would the Project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?***

Government Code Section 65962.5 requires State Department of Health Services (DTSC), State Water Resources Control Board, and the State Department of Resources Recycling and Recovery to maintain a list of hazardous materials sites that fall within specific, defined categories. As discussed in Subsection 4.7.1A.2, current and previous uses of the Project Site are included in several listings. No violations indicating a spill or a release were identified in the listings. Therefore, these listings are not considered to represent a significant environmental concern. Additionally, Farallon searched the GeoTracker database and the California Department of Toxic Substances Control online EnviroStor database (EnviroStor database) for records related to the Site, but found no listings.

Two facilities (Costco Distribution Center to the south and Praxair, Inc. to the east) in the Project's vicinity were also recorded in several listings. However, based on the status, depth to groundwater, and location of the property at a cross-gradient direction from the Project Site, no evidence was found to indicate that these properties represent a recognized environmental condition in connection with the Project Site. (Farallon, 2022, pp. 6-2 to 6-3) Therefore, impacts would be less than significant.

***Threshold e: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the project area?***

The Project Site is located approximately 2.7 miles east of the Ontario International Airport (ONT). According to the Ontario International Airport (ONT) Land Use Compatibility Plan (ALUCP), the Project Site is located within the ONT Airport Influence Area (Ontario, 2011). Moreover, the Project Site is located outside the 65community noise equivalent level (CNEL) noise impact zone and is subject to the Noise Criteria established on Table 2-3 in the ONT ALUCP. According to Table 2-3 of the ONT ALUCP, industrial land uses located outside the 65 dBA CNEL noise level contours of ONT,





such as the Project, are considered normally compatible land use. For normally compatible land use, either the activities associated with the land use are inherently noisy or standard construction methods will sufficiently attenuate exterior noise to an acceptable indoor CNEL. Therefore, the Project would not result in excessive noise for people residing or working in the Project area.

Furthermore, the Project Site is not located in an ONT safety hazard zone (Ontario, 2011). Accordingly, implementation of the Project would not result in a safety hazard for people living or working on the Project area and impacts would be less than significant.

***Threshold f: Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?***

The City's Safety Element includes policies and procedures to be administered in the event of a disaster. The Ontario Plan seeks interdepartmental and interjurisdictional coordination and collaboration to be prepared for, respond to and recover from everyday and disaster emergencies. The City manages disaster preparedness through the Technical Services Bureau of the Ontario Fire Department. This bureau is responsible for the preparation of the community for disasters and the organization of recovery efforts. The City updated a Local Hazard Mitigation Plan prepared by the Office of Emergency Services of the Ontario Fire Department in 2018. Because the Project Site has been historically used for industrial uses, it is not identified in any of these plans as being an evacuation area.

Furthermore, construction of the Project would be generally confined to the Project Site and would not physically impair access to the Site or the Project area. During both construction and long-term operation, the Project would be required to maintain adequate emergency access for emergency vehicles as required by the City and the Ontario Fire Department. In addition, the Project will comply with the requirements of the Ontario Fire Department and all City requirements for fire and other emergency access. Because the Project is required to comply with all applicable City codes, impacts would be less than significant level.

***Threshold g: Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?***

The Project Site is not located adjacent to wildlands nor is the Project Site located within or adjacent to a very high fire hazard severity zone (CAL FIRE, 2008). Accordingly, the Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. No impact would occur.

#### 4.7.6 CUMULATIVE IMPACT ANALYSIS

As discussed above under the responses to Thresholds "a" and "b," the Project's construction and operation would be required to comply with all applicable federal, state, and local regulations to ensure proper use, storage, and disposal of hazardous substances. Although the end user(s) of the Project Site are not presently known, if businesses that use or store hazardous materials occupy the Project, the



business owners and operators would be required to comply with all applicable federal, state, and local regulations to ensure proper use, storage, and disposal of hazardous substances. Such uses also would be subject to additional review and permitting requirements by the San Bernardino County Fire Department. Similarly, any other developments in the area proposing the construction of uses with the potential for use, storage, or transport of hazardous materials also would be required to comply with applicable federal, State, and local regulations, and such uses would be subject to additional review and permits from their local oversight agency. Although there is on-site contamination present, compliance with mitigation measure MM 4.7-1 would ensure isolation of any impacts to the Project Site and would not have the ability to impact the surrounding area. Therefore, the potential for release of toxic substances or hazardous materials into the environment, either through accidents or due to routine transport, use, or disposal of such materials, would be reduced to a less-than-significant cumulative level. Accordingly, the Project's potential to contribute to a cumulatively significant hazardous materials impact would be less than significant.

The Project Site is not located within one-quarter mile of a school; therefore, the Project has no potential effect on students in relation to the use, handling, and transport of hazardous materials and would have no impact.

As indicated under Threshold "d," facilities in the site vicinity are not considered to be an REC to the Site. Because the Project Site is not classified as a hazardous materials site, there is no potential for the Project to contribute to, or exacerbate, adverse environmental effects resulting from other hazardous materials sites in the Project vicinity.

As discussed above under the response to Threshold "e," the Project is not a noise-sensitive land use and would not be adversely affected by noise from operations at the ONT. In addition, the Project would not introduce any land use to the Project Site that would conflict with the ONT ALUCP. Therefore, the Project would not result in a safety hazard or excessive noise for people residing or working in the Project area and would not contribute to a cumulatively considerable impact associated with airport hazards.

The Project Site does not contain any emergency facilities nor does it serve as an emergency evacuation route; thus, there is no potential for the Project to contribute to any cumulative impacts associated with an adopted emergency response plan or emergency evacuation plan.

As discussed above under Threshold "g," the Project Site is not located within or in close proximity to areas identified as being subject to wildland fire hazards and would have no potential to contribute to adverse, cumulative wildland fire hazards.

#### **4.7.7 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION**

Threshold a and b: Potentially-Significant Impact. During Project construction and operation, mandatory compliance to federal, State, and local regulations would ensure that the proposed Project would not create a significant hazard to the environment due to routine transport, use, disposal, or upset of hazardous materials. However, based on the results of the Phase I/II ESA, PCE impacts potentially



associated with the use and storage of hazardous materials at Building B could contribute to vapor intrusion conditions on the Project Site and impacts would be potentially significant.

Threshold c: No Impact. The Project Site is not located within one-quarter mile of any existing or proposed school. Accordingly, the Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Impacts to schools located more than one-quarter mile of the Project Site would be less than significant.

Threshold d: Less-than-Significant Impact. Current and previous uses of the Project Site are included in several listings. No violations indicating a spill or a release were identified in the listings. Therefore, these listings are not considered to represent a significant environmental concern and impacts would be less than significant.

Threshold e: Less-than-Significant Impact. The Project is consistent with the restrictions and requirements of the ONT ALUCP. As such, the Project would not result in an airport safety hazard for people residing or working in the Project area.

Threshold f: Less-than-Significant Impact. The Project Site does not contain any emergency facilities nor does it serve as an emergency evacuation route. During construction and long-term operation, adequate emergency vehicle access is required to be provided. Accordingly, implementation of the Project would not impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan.

Threshold g: No Impact. The Project Site is not located in close proximity to wildlands or areas with high fire hazards. Thus, the Project would not expose people or structures to a significant wildfire risk.

#### 4.7.8 MITIGATION

MM 4.7-1 Prior to the issuance of a grading permit, the Project Applicant shall prepare a Soil Management Plan (SMP). The SMP shall include explicit instructions for the appropriate handling, storage, and disposal of any known or potentially impacted soil during soil moving activities. The general contractor will be required to follow the requirements of the SMP and stop work to make notification to the environmental team if any potential impacts are observed at any time the environmental team is not already on-site. The SMP also requires air monitoring activities to monitor the air downwind of the Project Site and appropriate Health and Safety Plans that will be employed by site workers. The SMP shall identify specific requirements intended to protect human health when soil in certain areas of known or suspected impacts are disturbed for any reason, including, without limitation, as a result of demolition, utility installation/repair, soil excavation, drilling, grading/filling activities, stockpile generation, soil management, loading, and transportation. Requirements of the SMP include:



- a. Health and Safety Plan (HASP): A HASP will be prepared and in effect for all activities associated with the SMP and other activities at the Project Site. Contractors working onsite are expected to be operating under their own health and safety plans.
- b. Environmental Monitoring: In accordance with SCAQMD Rules, air monitoring will be necessary in areas where potential PCE contaminated soil are to be disturbed. Air monitoring for dust may also be required in other areas. An air monitoring/health and safety professional will be present during relevant activities and responsibilities will include recording monitoring data on field sheets, which will be kept as part of Project documentation.
- c. Soil Monitoring: Soils impacted by PCE that are encountered during site redevelopment will be characterized and documented. The monitoring and sampling activities to be performed include:
  - Visual observation performed to detect areas of soil that may be impacted by PCE or other non-VOC hazardous materials, if encountered.
  - Screening for PCEs using field instruments to document new or previously undetected sources of PCEs.
  - Soil sampling and chemical testing performed to evaluate concentrations of PCE.
- d. Proper Soil Handling: If impacted soil is encountered, the area will be delineated as necessary with cones, caution tape, stakes, chalk, or flagging, and the area will not be disturbed further until an environmental professional is onsite for observation and determination of whether testing and/or excavation work is required. Stockpile staging areas will be delineated prior to the start of excavation. All excavations will conform to applicable regulations, including Cal/OSHA Construction Safety Orders. The specific equipment, means, and methods to be utilized for soil removal, handling, and disposition will be selected based on the nature of the work to be conducted and its location on the site. If excavation is conducted during the rainy season (October through April), provisions will need to be made to prevent offsite migration of sediment in runoff.
- e. Fugitive Dust and Vapor Control: Appropriate procedures will be implemented to control the generation of airborne dust by soil removal activities, including, but not limited to, the use of water as a dust suppressant or stopping activities that have the potential to generate fugitive dust in the event wind conditions change creating an uncontrollable condition.
- f. Excavation and Stockpiling: Impacted soil that is excavated and not immediately removed from the site will be stockpiled onsite and covered with plastic sheeting to control dust and minimize exposure to precipitation and wind. If a stockpile remains onsite during the rainy season, a perimeter sediment barrier, constructed



of material, such as straw bales or fiber roll, will also be installed. The stockpiles will be inspected biweekly at a minimum. During stockpile removal, only the working face of the stockpile will be uncovered. If the stockpiled impacted soil is to be transported offsite for disposal or recycling, the soil will be profiled for waste characteristics. Soil samples will be analyzed for parameters required by the disposal/recycling facility.

- g. Responding to Unknown Conditions: If previously unknown impacted soil is suspected (based on visual staining, odors, photo ionization detector readings, or other observations), the area will be delineated and construction activity will cease in this area, and sampling of the unknown material will occur using USEPA methodology. Analysis will be conducted for TPH, metals, and/or VOCs, as appropriate. Analytical results will be compared to applicable regulatory screening levels. Based on this comparison, a determination will be made regarding soil disposition (reuse on-site, off-site transport, and disposal/recycling, etc.). Additionally, if any UST or other subsurface features are encountered, a similar approach will be taken, and appropriate permitting, as necessary, will be obtained for the removal of the feature(s). Any permitted removals will be conducted with appropriate regulatory oversight, documentation, and reporting.
- h. Imported fill: As appropriate, offsite soils brought to the site for use as backfill (import fill), if necessary, will be tested in general conformance with the DTSC Information Advisory Clean Imported Fill Material document.
- i. Post-construction Requirements: If contaminated soil is left in place, the location of this soil will be surveyed or recorded by use of geographic positioning system equipment. Following the completion of construction, excavation, and disposition activities, a summary report will be prepared. The report will include a summary of activities, locations of soil sources and final disposition of contaminated soil, and estimated quantities of materials. Additionally, removal of any USTs or other subsurface features, if encountered, will be conducted under appropriate permits (if any) and documented in applicable reports for submittal to the Ontario Fire Department, or other regulatory agency, as appropriate.

#### 4.7.9 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Threshold a and b: Less-than-Significant Impact. Mitigation measure MM 4.7-1 would result in the preparation of a SMP for the Project. The SMP identifies requirements intended to protect human health when soil in certain areas of known or suspected areas are disturbed for any reason, including, without limitation, as a result of demolition, utility installation/repair, soil excavation, drilling, grading/filling activities, stockpile generation, soil management, loading, and transportation. Requirements of the SMP include protocols for the HASP, environmental monitoring, proper soil handling (if impacted soil is encountered), fugitive dust and vapor control, excavation and stockpiling, soil monitoring, soil monitoring, responding to unknown conditions, imported fill, and post-construction requirements. With the implementation of mitigation measure MM 4.7-1, the risk of



exposure of hazardous materials to the workers and the public through the routine transport, use, or disposal of contaminated or potentially contaminated soils or accident conditions would be less than significant.



## 4.8 HYDROLOGY AND WATER QUALITY

Information in this subsection relies on two technical reports prepared for the Project by Westland Group, Inc. (hereinafter, “Westland”): 1) “Preliminary Hydrology Report”, dated March 2022 (Westland, 2022a); and 2) “Preliminary Water Quality Management Plan (PWQMP)”, dated March 2022 (Westland, 2022b). These reports are provided as *Technical Appendix H1* and *H2*, respectively, to this EIR. All other information sources referenced in this subsection are listed in EIR Section 7.0, *References*.

The Project Site is located within the Santa Ana River watershed and is under the jurisdiction of the Santa Ana Regional Water Quality Control Board (RWQCB). As such, information for this subsection also was obtained from the Santa Ana RWQCB’s *Santa Ana River Basin Water Quality Control Plan* (updated June 2019) and the *Integrated Regional Water Management Plan (IRWMP)* for the Santa Ana River watershed (also referred to as “One Water One Watershed Plan Updated 2018,” (February 19, 2019) prepared by the Santa Ana Watershed Project Authority (SAWPA). These documents are herein incorporated by reference and are available for public review at the physical locations and website addresses given in EIR Section 7.0, *References*.

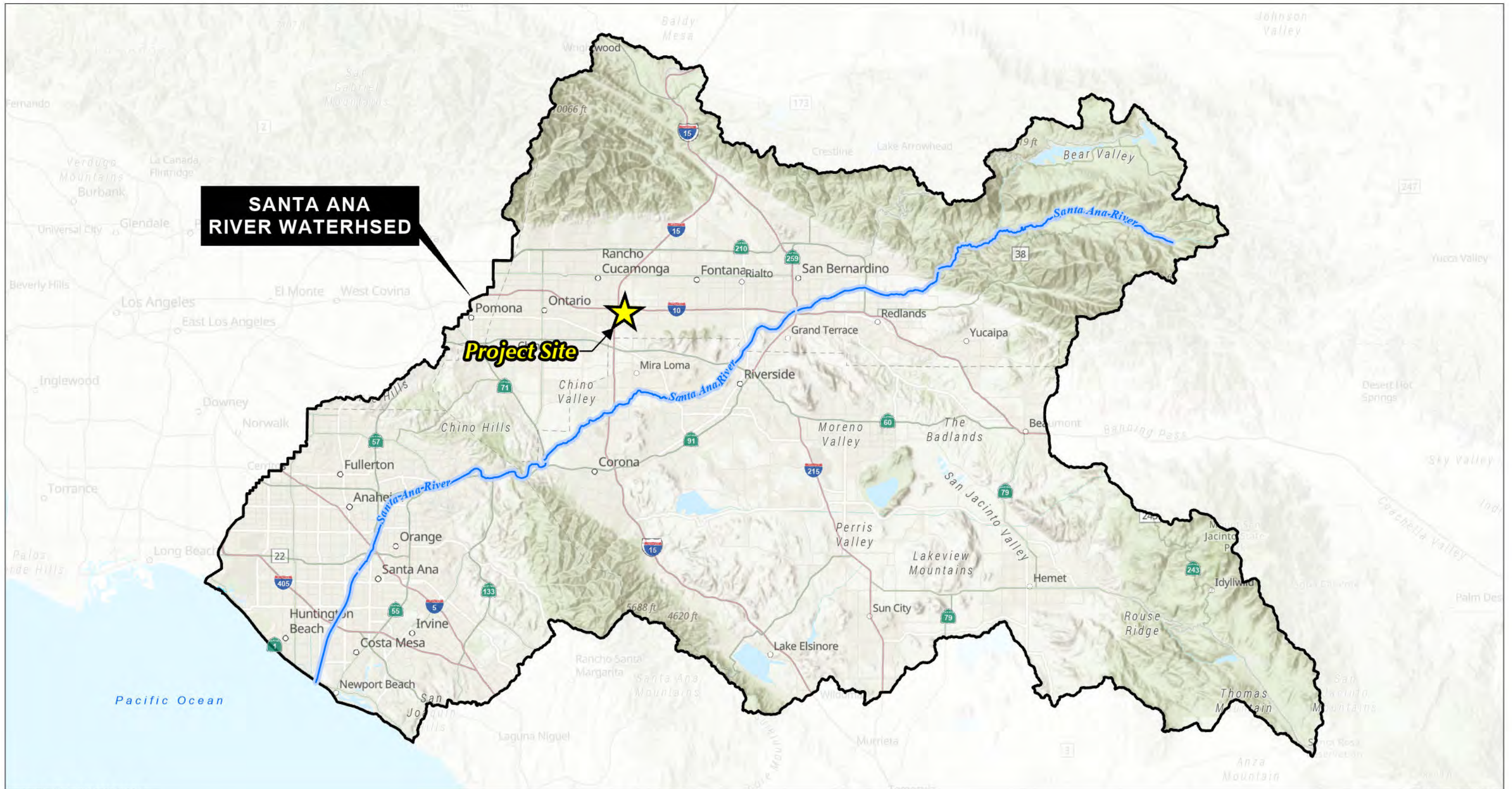
### 4.8.1 EXISTING CONDITIONS

#### A. Regional Hydrology

The Project Site is located within the 2,650-acre Santa Ana River watershed. Within the Santa Ana River watershed, the Santa Ana River is the principal surface flow water body within the region. The Santa Ana River originates in Santa Ana Canyon in the southern San Bernardino Mountains and runs southwesterly across San Bernardino, Riverside, and Orange Counties, where it discharges into the Pacific Ocean at the City of Huntington Beach. The total length of the Santa Ana River and its major tributaries is approximately 700 miles. The location of the Project Site within the Santa Ana River watershed is illustrated on Figure 4.8-1, *Santa Ana River Watershed Map*.

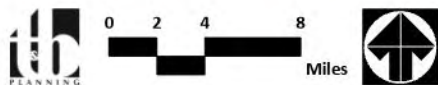
#### B. Site Hydrology

The Project Site currently consists of approximately 92% impervious surface area. The natural drainage pattern for the existing condition of the Site is north to south. There are no existing no public storm drain systems at the frontage of the Project Site. Stormwater sheet flows south and discharges onto the existing curb and gutter on Airport Drive. Runoff flows east along Airport Drive and discharges into an existing catch basin located approximately 1,500 feet east of the Site. This existing catch basin is connected to the Lower Etiwanda Creek Channel, which conveys stormwater to the Wineville Basin. (Westland, 2022a, p. 1)



Source(s): ESRI, RCTLMA (2023)

Figure 4.8-1



**Santa Ana River Watershed Map**





***C. Flooding and Dam Inundation***

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. 06071C8633J (effective 09/02/2016), the Project Site is located within FEMA Flood Zone X, which is correlated with areas of minimal flood hazard, determined to be less than the 0.2 percent annual chance flood. (FEMA, 2016)

***D. Water Quality***

The Federal Water Pollution Control Act Amendment of 1972 (also referred to as the Clean Water Act, CWA) requires all states to conduct water quality assessments of their water resources to identify water bodies that do not meet water quality standards. Water bodies that do not meet water quality standards due to excessive concentrations of pollutants are placed on a list of impaired waters pursuant to Section 303(d) of the CWA. Impaired water bodies to which stormwater from the City drains to include: Cucamonga Creek, Reach 1 (Zinc, copper, cadmium, lead); San Antonio Creek (pH); Chino Creek, Reach 2 (Indicator bacteria, pH); Chino Creek, Reach 1B (Nutrients, indicator bacteria, COD); Prado Basin Management Zone (pH); and Prado Park Lake (Nutrients, indicator bacteria) (Ontario, 2022a, Table 5.10-1).

***E. Groundwater***

The City of Ontario obtains its groundwater from the Chino Groundwater Basin. The Chino Basin is one of the largest groundwater basins in southern California and encompasses about 235 square miles of the Upper Santa Ana River watershed. It lies in portions of San Bernardino, Riverside, and Los Angeles counties. The Chino Basin has approximately 5 to 7 million acre-feet of water in storage and an estimated 1 million acre-feet of additional unused storage capacity. Prior to 1978, the Basin was in overdraft. After 1978, the Basin has been managed via adjudication by the Chino Basin Watermaster. The Chino Basin Watermaster has determined the safe yield for the basin and has assigned individual pumping allocations to each water purveyor to ensure that the total groundwater production does not exceed the safe yield. (Ontario, 2022a, p. 5.10-13)

Free water was not encountered during the drilling of any of the borings on the Project Site. Based on the lack of any water within the borings, and the moisture contents of the recovered soil samples, the static groundwater table is considered to have existed as a depth in excess of 30± feet at the time of the subsurface exploration. (SoCal Geotechnical, 2022a, p. 7)

According to the water level data obtained from the California Department of Water Resources Water Data Library website, the nearest monitoring well on record (identified as State Well Number: 01S06W29H001S) is located 3,400± feet southeast of the Project Site. Water level readings within this monitoring well indicate a high groundwater level of 277± feet below the ground surface in April 2019. (SoCal Geotechnical, 2022a, p. 7)



#### 4.8.2 REGULATORY SETTING

The following is a brief description of the federal, state, and local environmental laws and related regulations related to hydrology and water quality.

##### ***A. Federal Plans, Policies, and Regulations***

###### ***1. Clean Water Act***

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was substantially reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972. Under the CWA, the Environmental Protection Agency (EPA) has implemented pollution control programs such as setting wastewater standards for industry, and also has set water quality standards for all contaminants in surface waters. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained. EPA's National Pollutant Discharge Elimination System (NPDES) permit program controls discharges. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. (EPA, 2020e)

###### ***2. Federal Flood Insurance Program***

The U.S. Congress established the National Flood Insurance Program (NFIP) with the passage of the National Flood Insurance Act of 1968. The NFIP is a Federal program enabling property owners in participating communities to purchase insurance as a protection against flood losses in exchange for State and community floodplain management regulations that reduce future flood damages. Participation in the NFIP is based on an agreement between communities and the Federal Government. If a community adopts and enforces a floodplain management ordinance to reduce future flood risk to new construction in floodplains, the Federal Government will make flood insurance available within the community as a financial protection against flood losses. This insurance is designed to provide an insurance alternative to disaster assistance to reduce the escalating costs of repairing damage to buildings and their contents caused by floods. The Federal Insurance and Mitigation Administration (FIMA) within FEMA is responsible for administering the NFIP and administering programs that provide assistance for mitigating future damages from natural hazards. (FEMA, 2021a)

###### ***3. Executive Order 11988 – Floodplain Management***

Executive Order 11988 requires federal agencies to avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of flood plains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. In accomplishing this objective, "each agency shall provide leadership and shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health, and welfare, and to restore



and preserve the natural and beneficial values served by flood plains in carrying out its responsibilities" for the following actions: (FEMA, 2021b)

- Acquiring, managing, and disposing of federal lands and facilities;
- Providing federally-undertaken, financed, or assisted construction and improvements; and
- Conducting federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulation, and licensing activities.

***B. State Plans, Policies, and Regulations***

***1. Porter-Cologne Water Control Act***

The Porter-Cologne Act is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code § 13000 et seq.), the policy of the State is as follows: (SWRCB, 2014)

- That the quality of all the waters of the State shall be protected;
- That all activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason; and
- That the State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation.

The Porter-Cologne Act established nine Regional Water Boards (based on hydrogeologic barriers) and the State Water Board, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The State Water Board provides program guidance and oversight, allocates funds, and reviews Regional Water Boards decisions. In addition, the State Water Board allocates rights to the use of surface water. The Regional Water Boards have primary responsibility for individual permitting, inspection, and enforcement actions within each of 9 hydrologic regions. The State Water Board and Regional Water Boards have numerous non-point source (NPS) related responsibilities, including monitoring and assessment, planning, financial assistance, and management. (SWRCB, 2014)

The Regional Water Boards regulate discharges under the Porter-Cologne Act primarily through issuance of NPDES permits for point source discharges and waste discharge requirements (WDRs) for NPS discharges. Anyone discharging or proposing to discharge materials that could affect water quality (other than to a community sanitary sewer system regulated by an NPDES permit) must file a report of waste discharge. The State Water Resources Control Board (SWRCB) and the RWQCBs can make their own investigations or may require dischargers to carry out water quality investigations and report on water quality issues. The Porter-Cologne Act provides several options for enforcing WDRs and other orders, including cease and desist orders, cleanup and abatement orders, administrative civil liability orders, civil court actions, and criminal prosecutions. (SWRCB, 2014)



The Porter-Cologne Act also implements many provisions of the Clean Water Act, such as the NPDES permitting program. The Porter-Cologne Act also requires adoption of water quality control plans that contain the guiding policies of water pollution management in California. In addition, regional water quality control plans (basin plans) have been adopted by each of the Regional Water Boards and get updated as necessary and practical. These plans identify the existing and potential beneficial uses of waters of the State and establish water quality objectives to protect these uses. The basin plans also contain implementation, surveillance, and monitoring plans. (SWRCB, 2014) The Project Site is located within the Santa Ana River watershed and is under the jurisdiction of the Santa Ana RWQCB. The *Santa Ana River Basin Water Quality Control Plan* (updated June 2019) is the governing water quality plan for the region.

## 2. *California Water Code*

The California Water Code is the principal state law regulating water quality in California. Water quality provisions must be complied with as contained in numerous code sections including: 1) the Health and Safety Code for the protection of ground and surface waters from hazardous waste and other toxic substances; 2) the Fish and Game Code for the prevention of unauthorized diversions of any surface water and discharge of any substance that may be deleterious to fish, plant, animal, or bird life; 3) the Harbors and Navigation Code for the prevention of the unauthorized discharge of waste from vessels into surface waters; and 4) the Food and Agriculture Code for the protection of groundwater which may be used for drinking water supplies. The California Department of Fish and Wildlife (CDFW), through provisions of the Fish & Game Code (§§ 1601 - 1603) is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by CDFW. (CA Legislative Info, n.d.)

Surface water quality is the responsibility of the RWQCB, water supply and wastewater treatment agencies, and city and county governments. The principal means of enforcement by the RWQCB is through the development, adoption, and issuance of water discharge permits. RWQCB basin plans establish water quality objectives that are defined as the limits or levels of water quality constituents or characteristics for the reasonable protection of beneficial uses of water. (CA Legislative Info, n.d.)

## 3. *California Toxics Rule (CTR)*

The California Toxics Rule (CTR) fills gap in California's water quality standards necessary to protect human health and aquatic life beneficial uses. The CTR criteria are similar to those published in the National Recommended Water Quality Criteria. The CTR supplements, and does not change or supersede, the criteria that EPA promulgated for California waters in the National Toxics Rule (NTR). The human health NTR and CTR criteria that apply to drinking water sources (those water bodies designated in the Basin Plans as municipal and domestic supply) consider chemical exposure through consumption of both water and aquatic organisms (fish and shellfish) harvested from the water. For waters that are not drinking water sources (e.g., enclosed bays and estuaries), human health NTR and CTR criteria only consider the consumption of contaminated aquatic organisms. The CTR and NTR criteria, along with the beneficial use designations in the Basin Plans and the related implementation



policies, are the directly applicable water quality standards for toxic priority pollutants in California waters. (SWRCB, 2016, pp. 14-15)

#### 4. *CDFG Code Section 1600 et seq. (Lake- or Streambed Alteration Agreement Program)*

Fish and Game Code § 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following: (CDFW, n.d.)

- Substantially divert or obstruct the natural flow of any river, stream, or lake;
- Substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or
- Deposit debris, waste or other materials that could pass into any river, stream, or lake.

It should be noted that "any river, stream or lake" includes those that are episodic (they are dry for periods of time) as well as those that are perennial (they flow year-round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water. (CDFW, n.d.)

CDFW requires a Lake and Streambed Alteration (LSA) Agreement when it determines that the activity, as described in a complete LSA Notification, may substantially adversely affect existing fish or wildlife resources. An LSA Agreement includes measures necessary to protect existing fish and wildlife resources. CDFW may suggest ways to modify a project that would eliminate or reduce harmful impacts to fish and wildlife resources. Before issuing an LSA Agreement, CDFW must comply with CEQA. (CDFW, n.d.)

#### 5. *Watershed Management Initiative (WMI)*

The State and Regional Water Boards are currently focused on looking at entire watersheds when addressing water pollution. The Water Boards adopted the Watershed Management Initiative (WMI) to further their goals. The WMI establishes a broad framework overlying the numerous federal and State mandated priorities. As such, the WMI helps the Water Boards achieve water resource protection, enhancement and restoration while balancing economic and environmental impacts. (SWRCB, 2017) The integrated approach of the WMI involves three main ideas:

- Use water quality to identify and prioritize water resource problems within individual watersheds. Involve stakeholders to develop solutions.
- Better coordinate point source and nonpoint source regulatory efforts. Establish working relationships between staff from different programs.
- Better coordinate local, state, and federal activities and programs, especially those relating to regulations and funding, to assist local watershed groups. (SWRCB, 2017)



#### 6. *Sustainable Groundwater Management Act (SGMA)*

The 2014 Sustainable Groundwater Management Act (SGMA) requires governments and water agencies of high and medium priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans. The DWR categorizes the priority of groundwater basins. For critically over-drafted basins, that will be 2040. For the remaining high and medium priority basins, 2042 is the deadline. The SGMA also requires local public agencies and Groundwater Sustainability Agencies (GSAs) in high- and medium-priority basins to develop and implement Groundwater Sustainability Plans (GSPs) or Alternatives to GSPs. GSPs are detailed road maps for how groundwater basins will reach long term sustainability. (DWR, n.d.) (DWR, 2020)

#### 7. *SWRCB Trash Amendments*

On April 7, 2015, the SWRCB adopted an amendment to control trash that applies to the Water Quality Control Plan for Ocean Waters of California and the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California. They are collectively referred to as the “Trash Amendments.” The Trash Amendments do the following: (a) establish a narrative water quality objective for trash, (b) corresponding applicability, (c) establish a prohibition on the discharge of trash, (d) provide implementation requirements for permitted storm water and other discharges, (e) set a time schedule for compliance, and (f) provide a framework for monitoring and reporting requirements. The Trash Amendments apply to all surface waters of California and include a land-use-based compliance approach to focus trash controls on areas with high trash-generation rates. Areas such as high density residential, industrial, commercial, mixed urban, and public transportation stations are considered priority land uses. The Santa Ana RWQCB implements the statewide Trash Amendments through Water Code Section 13383 Orders that contain region specific requirements. There are two compliance tracks:

- Track 1. Permittees must install, operate, and maintain a network of certified full capture systems in storm drains that capture runoff from priority land uses.
- Track 2. Permittees must implement a plan with a combination of full capture systems, multi-benefit projects, institutional controls, and/or other treatment methods that have the same effectiveness as Track 1 methods. (SWRCB, 2022)

The Project would be required to comply with the latest State Trash Amendments and the MS4 Permit by installing the appropriate Full Capture System or equivalent.

#### **4.8.3 BASIS FOR DETERMINING SIGNIFICANCE**

Section IX of Appendix G to the CEQA Guidelines addresses typical adverse effects to hydrology and water quality, and includes the following threshold questions to evaluate the Project’s impacts on hydrology and water quality (OPR, 2019):



- a. *Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;*
- b. *Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;*
- c. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:*
  - i. *Result in substantial erosion or siltation on- or off-site;*
  - ii. *Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;*
  - iii. *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or*
  - iv. *Impede or redirect flood flows;*
- d. *In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation;*
- e. *Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

#### 4.8.4 IMPACT ANALYSIS

***Threshold a: Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?***

The Project Applicant would be required to comply with Section 402 of the Clean Water Act, which authorizes the NPDES permit program that covers point sources of pollution discharging to a water body. The NPDES program would require the Project Applicant and/or construction contractor to prepare a Stormwater Pollution Prevention Plan (SWPPP) and obtain authorization to discharge stormwater under a NPDES construction stormwater permit because the Project would result in construction on a site that is larger than 1 acre. The Project Applicant also would be required to comply with the California Porter-Cologne Water Quality Control Act (Section 13000 *et seq.*, of the California Water Code), which requires that comprehensive water quality control plans be developed for all waters within the State of California. The Project Site is located within the jurisdiction of the Santa Ana RWQCB.



**A. Construction-Related Water Quality Impacts**

Construction of the Project would include demolition, site preparation and grading, building construction, paving, utility installation, and architectural coating and landscaping, which have the potential to generate silt, debris, organic waste, chemicals, paints, and other solvents; should these materials come into contact with water that reaches the groundwater table or flows off-site, the potential exists for the Project's construction activities to adversely affect water quality. As such, short-term water quality impacts have the potential to occur during Project construction in the absence of any protective or avoidance measures.

Pursuant to the requirements of the Santa Ana RWQCB and Ontario Municipal Code Title 6, Chapter 6, Article IV and V, the Project Applicant would be required to obtain coverage under the State's General Construction Storm Water Permit for construction activities (NPDES permit). The NPDES permit is required for all development projects that include construction activities, such as clearing, grading, and/or excavation, that disturb at least one (1) acre of total land area. In addition, the Project Applicant would be required to comply with the Santa Ana RWQCB's *Santa Ana River Basin Water Quality Control Program*. Compliance with the NPDES permit and the *Santa Ana River Basin Water Quality Control Program* involves the preparation and implementation of a SWPPP for construction-related activities. The SWPPP will specify the Best Management Practices (BMPs) that the Project's construction contractors would be required to implement during construction activities to ensure that potential pollutants of concern are prevented, minimized, and/or otherwise appropriately treated prior to being discharged from the subject property. Examples of BMPs that may be utilized during construction include, but are not limited to, sandbag barriers, geotextiles, storm drain inlet protection, sediment traps, rip rap soil stabilizers, and hydroseeding. Pursuant to Ontario Municipal Code Title 6, Chapter 12, the Project Applicant also would be required to implement erosion control measures to prevent soil erosion by wind. Mandatory compliance with the SWPPP and erosion control measures would ensure that the Project construction does not violate any water quality standards or waste discharge requirements. Therefore, water quality impacts associated with construction activities would be less than significant.

**B. Post-Development Water Quality Impacts**

The Project Applicant would be required to prepare and implement a Water Quality Management Plan (WQMP) to demonstrate compliance with the City's NPDES municipal stormwater permit, and to minimize the release of potential waterborne pollutants, including pollutants of concern for downstream receiving waters. The WQMP is a site-specific post-construction water quality management program designed to address the potential release of pollutants of concern for downstream receiving waters and other water pollutants through the use of BMPs. Implementation of the WQMP ensures on-going, long-term protection of the watershed basin. The preliminary WQMP for the Project was prepared by Westland and is included as *Technical Appendix H2* to this EIR. As identified in the WQMP, the Project is designed to include underground stormwater retention chambers, source control BMPs, and treatment control BMPs to minimize, prevent, and/or otherwise appropriately treat stormwater runoff flows for pollutants of concern before they are discharged into the municipal storm drain system (Westland, 2022b, pp. 4 to 6). Compliance with the preliminary WQMP would be





required as a condition of Project approval pursuant to Ontario Municipal Code Title 6, Chapter 6, Article V, and long-term maintenance of on-site BMPs would be required to ensure their long-term effectiveness. Therefore, water quality impacts associated with long-term operational activities would be less than significant.

Additionally, pursuant to Ontario Municipal Code Title 6, Chapter 6, Article IV, all businesses that own or operate facilities described in 40 CFR 122.26(b)(14)(i)-(xi) are required to obtain coverage under the State's General Permit for Discharges of Stormwater Associated with Industrial Activities, at least 14 days prior to the startup of business activities. All listed businesses are required to submit a completed Notice of Intent (NOI) form, site map and application fee to the SWRCB. The SWRCB also requires the listed businesses to prepare a SWPPP, retain a copy of the SWPPP on site and comply with all the requirements of the general permit. The Project would be required to prepare a SWPPP for operational activities and implement a long-term water quality sampling and monitoring program or receive an exemption. Because the permit is dependent upon a detailed accounting of all operational activities and procedures, and the Project's building users and their operational characteristics are not known at this time, details of the operational SWPPP (including BMPs) or potential exemption to the SWPPP operational activities requirement cannot be determined with certainty at this time. However, based on the performance requirements of the NPDES Industrial General Permit, the Project's mandatory compliance with all applicable water quality regulations would further reduce potential water quality impacts during long-term operation. Additionally, the Project would comply with the State Trash State Trash Amendments and the MS4 Permit by installing the appropriate Full Capture System or equivalent.

Based on the foregoing analysis, the Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during long-term operation. Impacts would be less than significant.

***Threshold b: Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?***

Water service to the Project Site would be provided by the Ontario Municipal Utilities Company (OMUC). As depicted in Figure 3-7, *Proposed Utility Plan*, water would be accommodated via proposed water lines that would extend from the southeastern and southwestern corners of the building to an existing 12-inch water main at East Airport Drive. The Project Applicant does not propose the use of any wells or other groundwater extraction activities. Therefore, the Project would not directly draw water from the groundwater table. Implementation of the Project has no potential to substantially deplete or decrease groundwater supplies and the Project's impact to groundwater supplies would be less than significant.

Development of the Project would slightly increase impervious surface coverage on the Project Site, which would, in turn, slightly reduce the amount of water percolating down into the underground aquifer that underlies the Project Site and a majority of the City and surrounding areas (i.e., Chino



Groundwater Basin). Percolation is just one of several sources of groundwater recharge for the Subbasin. A majority of the groundwater recharge in the Chino Groundwater Basin occurs within percolation basins (“recharge basins”) that are located in the northern and western portions of the Basin (CBWM, 2021, Exhibit 3-5). The Project Site is located in the central portion of the Chino Groundwater Basin and would not physically impact any of the major groundwater recharge facilities in the Basin. Therefore, the Project would not result in substantial, adverse effects to local groundwater levels. Additionally, the Project includes design features that would maximize the percolation of on-site stormwater runoff into the groundwater basin, such as underground infiltration chambers and permeable landscape areas. Accordingly, buildout of the Project with these design features would not interfere substantially with groundwater recharge or impede sustainable groundwater management of the Chino Groundwater Basin. Based on the foregoing information, the Project would not interfere substantially with groundwater recharge.

For the reasons stated above, the Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project would impede sustainable groundwater management of the basin. Impacts would be less than significant.

***Threshold c: Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: result in substantial erosion or siltation on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impeded or redirect flood flows?***

The proposed Project entails redevelopment of the Project Site with one warehouse building supported by drive aisles and parking areas for passenger vehicles and trailers. Docking areas are located south-facing façade of the proposed building. Landscape areas are proposed around the perimeter of the Site. The proposed development would consist of approximately 89% of impervious areas.

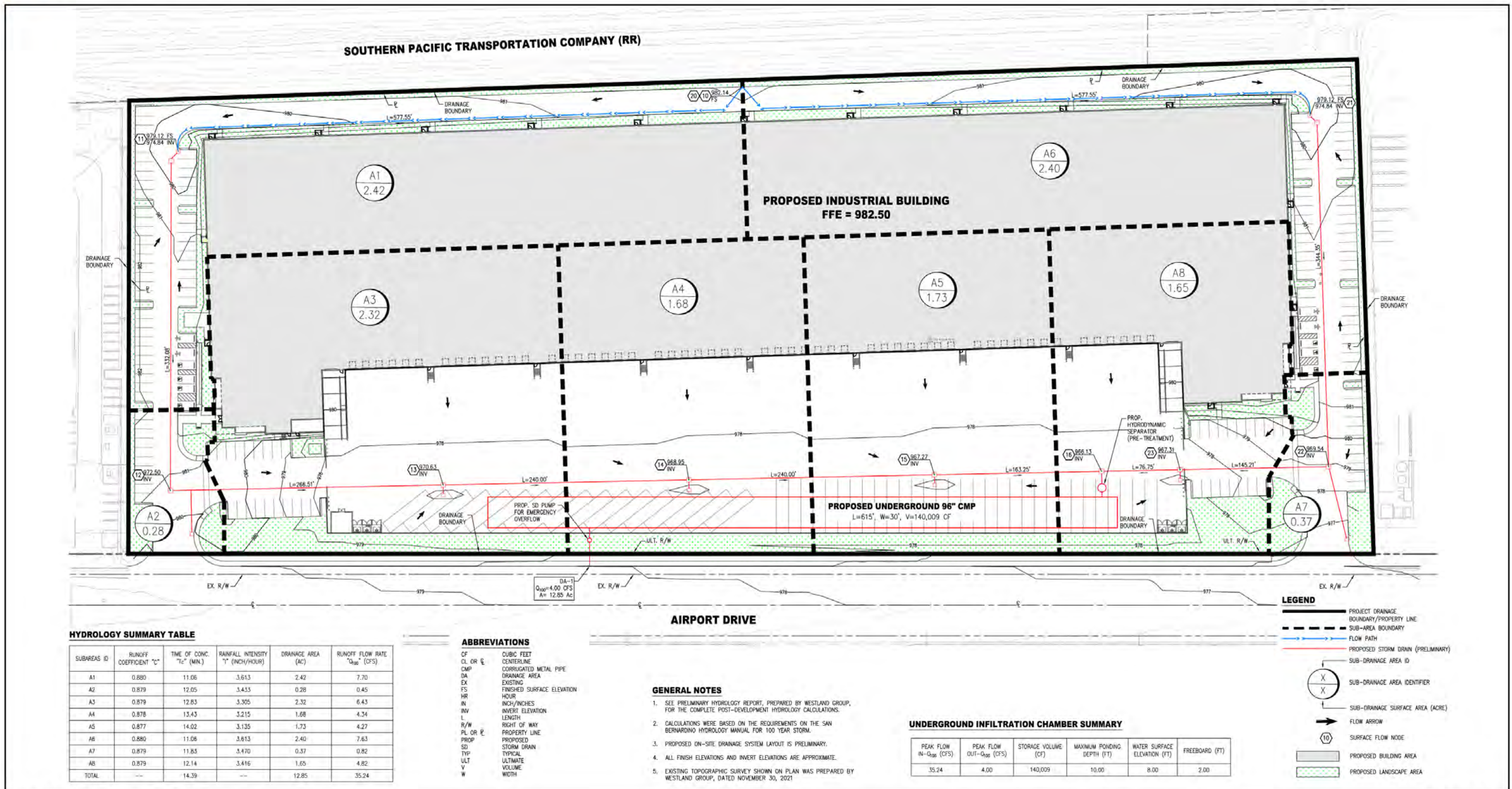
The proposed development would maintain the same drainage pattern as the existing condition. Stormwater is designed to sheet flow from north to south and be captured by proposed onsite catch basins. The proposed on-site storm drain system is designed to convey the flow into a proposed underground infiltration chamber. This system is designed to meet project’s water quality requirements and provide sufficient storage to meet the 100-year storm hydrology requirement. In a large storm event, stormwater would exit the underground chamber system via pipes and be pumped out through a proposed parkway drain on Airport Drive. Runoff would sheet flow east along Airport Drive and discharge into the existing catch basin to maintain the same point of discharge as the existing condition. (Westland, 2022a, p. 2) See Figure 4.8-1, *Proposed Post-Development Hydrology Map*, for the post-development drainage map.



The following analysis evaluates the potential for Project-related development activities to adversely affect water quality or cause or exacerbate local flooding.

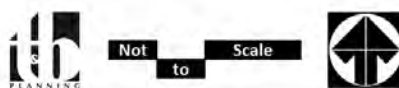
**A. Erosion and Siltation**

The Project would not alter the existing drainage pattern. Pursuant to the requirements of the State Water Resources Control Board, the Project Applicant would be required to obtain coverage under the State's General Construction Storm Water Permit for construction activities (NPDES permit). The NPDES permit is required for all development projects, including the Project, that include construction activities, such as clearing, grading, and/or excavation, that disturb at least 1 acre of total land area. In addition, the Project would be required to comply with the Santa Ana RWQCB's Santa Ana River Basin Water Quality Control Program. Compliance with the NPDES permit and the Santa Ana River Basin Water Quality Control Program involves the preparation and implementation of a SWPPP for construction-related activities. The SWPPP will specify the BMPs that would be required to be implemented during construction activities to ensure that waterborne pollution – including erosion/siltation – is prevented, minimized, and/or otherwise appropriately treated prior to surface runoff being discharged from the subject property. Examples of BMPs that may be utilized during construction include, but are not limited to, sandbag barriers, geotextiles, storm drain inlet protection, sediment traps, rip rap soil stabilizers, and hydro-seeding. Lastly, the Project would be required to implement erosion control measures pursuant to Ontario Municipal Code Title 6, Chapter 12, and to ensure compliance with SCAQMD Rule 403. Mandatory compliance with the SWPPP and the City-required erosion control measures would ensure that the Project's implementation does not violate any water quality standards or waste discharge requirements during construction activities. Based on the foregoing information, erosion and sedimentation impacts associated with Project construction activities would be less than significant.



Source(s): WestLAND Group, Inc. (03-23-2022)

Figure 4.8-2



Lead Agency: City of Ontario

Proposed Post-Development Hydrology Map

SCH No. 2022090006



During operation of the Project, the Project Applicant would be required to prepare and implement a WQMP to demonstrate compliance with the City’s NPDES municipal stormwater permit, and to minimize the release of potential waterborne pollutants, including pollutants of concern for downstream receiving waters. The WQMP is a site-specific post-construction water quality management program designed to address the potential release of pollutants of concern for downstream receiving waters and other water pollutants through the use of BMPs. Implementation of the WQMP ensures on-going, long-term protection of the watershed basin. The PWQMP for the Project was prepared by Westland and is included as *Technical Appendix H2* to this EIR. Because the Project Applicant would be required to utilize erosion and sediment control measures to preclude substantial, long-term soil erosion and loss of topsoil, Project operation would result in less-than-significant impacts related to soil erosion and sedimentation.

**B. Stormwater Runoff Discharge**

Based on the 100-year rational method analysis presented in Table 4.8-1, *Pre-Development Hydrology Summary Table* and Table 4.8-2, *Post-Development Hydrology Summary Table*, the post-development flow rate within the disturbed area decreased compare to the pre-development flow rate. Furthermore, the post- development runoff volume decreased compare to the pre-development runoff volume. The decrease in flow rate and runoff volume was a result from a decrease in impervious areas.

**Table 4.8-1 Pre-Development Hydrology Summary Table**

Storm Event	Area (Acres)	Tc (min.)	Intensity (in/hr)	Flow Rate (cfs) (Rational Method)	Volume(cf) (Unit Hydrograph)
2-Year	12.85	14.77	1.71	14.42	--
100-Year		14.20	3.11	38.03	241,431

Source: (Westland, 2022a, Table 4.2.1)

**Table 4.8-2 Post-Development Hydrology Summary Table**

Storm Event	Area (Acres)	Tc (min.)	Intensity (in/hr)	Flow Rate (cfs) (Rational Method)	Volume(cf) (Unit Hydrograph)
2-Year	12.85	12.60	1.20	12.92	--
100-Year		14.39	309	35.24	237,145

Source: (Westland, 2022a, Table 4.2.2)

The proposed Project would not create or contribute runoff that would exceed the capacity of the existing downstream storm drain system. At buildout, the Project would discharge approximately 35.24 cubic feet per second (cfs) to the existing storm drain system, which is an approximately 7 percent decrease relative to existing conditions. Furthermore, the underground infiltration system is designed to accommodate the 100-year storm event and would not exceed the flow rates and runoff volumes generated by the existing condition. Once construction is complete, there would not be any substantial



increase in flood boundaries, levels, or frequencies in any areas outside the development. (Westland, 2022a, p. 4)

Based on the foregoing information, the Project would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. Impacts would be less than significant.

***C. Stormwater Drainage System Capacity & Polluted Runoff***

As described above, buildout of the Project would reduce the cfs of runoff discharged into the existing municipal storm drain system during peak storm events relative to existing conditions. Accordingly, the Project would not create or contribute runoff that would exceed the capacity of any existing storm water drainage system, and impacts would be less than significant.

As discussed in the response to Threshold “a” and this Threshold (refer to sub-item “A”), the Project’s construction contractors would be required to comply with a SWPPP and the Project’s owner or operator would be required to comply with the WQMP to ensure that Project-related construction activities and operational activities do not result in substantial amounts of polluted runoff. Additionally, the Project would comply with the State Trash Amendments and the MS4 Permit by installing the appropriate Full Capture System or equivalent. The Project would not result in substantial additional sources of polluted runoff and impacts would be less than significant.

***D. Flood Flows***

The Project Site is not located within a special flood hazard area (FEMA, 2016). Accordingly, the Project Site is not expected to be inundated by flood flows during the lifetime of the Project and the Project would not impede flood flows. No impact would occur.

***Threshold d: Would the Project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?***

The Project Site is located approximately 38 miles northeast of the Pacific Ocean; consequently, there is no potential for the Project Site to be impacted by a tsunamis as tsunamis typically only reach up to a few miles inland. The Project Site also is not subject to flooding hazards associated with a seiche because the nearest body of water is the San Antonio Dam, approximately 10 miles to the north of the Project Site, which is too far away from the subject property to impact the property with a seiche (Google Earth, 2021). According to The Ontario Plan 2050 EIR, the Project Site is not located within the potential inundation from San Antonio Dam; however, the Project Site is adjacent to an area with potential inundation from debris basins (Ontario, 2022a, Figure 5.10-3). The probability of dam failure is very low, and Ontario has never been impacted by a major dam failure. In addition, dam owners are required to maintain emergency action plans that include procedures for damage assessment and emergency warnings. (Ontario, 2022a, p. 5.10-26) Accordingly, impacts would be less than significant.



***Threshold e: Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?***

As discussed under Threshold “a” above, the Project Site is located within the Santa Ana River Basin and Project-related construction and operational activities would be required to comply with the Santa Ana RWQCB’s *Santa Ana River Basin Water Quality Control Plan* by preparing and adhering to a SWPPP and WQMP. As also discussed in Threshold “a” above, implementation of the Project would not conflict with or obstruct the *Santa Ana River Basin Water Quality Control Plan* and impacts would be less than significant.

The Project Site is located within the Chino Groundwater Basin, which is an adjudicated groundwater basin. Adjudicated basins, like the Chino Groundwater Basin, are exempt from the 2014 Sustainable Groundwater Management Act (SGMA) because such basins already operate under a court-ordered management plan to ensure the long-term sustainability of the basin. No component of the Project would obstruct with or prevent implementation of the management plan for the Chino Groundwater Basin. As such, the Project’s construction and operation would not conflict with any sustainable groundwater management plan. Impacts would be less than significant.

#### **4.8.5 CUMULATIVE IMPACT ANALYSIS**

The cumulative impact analysis considers construction and operation of the Project in conjunction with other development projects in the vicinity of the Project Site and projects located in the Santa Ana River Basin and Chino Groundwater Basin.

##### ***A. Water Quality***

Project construction and the construction of other projects in the cumulative study area would have the potential to contribute waterborne pollution, including erosion and siltation, to the Santa Ana River Watershed. Pursuant to the requirements of the State Water Resources Control Board and the Santa Ana RWQCB, all construction projects that disturb 1 or more acres of land area are required to obtain coverage for construction activities under the State’s General Construction NPDES Permit. In order to obtain coverage, an effective Site-specific SWPPP is required to be developed and implemented. The SWPPP must identify potential on-site pollutants and identify an effective combination of erosion control and sediment control measures to reduce or eliminate discharge of pollutants to surface waters. In addition, the Project Applicant and all cumulative developments in the Santa Ana River Basin would be required to comply with the Santa Ana RWQCB’s *Santa Ana River Basin Water Quality Control Program*, which establishes water quality standards for ground and surface waters of the region. Compliance with these mandatory regulatory requirements, would ensure that development projects within the Santa Ana River watershed, including the proposed Project, would not contribute substantially to water quality impairments during construction.

Operational activities on the Project Site would be required to comply with the Project’s WQMP to minimize the amount of waterborne pollution, including erosion and sediment, discharged from the Site. Other development projects within the watershed would similarly be required by law to prepare



and implement Site-specific WQMPs to ensure that runoff does not substantially contribute to water quality violations. Accordingly, operation of the Project would not contribute to cumulatively-considerable water quality effects.

***B. Groundwater Supplies and Management***

The Project incorporates design features that would allow surface runoff to infiltrate into the groundwater basin. Other development projects would similarly be required by applicable lead agencies to incorporate design features that facilitate percolation (e.g., through minimum landscaped/permeable area requirements, water quality/detention basins, infiltration basins). Also, as previously noted, implementation of the Project would not result in substantial adverse effects to local groundwater supplies or groundwater recharge. Thus, no component of the Project would obstruct with or prevent implementation of the management plan for the Chino Groundwater Basin, and other development projects within the Chino Groundwater Basin would be prohibited from any activity that would endanger the health and sustainability of the groundwater basin. Based on the lack of impacts to groundwater, the provision of design measures that would facilitate percolation, and compliance with applicable Chino Groundwater Basin management plans, cumulative development would not result in a considerable, adverse effect to local groundwater supplies.

***C. Flooding***

Construction of the Project and other development projects within the Santa Ana River watershed would be required to comply with federal, State, and local regulations and applicable regional and local master drainage plans in order to mitigate flood hazards both on- and off-site. Compliance with federal, State, and local regulations and applicable drainage plans would require development sites to be protected from flooding during peak storm events (i.e., 100-year storm) and also would not allow development projects to expose downstream properties to increased flooding risks during peak storm events. In addition, future development proposals within the Santa Ana River Basin would be required to prepare hydrologic and hydraulic calculations, subject to review and approval by the responsible City Engineer, to demonstrate that substantial on- and/or off-site flood hazards would not occur. As discussed under the response to Threshold “c,” the Project is designed to ensure that runoff from the Project Site during peak storm events is reduced relative to existing conditions. Because the Project and all other developments throughout the Santa Ana River Basin, would need to comply with federal, State, and local regulations to ensure that stormwater discharges do not substantially exceed existing volumes or exceed the volume of available conveyance infrastructure, a substantial cumulative impact related to flood hazards would not occur.

Additionally, the Project Site is not located within a special flood hazard area or in an area subject to inundation. Accordingly, development on the Project Site would have no potential to impede or redirect flood flows and a cumulatively-considerable impact would not occur.





#### 4.8.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold a: Less-than-Significant Impact. The Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Adherence to a SWPPP and WQMP is required as part of the Project's implementation to address construction- and operational-related water quality.

Threshold b: Less-than-Significant Impact. The Project would not physically impact any of the major groundwater recharge facilities in the Chino Groundwater Basin. The Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project would impede sustainable groundwater management of the Basin.

Threshold c: Less-than-Significant Impact. The Project would be required to comply with applicable water quality regulatory requirements to minimize erosion and siltation. Additionally, the Project would not result in flooding on- or off-site or impede/redirect flood flows. Lastly, the Project would not create or contribute runoff that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

Threshold d: Less-than-Significant Impact. The Project Site would not be subject to inundation from tsunamis or seiches. The Project Site is adjacent to an area with potential inundation from debris basins. The probability of dam failure is very low, and Ontario has never been impacted by a major dam failure. In addition, dam owners are required to maintain emergency action plans that include procedures for damage assessment and emergency warnings.

Threshold e: Less-than-Significant Impact. The Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

#### 4.8.7 MITIGATION

Impacts would be less than significant; therefore, mitigation is not required.



## 4.9 NOISE

This Subsection addresses the environmental issue of noise, including existing noise levels in the Project area and the Project's potential to introduce new or elevated sources of noise. The analysis contained herein incorporates information contained in a technical report prepared by Urban Crossroads, Inc., titled "5355 East Airport Drive Noise Impact Analysis" (noise analysis) and dated August 3, 2022 (Urban Crossroads, 2022e). The report is included as *Technical Appendix I* to this EIR. Refer to Section 7.0, *References*, for a complete list of reference sources used in the analysis presented in this Subsection.

### 4.9.1 NOISE FUNDAMENTALS

#### A. Noise Definitions

Noise is simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes physical harm, or when it has adverse effects on health. Because the range of sound that the human ear can detect is large, the scale used to measure sound intensity is based on multiples of 10, the logarithmic scale. The unit of measure to describe sound intensity is the decibel (dB). A sound increase of 10 dB represents a ten-fold increase in sound energy and is perceived by the human ear as being roughly twice as loud. A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise sources by discriminating against very low and very high frequencies of the audible spectrum (i.e., frequencies that are not audible to the human ear). The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at a distance of three feet is roughly 60 dBA, while a jet engine is 110 dBA at approximately 100 feet (Urban Crossroads, 2022e, pp. 7-8)

#### B. Noise Descriptors

Environmental noise descriptors are generally based on averages, rather than instantaneous, noise levels. The most used noise descriptor is the equivalent level ( $L_{eq}$ ). Equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level ( $L_{eq}$ ) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period and is commonly used to describe the "average" noise levels within the environment.

Peak hour or average noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level (CNEL), representing a composite 24-hour noise level is utilized. The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time-of-day corrections require the addition of 5 decibels to dBA  $L_{eq}$  sound levels in the evening from 7:00 p.m. to 10:00 p.m., and the addition of 10 decibels to dBA  $L_{eq}$  sound levels at night between 10:00 p.m. and 7:00 a.m. These additions are made to account for the noise sensitive time periods during the evening and night hours when noise can become more intrusive. CNEL does not represent the actual sound level heard at any time, but rather represents the total sound exposure. The



City of Ontario relies on the 24-hour CNEL level to assess land use compatibility with transportation related noise sources (Urban Crossroads, 2022e, p. 8).

### ***C. Sound Propagation***

When sound propagates over a distance, it changes in level and frequency content. The manner in which noise reduces with distance depends on geometric spreading, ground absorption, atmospheric effects, and shielding.

#### ***1. Geometric Spreading***

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source (Urban Crossroads, 2022e, p. 8).

#### ***2. Ground Absorption***

The propagation path of noise from a highway to a receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 ft. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source (Urban Crossroads, 2022e, pp. 8-9).

#### ***3. Atmospheric Effects***

Receivers located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects (Urban Crossroads, 2022e, p. 9).

#### ***4. Shielding***

A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by shielding depends on the size of



the object and the frequency content of the noise source. Shielding by trees and other such vegetation typically only has an “out of sight, out of mind” effect. That is, the perception of noise impact tends to decrease when vegetation blocks the line-of-sight to nearby residents. However, for vegetation to provide a substantial, or even noticeable, noise reduction, the vegetation area must be at least 15 feet in height, 100 feet wide and dense enough to completely obstruct the line-of-sight between the source and the receiver. This size of vegetation may provide up to 5 dBA of noise reduction. The Federal Highway Administration (FHWA) does not consider the planting of vegetation to be a noise abatement measure (Urban Crossroads, 2022e, p. 9).

***D. Response to Noise***

Approximately 16 percent of the population has a very low tolerance for noise and will object to any noise not of their own making. Consequently, even in the quietest environment, some complaints will occur. 20 to 30 percent of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given environment. Despite this variability in behavior on an individual level, the population as a whole can be expected to exhibit the following responses to changes in noise levels: an increase of 1 dBA cannot be perceived except in carefully controlled laboratory experiments; a change of 3 dBA is considered “barely perceptible;” and a change of 5 dBA is considered “readily perceptible.” (Urban Crossroads, 2022e, p. 10)

***E. Vibration***

Vibration is the periodic oscillation of a medium or object. Sources of groundborne vibration include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, groundborne vibrations may be described by amplitude and frequency. Vibration is often described in units of velocity (inches per second) and decibels (dB) and is denoted as VdB.

The background vibration-velocity level in residential areas is generally 50 VdB. Groundborne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels (Urban Crossroads, 2022e, p. 11).

**4.9.2 EXISTING NOISE CONDITIONS**

***A. Existing Study Area Ambient Noise Conditions***

Urban Crossroads recorded 24-hour noise readings at 4 locations in the area of sensitive noise receivers nearest to the Project Site, which are on the opposite side of I-15 and I-10 from the Project Site, on March 8, 2022. The noise measurement locations are identified in Figure 4.9-1, *Noise Measurement Locations*. The results of the existing noise level measurements are summarized below. Noise measurement worksheets for the hourly noise levels and the minimum and maximum observed noise levels at each measurement location are provided in the noise analysis (refer to *Technical Appendix D*). In general, the existing background ambient noise levels in the Project area are dominated by traffic



noise associated with automobiles and truck traffic on the local arterial roadway network. It should be noted that hotel uses are generally not considered sensitive receptors since occupants are temporary and transient, but for the purpose of a conservative analysis, hotels are considered sensitive receptors for the analysis of this Project.

- Location L1 represents the noise levels located northwest of the Project Site near Ayres Hotel Ontario Mills Mall at 4395 Ontario Mills Parkway. The noise level measurements collected show an average daytime noise level calculated to be 58.4 dBA  $L_{eq}$  and an average nighttime noise level calculated to be 59.0 dBA  $L_{eq}$  at Location L1.
- Location L2 represents the noise levels located northwest of the Project Site near Hampton Inn & Suites Ontario at 4500 Ontario Mills Parkway. The noise level measurements collected show an average daytime noise level calculated to be 61.7 dBA  $L_{eq}$  and an average nighttime noise level calculated to be 61.3 dBA  $L_{eq}$  at Location L2.
- Location L3 represents the noise levels located northwest of the Project Site near Country Inn & Suites by Radisson, Ontario at Ontario Mills at 4674 Ontario Mills Parkway. The noise level measurements collected show an average daytime noise level calculated to be 67.1 dBA  $L_{eq}$  and an average nighttime noise level calculated to be 62.2 dBA  $L_{eq}$  at Location L3.
- Location L4 represents the noise levels located northwest of the Project Site near Hyatt Place Ontario/Rancho Cucamonga at 4760 Mills Circle. The noise level measurements collected show an average daytime noise level calculated to be 69.8 dBA  $L_{eq}$  and an average nighttime noise level calculated to be 68.2 dBA  $L_{eq}$  at Location L4. (Urban Crossroads, 2022e, p. 24)

#### ***B. Existing Airport Noise***

The Project Site is located approximately 2.7 miles east of the Ontario International Airport (ONT). This places the Project Site within the ONT Airport Influence Area according to Policy Map 2-1 of the Ontario International Airport Land Use Compatibility Plan (ONT ALUCP). Within the ONT Airport Influence Area, most of the Project Site is located outside the 65 dB CNEL airport noise impact zone. (Urban Crossroads, 2022e, p. 16)

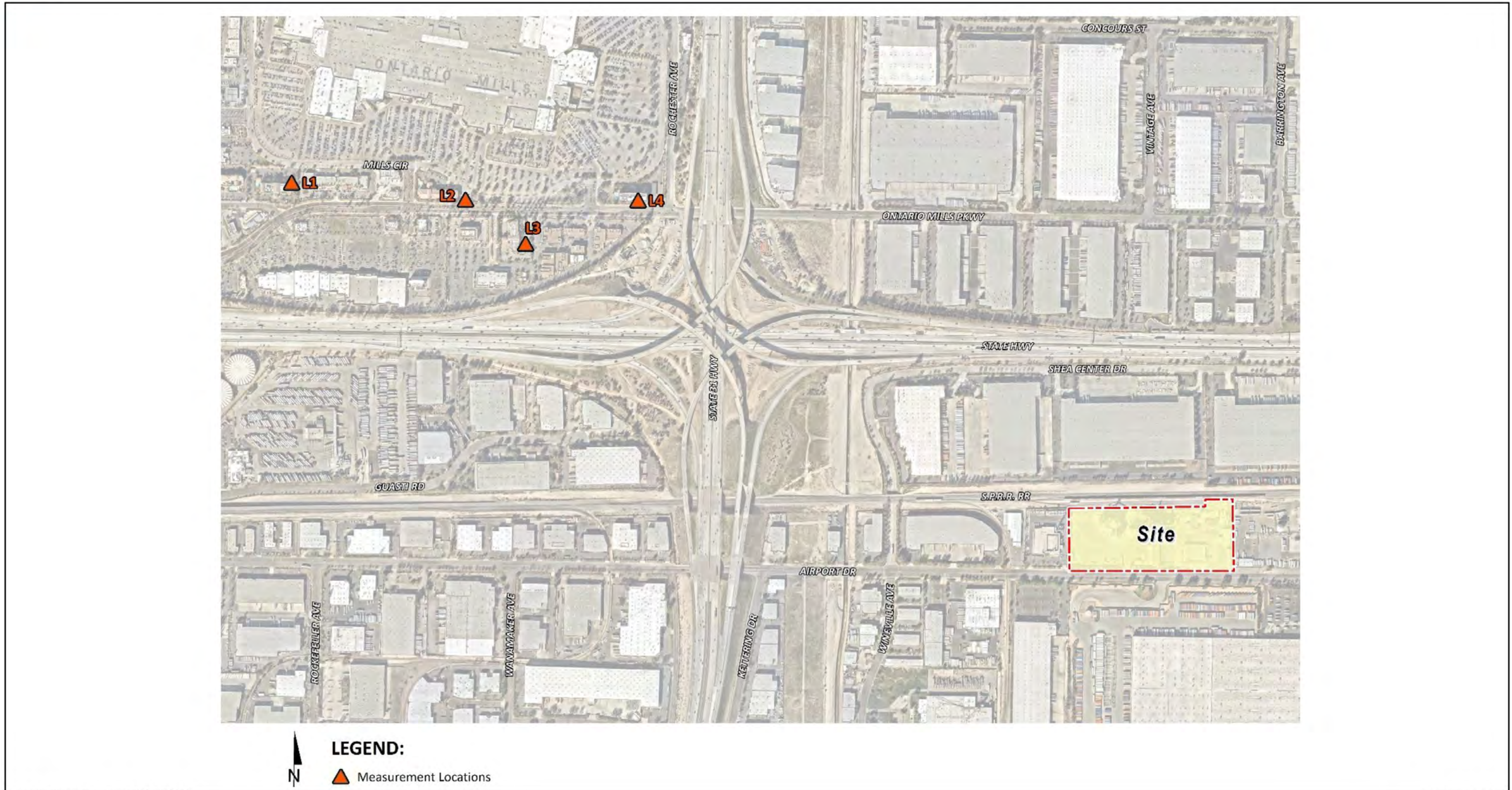
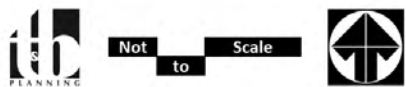


Figure 4.9-1





### 4.9.3 REGULATORY SETTING

The following is a brief description of the federal, state, and local environmental laws and related noise-related regulations.

#### A. Federal Plans, Policies, and Regulations

##### 1. *Noise Control Act of 1972*

The Noise Control Act of 1972 establishes a national policy to promote an environment for all Americans free from noise that jeopardizes their health and welfare. The Act also serves to 1) establish a means for effective coordination of Federal research and activities in noise control; 2) authorize the establishment of Federal noise emission standards for products distributed in commerce; and 3) provide information to the public respecting the noise emission and noise reduction characteristics of such products. (EPA, 2021b)

While primary responsibility for control of noise rests with State and local governments, Federal action is essential to deal with major noise sources in commerce, control of which require national uniformity of treatment. The Environmental Protection Agency (EPA) is directed by Congress to coordinate the programs of all Federal agencies relating to noise research and noise control. (EPA, 2021b)

##### 2. *Federal Transit Administration*

The Federal Transit Administration (FTA) published a *Noise and Vibration Impact Assessment (NVIA)*, which provides guidance for preparing and reviewing the noise and vibration sections of environmental documents. In the interest of promoting quality and uniformity in assessments, the manual is used by project sponsors and consultants in performing noise and vibration analyses for inclusion in environmental documents. The manual sets forth the methods and procedures for determining the level of noise and vibration impact resulting from most federally-funded transit projects and for determining what can be done to mitigate such impact. (FTA, 2006, p. 1-1)

The *NVIA* also establishes criteria for acceptable ground-borne vibration, which are expressed in terms of root mean square (rms) velocity levels in decibels and the criteria for acceptable ground-borne noise are expressed in terms of A-weighted sound levels. As shown in Table 4.9-1, *Ground-Borne Vibration and Ground-Borne Noise Impact Criteria for General Assessment*, the FTA identifies three categories of land uses and provides Ground-Based Vibration (GBV) and Ground-Based Noise (GBN) criteria for each category of land use. (FTA, 2006, pp. 8-3 and 8-4)

**Table 4.9-1 Ground-Borne Vibration and Ground-Borne Noise Impact Criteria for General Assessment**

Land Use Category	GBV Impact Levels (VdB re 1 micro-inch /sec)			GBN Impact Levels (dB re 20 micro Pascals)		
	Frequent Events <sup>1</sup>	Occasional Events <sup>2</sup>	Infrequent Events <sup>3</sup>	Frequent Events <sup>1</sup>	Occasional Events <sup>2</sup>	Infrequent Events <sup>3</sup>
<b>Category 1:</b> Buildings where vibration would interfere with interior operations.	65 VdB <sup>4</sup>	65 VdB <sup>4</sup>	65 VdB <sup>4</sup>	N/A <sup>4</sup>	N/A <sup>4</sup>	N/A <sup>4</sup>
<b>Category 2:</b> Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB	35 dBA	38 dBA	43 dBA
<b>Category 3:</b> Institutional land uses with primarily daytime use.	75 VdB	78 VdB	83 VdB	40 dBA	43 dBA	48 dBA

**Notes:**

1. "Frequent Events" is defined as more than 70 vibration events of the same source per day. Most rapid transit projects fall into this category.
2. "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day. Most commuter trunk lines have this many operations.
3. "Infrequent Events" is defined as fewer than 30 vibration events of the same kind per day. This category includes most commuter rail branch lines.
4. This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the HVAC systems and stiffened floors.
5. Vibration-sensitive equipment is generally not sensitive to ground-borne noise.

Source: (FTA, 2006, Table 8-1)

### 3. Federal Highway Administration

The FHWA is the agency responsible for administering the Federal-aid highway program in accordance with Federal statutes and regulations. The FHWA developed the noise regulations as required by the Federal-Aid Highway Act of 1970 (Public Law 91-605, 84 Stat. 1713). The regulation, Title 23 of the United States Code of Federal Regulations Part 772 *Procedures for Abatement of Highway Traffic Noise and Construction Noise*, applies to highway construction projects where a State department of transportation has requested Federal funding for participation in the project. The regulation requires the highway agency to investigate traffic noise impacts in areas adjacent to federally-aided highways for proposed construction of a highway on a new location or the reconstruction of an existing highway to either significantly change the horizontal or vertical alignment or increase the number of through-traffic lanes. If the highway agency identifies impacts, it must consider abatement. The highway agency must incorporate all feasible and reasonable noise abatement into the project design. (FHWA, 2017)

The FHWA regulations for mitigation of highway traffic noise in the planning and design of federally aided highways are contained in 23 CFR 772. The regulations contain noise abatement criteria, which





represent the upper limit of acceptable highway traffic noise for different types of land uses and human activities. The regulations do not require meeting the abatement criteria in every instance. Rather, they require highway agencies make every reasonable and feasible effort to provide noise mitigation when the criteria are approached or exceeded. Compliance with the noise regulations is a prerequisite for the granting of Federal-aid highway funds for construction or reconstruction of a highway. (FHWA, 2017)

#### **4. Construction-Related Hearing Conservation**

The Occupational Safety and Health Administration (OSHA) hearing conservation program is designed to protect workers with significant occupational noise exposures from hearing impairment even if they are subject to such noise exposures over their entire working lifetimes. Standard 29 CFR, Part 1910 indicates the noise levels under which a hearing conservation program is required to be provided to workers exposed to high noise levels. (OSHA, 2002)

Note: This analysis does not evaluate the noise exposure of construction workers within the Project Site based on CEQA requirements, and instead, evaluates the Project-related construction noise levels at the nearby sensitive receiver locations in the Project study area. Further, periodic exposure to high noise levels in short duration, such as Project construction, is typically considered an annoyance and not impactful to human health. It would take several years of exposure to high noise levels to result in hearing impairment.

#### **B. State Plans, Policies, and Regulations**

##### **1. State of California Noise Requirements**

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city in the State adopt a General Plan that includes a Noise Element, which is to be prepared according to guidelines adopted by the Governor's Office of Planning and Research (OPR). The purpose of the Noise Element is to limit the exposure of the community to excessive noise levels.

##### **2. Building Standards Code**

The State of California's noise insulation standards are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, and the California Building Standards Code. These noise standards are applied to new construction in California for the purpose of controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are developed near major transportation noise sources, and where such noise sources create an exterior noise level of 60 dBA CNEL or higher. Acoustical studies that accompany building plans for noise-sensitive land uses must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL. (BSC, n.d.)



### 3. *OPR General Plan Guidelines*

Though not adopted by law, the 2017 California General Plan Guidelines, published by OPR, provides guidance for local agencies in preparing or updating General Plans. The Guidelines provide direction on the required Noise Element portion of the General Plans. The purpose of the Noise Element is to limit the exposure of the community to excessive noise levels. The OPR Guidelines state that General Plan policies and standards must be sufficient to serve as a guideline for compliance with sound transmission control requirements, and directly correlate to the Land Use, Circulation, and Housing Elements. The Guidelines also state that the Noise Element must be used to guide decisions concerning land use and the location of new roads and transit facilities since these are common sources of excessive noise levels. (OPR, 2017a, pp. 131-132) The City’s General Plan (Policy Plan) addresses the topic of noise in its Safety Element. Refer below for a discussion of the City’s Policy Plan.

#### ***C. Local Plans, Policies, and Regulations***

##### 1. *Ontario International Airport, Airport Land Use Compatibility Plan*

The Project Site is located approximately 2.7 miles west of the nearest runway at the ONT and is located within the ONT Airport Influence Area (AIA). The most recent ONT ALUCP was adopted on April 19, 2011. The ALUCP establishes safety zones, airspace protection zones, noise impact zones, and recorded overflight notification zones for areas within the ONT AIA. Most of the Project Site is located outside the 65 dB CNEL airport noise impact zone (Ontario, 2011, Map 2-3, Table 2-3). The 65 dB CNEL area does not have any restrictions for industrial or warehouse uses.

##### 2. *City of Ontario Policy Plan*

The City’s Policy Plan Safety Element Section S4, Noise Hazards, establishes a goal of maintaining an environment where noise does not adversely affect the public’s health, safety, and welfare. To satisfy this goal, the Policy Plan identifies 6 policies related to: noise mitigation; coordination with transportation authorities; airport noise mitigation; truck traffic; roadway design; and airport noise compatibility. Noise criteria identified at Policy Plan Table LU-7 provide guidelines to evaluate land use compatibility within various noise environments (Urban Crossroads, 2022e, p. 13).

##### 3. *City of Ontario Municipal Code*

#### **Construction-Related Noise Standards**

Section 5-29.09 of the Ontario Municipal Code establishes the City’s acceptable noise criteria for construction activities. Specifically, it states “No person, while engaged in construction, remodeling, digging, grading, demolition or any other related building activity, shall operate any tool, equipment or machine in a manner that produces loud noise that disturbs a person of normal sensitivity who works or resides in the vicinity, or a Police or Code Enforcement Officer, on any weekday except between the hours of 7:00 a.m. and 6:00 p.m. or on Saturday or Sunday between the hours of 9:00 a.m. and 6:00 p.m” (Urban Crossroads, 2022e, p. 16).



**□ Operational Noise Standards**

Section 5-29.04(a) of the Ontario Municipal Code identifies the allowable daytime and nighttime ambient exterior noise standards for each land use type. For Manufacturing and Industrial land uses (Noise Zone V), such as this Project, ambient exterior noise levels may not exceed 70 dBA Leq. For residential land uses (Noise Zone I), ambient exterior noise levels may not exceed 65 dBA Leq during the daytime hours (7:00 a.m. to 10:00 p.m.) and may not exceed 45 dBA Leq during the nighttime hours (10:00 p.m. to 7:00 a.m.). The lower noise level standard shall apply on the boundary between two (2) different noise zones. If the ambient noise level exceeds the resulting standard, the ambient noise level shall be the standard (Urban Crossroads, 2022e, p. 15).

**4.9.4 METHODOLOGY FOR CALCULATING PROJECT-RELATED NOISE IMPACTS**

**A. Construction Noise Analysis Methodology**

For the construction noise analysis, this construction noise analysis was prepared using reference construction equipment noise levels from the FHWA published the Roadway Construction Noise Model (RCNM), which includes a national database of construction equipment reference noise emission levels. The RCNM equipment database, provides a comprehensive list of the noise generating characteristics for specific types of construction equipment. In addition, the database provides an acoustical usage factor to estimate the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation. Table 4.9-2, *Construction Reference Noise Levels*, provides a summary of the reference noise level measurements.

**Table 4.9-2 Construction Reference Noise Levels**

Construction Stage	Reference Construction Activity	Reference Noise Level @ 50 Feet (dBA Leq) <sup>1</sup>	Combined Noise Level (dBA Leq) <sup>2</sup>	Combined Sound Power Level (PWL) <sup>3</sup>
Demolition	Demolition Equipment	82	83	115
	Backhoes	74		
	Hauling Trucks	72		
Site Preparation	Crawler Tractors	78	80	112
	Hauling Trucks	72		
	Rubber Tired Dozers	75		
Grading	Graders	81	83	115
	Excavators	77		
	Compactors	76		
Building Construction	Cranes	73	81	113
	Tractors	80		
	Welders	70		
Paving	Pavers	74	83	115
	Paving Equipment	82		
	Rollers	73		



Construction Stage	Reference Construction Activity	Reference Noise Level @ 50 Feet (dBA L <sub>eq</sub> ) <sup>1</sup>	Combined Noise Level (dBA L <sub>eq</sub> ) <sup>2</sup>	Combined Sound Power Level (PWL) <sup>3</sup>
Architectural Coating	Cranes	73	77	109
	Air Compressors	74		
	Generator Sets	70		

<sup>1</sup> FHWA Roadway Construction Noise Model (RCNM).

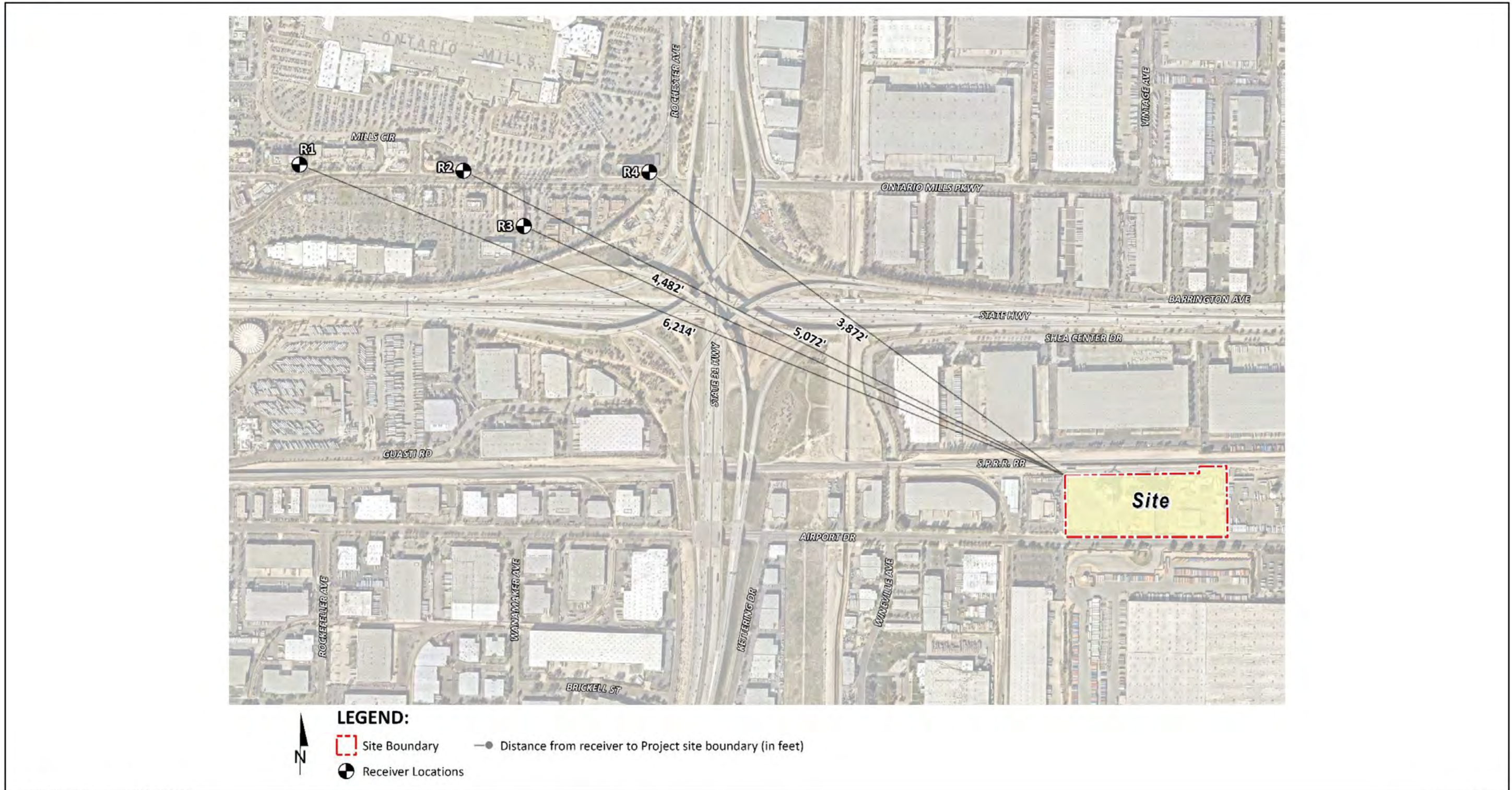
<sup>2</sup> Represents the combined noise level for all equipment assuming they operate at the same time consistent with FTA Transit Noise and Vibration Impact Assessment guidance.

<sup>3</sup> Sound power level represents the total amount of acoustical energy (noise level) produced by a sound source independent of distance or surroundings. Sound power levels calibrated using the CadnaA noise model at the reference distance to the noise source.

Source: (Urban Crossroads, 2022e, Table 8-1)

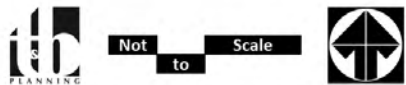
The construction noise analysis evaluates Project construction-related noise levels at the closest nearby receiver locations in the Project study area, which are located on the opposite side of I-15 and I-10 from the Project Site. Four representative receiver locations were considered in the construction noise analysis. The receiver locations used in the construction noise analysis are shown on Figure 4.9-2, *Noise Receiver Locations*. Other sensitive land uses in the Project study area that are located at greater distances than those identified in this noise study will experience lower noise levels than those presented in this report due to the additional attenuation from distance and the shielding of intervening structures. Distance is measured in a straight line from the project boundary to each receiver location.

- R1: Location R1 represents the existing noise sensitive Ayres Hotel Ontario Mills Mall at 4395 Ontario Mills Parkway, approximately 6,214 feet northwest of the Project Site. Since there are no private outdoor living areas (backyards) facing the Project Site, receiver R1 is placed at the building façade. A 24-hour noise measurement was taken near this location, L1, to describe the existing ambient noise environment.
- R2: Location R2 represents the existing noise sensitive Hampton Inn & Suites Ontario at 4500 Ontario Mills Parkway, approximately 5,072 feet northwest of the Project Site. Since there are no private outdoor living areas (backyards) facing the Project Site, receiver R2 is placed at the building façade. A 24-hour noise measurement was taken near this location, L2, to describe the existing ambient noise environment.
- R3: Location R3 represents the existing noise Country Inn & Suites by Radisson, Ontario at Ontario Mills at 4674 Ontario Mills Parkway, approximately 4,482 feet northwest of the Project Site. Since there are no private outdoor living areas (backyards) facing the Project Site, receiver R3 is placed at the building façade. A 24-hour noise measurement was taken near this location, L3, to describe the existing ambient noise environment.



Source(s): Urban Crossroads (08-01-2022)

Figure 4.9-2



Lead Agency: City of Ontario

Noise Receiver Locations

SCH No. 2022090006

Page 4.9-12



- R4: Location R4 represents the existing noise Hyatt Place Ontario/Rancho Cucamonga at 4760 Mills Circle, approximately 3,872 feet northwest of the Project Site. Since there are no private outdoor living areas (backyards) facing the Project Site, receiver R4 is placed at the building façade. A 24-hour noise measurement was taken near this location, L4, to describe the existing ambient noise environment.

***B. Stationary Noise Analysis Methodology***

For the operational stationary noise analysis, the noise impact analysis relies on reference noise level measurements collected from similar types of activities to represent the noise levels expected with the development of the Project. Consistent with similar warehouse and industrial uses, the Project business operations would primarily be conducted within the enclosed buildings, except for traffic movement, parking, as well as loading and unloading of trucks at designated loading bays. The on-site Project-related noise sources are expected to include: loading dock activity, roof-top air conditioning units, trash enclosure activity, parking lot vehicle movements, and truck movements.

To estimate the Project operational noise impacts, reference noise level measurements for these anticipated uses were collected by Urban Crossroads, Inc. from similar types of activities to represent the noise levels expected with the development of the proposed Project. The projected noise levels assume the worst-case noise environment with the loading dock activity, roof-top air conditioning units, trash enclosure activity, parking lot vehicle movements, and truck movements all operating at the same time. These sources of noise activity will likely vary throughout the day.

Table 4.9-3, *Operational Reference Noise Levels*, provides a summary of the reference noise level measurements for the types of equipment and site operations that are expected on the Project Site. All operational noise level measurements presented in Table 4.9-3 were normalized to describe a common reference distance of 50 feet. The stationary noise analysis evaluates Project-related noise levels at the nearby receiver locations in the Project study area. The receiver locations used in the stationary noise analysis are the same that are used in the construction analysis (refer to Figure 4.9-2, *Noise Receiver Locations*).



**Table 4.9-3 Operational Reference Noise Levels**

Noise Source <sup>1</sup>	Noise Source Height (Feet)	Min./ Hour <sup>2</sup>		Reference Noise Level (dBA L <sub>eq</sub> ) @ 50 Feet	Sound Power Level (dBA) <sup>3</sup>
		Day	Night		
Loading Dock Activity	8'	60	60	65.7	111.5
Roof-Top Air Conditioning Units	5'	39	28	57.2	88.9
Trash Enclosure Activity	5'	10	10	57.3	89.0
Parking Lot Vehicle Movements	5'	60	60	56.1	87.8
Truck Movements	8'	60	60	59.8	93.2

<sup>1</sup> As measured by Urban Crossroads, Inc.

<sup>2</sup> Anticipated duration (minutes within the hour) of noise activity during typical hourly conditions expected at the Project Site. "Daytime" = 7:00 a.m. - 10:00 p.m.; "Nighttime" = 10:00 p.m. - 7:00 a.m.

<sup>3</sup> Sound power level represents the total amount of acoustical energy (noise level) produced by a sound source independent of distance or surroundings. Sound power levels calculated using the CadnaA noise model at the reference distance to the noise source.

Source: (Urban Crossroads, 2022e, Table 7-1)

**C. Vibration Analysis Methodology**

Vibration levels were predicted using reference vibration levels and logarithmic equations contained in the Federal Transit Administration’s (FTA) 2018 publication: “Transit Noise and Vibration Impact Assessment.” The vibration source levels for Project construction equipment are summarized in Table 4.9-4, *Vibration Source Levels for Construction Equipment*.

**Table 4.9-4 Vibration Source Levels for Construction Equipment**

Equipment	PPV (in/sec) at 25 feet
Small bulldozer	0.003
Jackhammer	0.035
Loaded Trucks	0.076
Large bulldozer	0.089

Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual

Source: : (Urban Crossroads, 2022e, Table 8-5)

**4.9.5 BASIS FOR DETERMINING SIGNIFICANCE**

According to Section XII of the CEQA Guidelines, the proposed Project would result in a significant impact to noise if the Project or any Project-related component would (OPR, 2019):

- a. *Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;*



- b. *Generation of excessive ground borne vibration or ground borne noise levels;*
- c. *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

Noise level increases resulting from the Project are evaluated based on the Appendix G CEQA Guidelines. Under CEQA, consideration must be given to the magnitude of the increase, the existing baseline ambient noise levels, and the location of receivers to determine if a noise increase represents a significant adverse environmental impact. This approach recognizes that there is no single noise increase that renders the noise impact significant.

In relation to Threshold “a,” Project-related construction and operational activities would be subject to the applicable noise standards established by the City’s Municipal Code and Policy Plan. However, neither the Policy Plan nor the Municipal Code defines the levels at which a development project’s temporary or permanent noise increases are considered substantial. Under Threshold “a,” CEQA requires that consideration be given to the to the magnitude of the increase, the existing ambient noise levels, and the location of sensitive receptors in order to determine if a noise increase represents a substantial increase and thus a significant adverse environmental impact. For purposes of this EIR, the metric used to evaluate the significance of the Project’s increase in ambient noise levels is adapted from the Federal Interagency Committee on Noise (FICON) and FTA. A detailed discussion of the noise exposure criteria is provided in Subsection 4.1 of the Project’s noise impact analysis (refer to *Technical Appendix I*). Accordingly, in consideration of the City’s Policy Plan and Municipal Code and the FICON and FTA noise exposure criteria, the Project would result in a significant noise impact during operation if any of the following conditions occur:

*Project construction activities would result in a significant impact if construction noise conflicts with the City of Ontario Municipal Code (Section 5-29.09(a)) as follows:*

- Project-related construction activities take place outside the permitted hours of 7:00 a.m. and 6:00 p.m. on any weekday or between the hours of 9:00 a.m. and 6:00 p.m on Saturday or Sunday.

Also, based on the FTA’s Transit Noise and Vibration Impact Assessment Manual:

- Project construction noise levels would exceed the exterior 80 dBA  $L_{eq}$  daytime or nighttime noise level standards at adjacent land uses

*Project operational activities would result in a significant impact if operational noise exceeds the levels allowed by the City of Ontario Municipal Code (Section 5-29.04(a)) as follows:*





- If Project-related operational (stationary-source) noise levels exceed an exterior noise level of 65 dBA  $L_{eq}$ , during the daytime hours of 7:00 a.m. to 10:00 p.m., and 45 dBA  $L_{eq}$  during the nighttime hour of 10:00 p.m. to 7:00 a.m.

Also, based on FICON's noise exposure criteria:

- When the existing ambient noise levels:
  - are less than 60 dBA CNEL and the Project creates a 5 dBA CNEL or greater Project-related noise level increase; or
  - range from 60 to 65 dBA CNEL and the Project creates a 3 dBA CNEL or greater Project-related noise level increase; or
  - are greater than 65 dBA CNEL and the Project creates a 1.5 dBA CNEL or greater Project-related noise level increase; or

In relation to Threshold “b,” vibration-generating activities are appropriately evaluated using the Caltrans vibration damage thresholds to assess potential temporary construction-related impacts at adjacent building locations. Accordingly, for evaluation under Threshold “b,” vibration levels are considered significant if Project-related activities would:

- Create or cause to be created any vibration activity that would exceed 0.3 in/sec PPV at an adjacent land use.

Table 2-3 of the ONT ALUCP establishes noise level compatibility contour boundaries for activities on properties, like the Project Site, that are located within the ONT Noise Impact Zone. For evaluation under Threshold “c,” exposure to excessive noise levels from airport operations are considered significant if:

- The Project Site is located in the 65-70 CNEL dB noise contour (or above) and indoor noise levels cannot be attenuated to a level of 50 dB CNEL.

#### 4.9.6 IMPACT ANALYSIS

***Threshold a: Would the Project generate substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***

The analysis presented on the following pages summarizes the Project's potential construction noise levels and operational noise levels, including operational noise that would be generated on-site as well as off-site noise that would be generated by Project-related traffic. The detailed noise calculations for the analysis presented here are provided in Appendices 7.1 and 8.1 of the Project's noise impact analysis (see *Technical Appendix I*).



**A. Construction Noise Impact Analysis**

Construction activities on the Project Site would proceed in 6 stages: 1) demolition; 2) site preparation; 3) grading; 4) building construction; 5) paving, and 6) application of architectural coatings. These activities would create temporary periods of noise when heavy construction equipment (i.e. trucks, concrete mixer, portable generators, power tools) is in operation and would cause a short-term increase in ambient noise levels. The Project construction noise levels at nearby receiver locations are summarized in Table 4.9-5, *Construction Equipment Noise Level Summary*.

**Table 4.9-5 Construction Equipment Noise Level Summary**

Receiver Location <sup>1</sup>	Construction Noise Levels (dBA L <sub>eq</sub> )						
	Demolition	Site Preparation	Grading	Building Construction	Paving	Architectural Coating	Highest Levels <sup>2</sup>
R1	33.6	30.6	33.6	31.6	33.6	27.6	33.6
R2	35.9	32.9	35.9	33.9	35.9	29.9	35.9
R3	37.1	34.1	37.1	35.1	37.1	31.1	37.1
R4	38.6	35.6	38.6	36.6	38.6	32.6	38.6

<sup>1</sup> Noise receiver locations are shown on Figure 4.9-2.

<sup>2</sup> Construction noise level calculations based on distance from the construction activity, which is measured from the Project Site boundary to the nearest receiver locations. CadnaA construction noise model inputs are included in Appendix 8.1.

Source: (Urban Crossroads, 2022e, Table 8-2)

To evaluate whether the Project will generate potentially significant short-term noise levels at nearest receiver locations, a construction-related daytime noise level threshold of 80 dBA L<sub>eq</sub> is used as a reasonable threshold to assess the daytime construction noise level impacts. The construction noise analysis shows that the nearest receiver locations will satisfy the reasonable daytime 80 dBA L<sub>eq</sub> significance threshold during Project construction activities as shown in Table 4.9-5. Additionally, Project-related construction activities are expected to occur on weekdays (and, potentially, on Saturdays) during the hours when the City’s Municipal Code does not restrict construction noise (i.e., between the hours 7:00 a.m. and 6:00 p.m. on any weekday or between the hours of 9:00 a.m. and 6:00 p.m on Saturday or Sunday). Accordingly, construction noise impacts would be less than significant.

If the Project’s construction requires concrete pouring during nighttime hours, the resulting noise levels are summarized in Table 4.9-6, *Nighttime Concrete Pouring Noise Level Summary*. At all receiver locations, the Project’s nighttime concrete pouring noise levels would not exceed the standards established by the City and impacts would be less than significant.



**Table 4.9-6 Nighttime Concrete Pouring Noise Level Summary**

Receiver Location <sup>1</sup>	Use	Construction Noise Levels (dBA Leq)		
		Paving Construction <sup>2</sup>	Nighttime Threshold <sup>3</sup>	Threshold Exceeded? <sup>4</sup>
R1	Residence	18.6	45	No
R2	Residence	21.2	45	No
R3	Residence	22.5	45	No
R4	Residence	24.1	45	No

<sup>1</sup> Noise receiver locations are shown on Figure 4.9-2.

<sup>2</sup> Paving construction noise level calculations based on distance from the construction noise source activity to nearby receiver locations.

<sup>3</sup> Exterior nighttime noise level standards as shown on Table 5-1 of the Project's noise impact analysis (refer to *Technical Appendix I*).

<sup>4</sup> Do the estimated Project construction noise levels exceed the nighttime construction noise level threshold?

Source: (Urban Crossroads, 2022e, Table 8-4)

**B. Operational Noise Impact Analysis – Stationary Noise**

Stationary (on-site) noise sources associated with long-term Project operation are expected to include idling trucks, delivery truck and automobile parking, delivery truck backup alarms, roof-top air conditioning units, loading and unloading of dry goods, and parking lot vehicle movements. The Project also is expected to generate noise during the loading and unloading of delivery trailers on-site. The daytime and nighttime Project stationary noise levels at nearby sensitive receptor locations are summarized Table 4.9-7, *Daytime Project Operational Noise Levels*, and Table 4.9-8, *Nighttime Project Operational Noise Levels*. Table 4.9-7, *Daytime Project Operational Noise Levels*, shows the Project operational noise levels during the daytime hours of 7:00 a.m. to 10:00 p.m. The daytime hourly noise levels at the off-site receiver locations are expected to range from 22.2 to 27.4 dBA Leq.

**Table 4.9-7 Daytime Project Operational Noise Levels**

Noise Source <sup>1</sup>	Operational Noise Levels by Receiver Location (dBA Leq)			
	R1	R2	R3	R4
Loading Dock Activity	21.0	25.2	26.4	25.8
Roof-Top Air Conditioning Units	7.6	10.8	12.1	13.5
Trash Enclosure Activity	0.0	2.6	4.0	0.0
Parking Lot Vehicle Movements	11.5	15.6	16.9	18.5
Truck Movements	12.6	15.4	16.8	16.8
<b>Total (All Noise Sources)</b>	<b>22.2</b>	<b>26.2</b>	<b>27.4</b>	<b>27.2</b>

<sup>1</sup> See Exhibit 7-A from the Project's noise impact analysis (*Technical Appendix I*) for the noise source locations. CadnaA noise model calculations are included in Appendix 7.1.

Source: (Urban Crossroads, 2022e, Table 7-2)



Table 4.9-8, *Nighttime Project Operational Noise Levels*, shows the Project operational noise levels during the nighttime hours of 10:00 p.m. to 7:00 a.m. The nighttime hourly noise levels at the off-site receiver locations are expected to range from 22.1 to 27.4 dBA  $L_{eq}$ .

**Table 4.9-8 Nighttime Project Operational Noise Levels**

Noise Source <sup>1</sup>	Operational Noise Levels by Receiver Location (dBA $L_{eq}$ )			
	R1	R2	R3	R4
Loading Dock Activity	21.0	25.2	26.4	25.8
Roof-Top Air Conditioning Units	5.2	8.4	9.7	11.0
Trash Enclosure Activity	0.0	1.7	3.0	0.0
Parking Lot Vehicle Movements	11.5	15.6	16.9	18.5
Truck Movements	12.6	15.4	16.8	16.8
<b>Total (All Noise Sources)</b>	<b>22.1</b>	<b>26.1</b>	<b>27.4</b>	<b>27.1</b>

<sup>1</sup> See Exhibit 7-A from the Project's noise impact analysis (*Technical Appendix I*) for the noise source locations. CadnaA noise model calculations are included in Appendix 7.1.  
Source: (Urban Crossroads, 2022e, Table 7-3)

The daytime and nighttime Project stationary noise levels at nearby receiver locations are summarized in Table 4.9-9, *Project Operational Noise Summary – Stationary Noise*. As shown, Project stationary noise would not expose nearby receivers to unacceptable daytime or nighttime noise levels during Project operations following Project buildout. Accordingly, Project operation would not result in the exposure of receivers near the Project Site to stationary noise levels that exceed the exterior noise level standards established in the City. Impacts would be less than significant.

**Table 4.9-9 Project Operational Noise Summary – Stationary Noise**

Receiver Location <sup>1</sup>	Project Operational Noise Levels (dBA $L_{eq}$ ) <sup>2</sup>		Noise Level Standards (dBA $L_{eq}$ ) <sup>3</sup>		Noise Level Standards Exceeded? <sup>4</sup>	
	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime
R1	22.2	22.1	65.0	45.0	No	No
R2	26.2	26.1	65.0	45.0	No	No
R3	27.4	27.4	65.0	45.0	No	No
R4	27.2	27.1	65.0	45.0	No	No

<sup>1</sup> See Figure 4.9-2 for the receiver locations.

<sup>2</sup> Proposed Project operational noise levels as shown on Table 4.9-7 and Table 4.9-8.

<sup>3</sup> Exterior noise level standards, for residential land use, as shown on Table 4-1 from the Project's noise impact analysis (*Technical Appendix I*).

<sup>4</sup> Do the estimated Project operational noise source activities exceed the noise level standards?

"Daytime" = 7:00 a.m. - 10:00 p.m.; "Nighttime" = 10:00 p.m. - 7:00 a.m.

Source: (Urban Crossroads, 2022e, Table 7-4)

Noise levels that would be experienced at receiver locations when unmitigated Project-source noise is added to the ambient daytime, evening, and nighttime conditions are presented on Table 4.9-10, *Project Operational Noise Level Contributions – Daytime* and Table 4.9-11, *Project Operational Noise Level*



*Contributions – Nighttime.* As shown, the Project-related operational noise level increases will satisfy the operational noise level increase criteria at the nearest sensitive receiver locations. On this basis, although the Project would increase noise level in the Project vicinity, Project operational stationary-source noise would not result in a substantial temporary/periodic, or permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project. Noise impacts associated with long-term on-site operations would be less than significant.

**Table 4.9-10 Project Operational Noise Level Contributions – Daytime**

Receiver Location <sup>1</sup>	Total Project Operational Noise Level <sup>2</sup>	Measurement Location <sup>3</sup>	Reference Ambient Noise Levels <sup>4</sup>	Combined Project and Ambient <sup>5</sup>	Project Increase <sup>6</sup>	Increase Criteria <sup>7</sup>	Increase Criteria Exceeded?
R1	22.2	L1	58.4	58.4	0.0	5.0	No
R2	26.2	L2	61.7	61.7	0.0	5.0	No
R3	27.4	L3	67.1	67.1	0.0	1.5	No
R4	27.2	L4	69.8	69.8	0.0	1.5	No

<sup>1</sup> See Figure 4.9-2 for the receiver locations.

<sup>2</sup> Total Project daytime operational noise levels as shown on Table 4.9-7.

<sup>3</sup> Reference noise level measurement locations as shown on Exhibit 5-A from the Project's noise impact analysis (*Technical Appendix D*).

<sup>4</sup> Observed daytime ambient noise levels as shown on Table 5-1 from the Project's noise impact analysis.

<sup>5</sup> Represents the combined ambient conditions plus the Project activities.

<sup>6</sup> The noise level increase expected with the addition of the proposed Project activities.

<sup>7</sup> Significance increase criteria as shown on Table 4-1 from the Project's noise impact analysis.

Source: (Urban Crossroads, 2022e, Table 7-5)

**Table 4.9-11 Project Operational Noise Level Contributions – Nighttime**

Receiver Location <sup>1</sup>	Total Project Operational Noise Level <sup>2</sup>	Measurement Location <sup>3</sup>	Reference Ambient Noise Levels <sup>4</sup>	Combined Project and Ambient <sup>5</sup>	Project Increase <sup>6</sup>	Increase Criteria <sup>7</sup>	Increase Criteria Exceeded?
R1	22.1	L1	59.0	59.0	0.0	5.0	No
R2	26.1	L2	61.3	61.3	0.0	5.0	No
R3	27.4	L3	62.2	62.2	0.0	5.0	No
R4	27.1	L4	68.2	68.2	0.0	1.5	No

<sup>1</sup> See Figure 4.9-2 for the receiver locations.

<sup>2</sup> Total Project nighttime operational noise levels as shown on Table 4.9-8.

<sup>3</sup> Reference noise level measurement locations as shown on Exhibit 5-A from the Project's noise impact analysis (*Technical Appendix D*).

<sup>4</sup> Observed nighttime ambient noise levels as shown on Table 5-1 from the Project's noise impact analysis.

<sup>5</sup> Represents the combined ambient conditions plus the Project activities.

<sup>6</sup> The noise level increase expected with the addition of the proposed Project activities.

<sup>7</sup> Significance increase criteria as shown on Table 4-1 from the Project's noise impact analysis.

Source: (Urban Crossroads, 2022e, Table 7-6)



**C. Off-Site Transportation Noise Impact Analysis**

Traffic generated by the operation of the proposed Project will influence the traffic noise levels in surrounding off-site areas and at the Project Site. The off-site Project-related traffic represents an incremental increase to the existing roadway volumes, which is not expected to generate a barely perceptible noise level increase of 3 dBA CNEL at nearby sensitive land uses adjacent to study area roadways, since a doubling of the existing traffic volumes would be required to generate a 3 dBA CNEL increase. Due to the low traffic volumes generated by the Project, the off-site traffic noise levels generated by the Project are considered less than significant and no further analysis is required. (Urban Crossroads, 2022e, p. 36)

**Threshold b: Would the Project generate excessive groundborne vibration or groundborne noise levels?**

**A. Construction Analysis**

Construction activities on the Project Site would utilize equipment that has the potential to generate vibration. Vibration levels at sensitive receptors near the Project Site during Project construction are summarized on Table 4.9-12, *Construction Equipment Vibration Levels*. As shown, none of the receiver locations in the vicinity of the Project Site would be exposed to vibration levels that exceed the applicable significance threshold. Accordingly, Project construction would not generate excessive or substantial temporary groundborne vibration or noise levels and a less-than-significant impact would occur.

**Table 4.9-12 Construction Equipment Vibration Levels**

Receiver <sup>1</sup>	Distance to Const. Activity (Feet) <sup>2</sup>	Typical Construction Vibration Levels PPV (in/sec) <sup>3</sup>					Thresholds PPV (in/sec) <sup>4</sup>	Thresholds Exceeded? <sup>5</sup>
		Small bulldozer	Jackhammer	Loaded Trucks	Large bulldozer	Highest Vibration Level		
R1	6,214'	0.000	0.000	0.000	0.000	0.000	0.3	No
R2	5,072'	0.000	0.000	0.000	0.000	0.000	0.3	No
R3	4,482'	0.000	0.000	0.000	0.000	0.000	0.3	No
R4	3,872'	0.000	0.000	0.000	0.000	0.000	0.3	No

<sup>1</sup> Receiver locations are shown on Figure 4.9-2.

<sup>2</sup> Distance from receiver location to Project construction boundary (Project Site boundary).

<sup>3</sup> Based on the Vibration Source Levels of Construction Equipment (Table 4.9-4).

<sup>4</sup> Caltrans Transportation and Construction Vibration Guidance Manual, April 2020, Table 19, p. 38.

<sup>5</sup> Does the peak vibration exceed the acceptable vibration thresholds?

"PPV" = Peak Particle Velocity

Source: (Urban Crossroads, 2022e, Table 8-6)

**B. Operational Analysis**

Under long-term conditions, the Project would not include or require equipment or activities that would result in perceptible groundborne vibration beyond the Project Site. Trucks would travel to and from the Project Site along local roadways; however, vibration levels for heavy trucks operating at the posted



speed limits on paved surfaces are not perceptible beyond the roadway. The Project would not result in the exposure of persons to excessive groundborne vibration or noise levels during long-term operation.

***Threshold c:*** *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the project area to excessive noise levels?*

The Project Site is located approximately 2.7 miles east of ONT. The Project Site is located within the ONT Airport Influence Area but is located outside the 65 dBA CNEL airport noise impact zone. According to Table 2-3 of the ONT ALUCP, industrial land uses located outside the 65 dBA CNEL noise level contours of ONT, such as the Project, are considered *normally compatible land use*. For *normally compatible land use*, either the activities associated with the land use are inherently noisy or standard construction methods will sufficiently attenuate exterior noise to an acceptable indoor CNEL. Accordingly, the Project would be a compatible use within the ONT Noise Impact Zone and operation of the Project would not expose people working on the Project Site to excessive noise levels. The Project's impact would be less than significant.

#### 4.9.7 CUMULATIVE IMPACT ANALYSIS

##### A. Construction Noise

Construction activities associated with the proposed Project, especially activities involving heavy equipment, would create intermittent periods of noise when construction equipment is in operation and cause a short-term increase in ambient noise levels. As shown in Table 4.9-5, the peak noise level anticipated during construction activities are estimated to reach a maximum noise level of 38.6 dBA  $L_{eq}$  at receiver R4 (represents the existing noise Hyatt Place Ontario/Rancho Cucamonga at 4760 Mills Circle, approximately 3,872 feet northwest of the Project Site) which does not exceed the construction noise threshold of 80 dBA  $L_{eq}$ . Therefore, Project construction-related activities would result in less than significant noise impacts.

Because the Project's construction noise levels would be less than significant, construction noise would be temporary in nature, and the Project and other cumulative projects would not combine with Project-related construction; cumulative construction impacts would be less than significant.

##### B. Stationary Noise

The analysis presented for Threshold "a" addresses the Project's contribution of noise to existing cumulative noise sources (i.e., ambient noise) in the Project area. As previously shown in this Subsection, the Project's noise contribution would not be perceptible to noise-sensitive receptors in the Project area during daytime or nighttime hours. The Project's permanent stationary noise impacts would not be cumulatively-considerable.



***C. Traffic Noise***

The analysis presented under Threshold “a” evaluates the Project’s traffic noise contribution along study area roadways. As summarized in that analysis, due to the low traffic volumes generated by the Project, the off-site traffic noise levels generated by the Project are considered less than significant, therefore, would not be cumulatively-considerable under near- or long-term conditions.

***D. Groundborne Vibration and Noise***

During construction, the Project’s peak vibration impacts would occur during the grading phase when large pieces of equipment, like bulldozers, are operating on-site. (During the non-grading phases of Project construction, when smaller pieces of equipment are used on-site, the Project’s vibration would be minimal.) Vibration effects diminish rapidly from the source; therefore, the only reasonable sources of cumulative vibration in the vicinity of the Project Site could occur on properties abutting these sites. As described above, there are no known active or pending construction projects abutting the Project Site that would overlap with the Project’s proposed construction schedule. Accordingly, there is no potential for the Project to contribute to the exposure of persons to substantial temporary groundborne vibration or noise.

Under long-term conditions, the Project would not include or require equipment or activities that would result in perceptible groundborne vibration beyond the Project Site. Trucks would travel to and from the Project Site along local roadways; however, vibration levels for heavy trucks operating at the posted speed limits on paved surfaces are not perceptible beyond the roadway. The Project would not cumulatively-contribute to the exposure of persons to excessive groundborne vibration or noise levels during long-term operation.

***E. Airport Noise***

The Project would not involve the construction, operation, or use of any public airports or public use airports. There are no conditions associated with implementation of the Project that would contribute airport noise or exposure of additional people to unacceptable levels of airport noise. Accordingly, the Project would have no potential to cumulatively-contribute to impacts associated with noise from a public airport, public use airport, or private airstrip. Additionally, the Project Site and the immediately surrounding area are not subject to substantial airport- or air traffic-related noise. Accordingly, there is no potential for cumulative development to expose persons residing or working in the Project area to excessive airport-related noise levels.

**4.9.8 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION**

Threshold a: Less-than-Significant Impact. The Project would generate short-term construction and long-term operational noise but would not generate noise levels that exceed the threshold standards.

Threshold b: Less-than-Significant Impact. The Project’s construction and operational activities would not result in a perceptible groundborne vibration or noise.





Threshold c: Less-than-Significant Impact. The proposed Project would be compatible with noise levels from the ONT and operation of the Project would not expose future employees on the Project Site to excessive noise levels.

#### 4.9.9 MITIGATION

Project impacts would be less than significant and mitigation is not required.



## 4.10 TRANSPORTATION

This Subsection assesses transportation impacts resulting from implementation of the Project. In accordance with Senate Bill (SB) 743, further discussed under Subsection 4.10.2 below, the California Natural Resources Agency (CNRA) adopted changes to the CEQA Guidelines in December 2018, which identify that starting on July 1, 2020, vehicle miles traveled (VMT) is the appropriate metric to evaluate a project's transportation impacts. As of December 2018, when the revised CEQA Guidelines were adopted, automobile delay, as measured by "level of service" (LOS) and other similar metrics, no longer constitutes a significant environmental effect under CEQA. Lead agencies in California are required to use VMT to evaluate project-related transportation impacts.

The analysis in this Subsection is based primarily on information contained in the technical report prepared by Urban Crossroads titled "5355 East Airport Drive Vehicle Miles Traveled Analysis" and dated January 3, 2023, and is provided as *Technical Appendix J* to this EIR (Urban Crossroads, 2023a). In addition, a trip generation assessment prepared by Urban Crossroads, dated January 3, 2023, was used in this analysis and is included as *Technical Appendix K* to this EIR (Urban Crossroads, 2023b).

### 4.10.1 EXISTING TRANSPORTATION SETTING

#### A. Existing Roadway System

The Project Site is located north of East Airport Drive, which is classified as a Minor Arterial under the Policy Plan (Ontario, 2022a). According to the City's Functional Roadway Classification Plan, minor arterials accommodate less traffic and are for trips of moderate length. Minor Arterials allow a greater level of access to abutting properties so speeds are lower than Other Principal Arterials. Minor Arterials connect our community but ideally should not penetrate residential neighborhoods. The roadway configuration and right-of-way width vary depending on local conditions, but typically accommodate 4 to 6 lanes of traffic and medians. Existing traffic on East Airport Drive consists of both passenger vehicles and trucks passing through the area and accessing nearby land uses.

The primary regional vehicular travel routes serving the Project area are I-10 and I-15, which are located approximately 0.2-mile north and 0.4-mile west of the Project Site, respectively. The Project Site is located approximately 0.4-mile (driving distance) west of the N. Etiwanda Avenue on/off-ramp to I-10 and 3-mile (driving distance) northeast of the Jurupa Avenue on/off-ramp to I-10.

#### B. Existing Vehicle Miles Traveled

Based on The Ontario Plan, average VMT in the City per service population is 27.61 miles (Urban Crossroads, 2023a).

#### C. Existing Trip Generation

The Project Site is currently occupied and operating as a grain processing company and corn storage and distribution facility with warehousing space totaling 41,780 square feet. In an effort to understand the existing traffic associated with the current use, traffic counts were collected at the Project Site's



driveways on Tuesday, March 1, 2022 through Thursday, March 3, 2022. Table 4.10-1, *Existing Trip Generation Summary*, summarizes the trip generation by day and the average existing trip generation based on the count data collected over two days. The existing uses on the site generate an average of 316 two-way trips per day, with 30 trips during the AM peak hour and 2 trips during the PM peak hour (in actual vehicles) (Urban Crossroads, 2023b).

**Table 4.10-1 Existing Trip Generation Summary**

Land Use	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	
Average Existing Trip Generation							
Passenger Cars:	11	7	18	0	1	1	209
2-axle Trucks:	2	2	4	0	0	0	17
3-axle Trucks:	0	0	0	0	0	0	6
4+axle Trucks:	3	4	8	1	0	1	84
Total Truck Trips:	6	6	12	1	0	1	107
<b>Total Trips<sup>1</sup></b>	<b>17</b>	<b>13</b>	<b>30</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>316</b>

<sup>1</sup> Total Trips = Passenger Cars + Truck Trips.

Source: (Urban Crossroads, 2023b, Table 1)

***D. Existing Truck Routes***

The City designates two roadways as “truck routes” in the Project Site vicinity: East Airport Drive (which abuts the Project Site on the south) and Etiwanda Avenue (which is located approximately 0.4-mile east of the Project Site) (Ontario, 2022a).

***E. Existing Transit Routes***

Public transit service in the region is provided by Omnitrans, a public transit agency that serves various jurisdictions within San Bernardino County. There are no public transit routes that run adjacent to the Project Site under existing conditions. The nearest transit routes to the Project Site are Route 61 which has a stop located along Fourth Street, approximately 0.9 mile north of the Project Site and Route 82 which has a stop located at South Etiwanda and Jurupa Avenue, approximately 1.2 miles southeast of the Project Site.

***F. Existing Bicycle and Pedestrian Facilities***

There are no existing bicycle facilities within the vicinity of the Project Site. The closest bike route to the Project Site is a Class III bike route located along Ontario Mills Parkway, approximately 0.4 miles north of the Project Site on the opposite side of the freeway. There are no sidewalks on either side of East Airport Drive, with the exception of a small portion along the adjacent development frontage directly to the west at 5351 East Airport Drive.



#### 4.10.2 REGULATORY SETTING

##### ***A. State Plan, Policies, and Regulations***

###### ***1. Senate Bill 743***

SB 743, which was codified in Public Resources Code Section 21099, required changes to the CEQA Guidelines regarding the analysis of transportation impacts. Pursuant to Public Resources Code Section 21099, the criteria for determining the significance of transportation impacts must “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.” To that end, in developing the criteria, the California Office of Planning and Research (OPR) proposed, and the CNRA certified and adopted changes to the CEQA Guidelines in December 2018, which entailed changes to the thresholds of significance for the evaluation of impacts to transportation. The updated CEQA Guidelines include the addition of CEQA Guidelines Section 15064.3, of which Subdivision b establishes criteria for evaluating a project’s transportation impacts based on project type and using automobile VMT as the metric.

##### ***B. Regional Plan, Policies, and Regulations***

###### ***1. SCAG Regional Transportation Plan/Sustainable Communities Strategy***

On September 3, 2020, SCAG’s Regional Council approved and adopted the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (“Connect SoCal”). Connect SoCal is the applicable Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) for the Project. The goals of Connect SoCal are to: 1) Encourage regional economic prosperity and global competitiveness; 2) Improve mobility, accessibility, reliability, and travel safety for people and goods; 3) Enhance the preservation, security, and resilience of the regional transportation system; 4) Increase person and goods movement and travel choices within the transportation system; 5) Reduce greenhouse gas emissions and improve air quality; 6) Support healthy and equitable communities; 7) Adapt to a changing climate and support an integrated regional development pattern and transportation network; 8) Leverage new transportation technologies and data-driven solutions that result in more efficient travel; 9) Encourage development of diverse housing types in areas that are supported by multiple transportation options; and 10) Promote conservation of natural and agricultural lands and restoration of habitats. Performance measures and funding strategies also are included to ensure that the adopted goals are achieved through implementation of the RTP.

###### ***2. San Bernardino County Congestion Management Program***

The San Bernardino County Congestion Management Program (CMP) was prepared by the San Bernardino Associated Governments (since re-named as the San Bernardino County Transportation Authority, SBCTA). The intent of the CMP is to create a link between land use, transportation, and air quality planning decisions and to prompt reasonable growth management programs that would more effectively utilize new and existing transportation funds to alleviate traffic congestion and related impacts and improve air quality. The San Bernardino CMP was first adopted in November 1992 and has since been updated 12 times, with the most recent comprehensive update in June 2016. None of



the roadways in the immediate vicinity of the Project Site are part of the San Bernardino CMP roadway network.

***C. Local Plan, Policies, and Regulations***

***1. Policy Plan Mobility Element***

The Policy Plan, part of The Ontario Plan 2050, serves as the City’s General Plan. The Policy Plan Mobility Element provides overall guidance for the City’s responsibility to satisfy the local and subregional mobility needs of our residents, visitors and businesses while maintaining the quality of life. The Mobility Element addresses access and connectivity among the various neighborhoods, villages and districts and a range of mobility options, including vehicular, trucking, freight and passenger rail, air, pedestrian, bicycle, and transit. The Mobility Element goals and policies applicable to the Project are addressed later in this Subsection (see analysis under Threshold “a”).

***2. San Bernardino County Measure “I”***

Measure “I,” a one-half of one percent sales tax on retail transactions, was approved by San Bernardino County voters in 1989 and extended by County voters in 2004 to remain effective through the year 2040. While Measure “I” is a self-executing sales tax, it bears discussion here because the funds raised through Measure “I” have funded in the past and will continue to fund new transportation facilities in San Bernardino County, including within the City. The revenue generated by Measure “I” is to be used to fund transportation projects including, but not limited to, roadway improvements, commuter rail, public transit, and other identified improvements. Revenues collected through local traffic impact fee programs are used in tandem with regional Measure “I” revenues to fund projects identified in the SANBAG Development Mitigation Nexus Study, which is included as Appendix G to the San Bernardino County CMP.

***3. City of Ontario Development Impact Fee (DIF) Program***

The City of Ontario created its Development Impact Fee (DIF) program to impose and collect fees from new residential, commercial, and industrial development for the purpose of funding local improvements necessary to accommodate the growth of new residents and businesses. The DIF program include fees for the General City and Ontario Ranch areas of the City. Fees are collected by the City’s Building Department at the time of building permit issuance.

**4.10.3 BASIS FOR DETERMINING SIGNIFICANCE**

According to Section XVI of Appendix G to the CEQA Guidelines, the proposed Project would result in a significant transportation impact if the Project or any Project-related component would (OPR, 2019):

- a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities;*



- b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b);
- c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- d. Result in inadequate emergency access?

**4.10.4 IMPACT ANALYSIS**

***Threshold a:*** *Would the Project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*

This response provides an analysis of a project’s potential to conflict with plans, programs, ordinances, or policies that address the circulation system, including transit, roadway, bicycle, and pedestrian facilities. A project that generally conforms with, and does not obstruct, applicable development plans, programs, ordinances, and policies is considered to be consistent. The transportation plans, policies, programs, ordinances, and standards that are relevant to the Project are identified in the analysis below. For context, the Project is expected to generate approximately 160 more vehicle trips than are being generated by the uses at the Project Site under existing conditions. (Urban Crossroads, 2023a) In order to develop the traffic characteristics of the proposed Project, trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021) for the proposed Project’s land uses was utilized. For purposes of the trip generation assessment, the following ITE land use codes were used:

- ITE land use code 150 (Warehousing)
- ITE land use code 157 (High-Cube Cold Storage Warehouse)

As shown in Table 4.10-2, *Project Trip Generation*, the proposed Project is anticipated to generate 476 vehicle trip-ends per day with 42 AM peak hour trips and 46 PM peak hour trips.

**Table 4.10-2 Project Trip Generation**

Land Use	Quantity Units <sup>1</sup>	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	
Actual Vehicles								
Warehousing	243.339 TSF							
Passenger Cars:		29	7	36	8	28	36	270
2-axle Trucks:		0	0	0	1	0	1	24
3-axle Trucks:		0	1	1	1	1	2	30
4+axle Trucks:		2	1	3	2	2	4	92
Total Truck Trips (Actual Vehicles):		2	2	4	4	3	7	146
Warehousing Trips (Actual Vehicles) <sup>2</sup>								
High-Cube Cold Storage	27.038 TSF							
Passenger Cars:		2	0	2	1	2	3	38
2-axle Trucks:		0	0	0	0	0	0	8



Land Use	Quantity Units <sup>1</sup>	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	
3-axle Trucks:		0	0	0	0	0	0	2
4+axle Trucks:		0	0	0	0	0	0	12
Total Truck Trips (Actual Vehicles):		0	0	0	0	0	0	22
High-Cube Cold Storage Trips (Actual Vehicles) <sup>2</sup>		2	0	2	1	2	3	60
Passenger Cars		31	7	38	9	30	39	308
Trucks		2	2	4	4	3	7	168
<b>Total Trips<sup>2</sup></b>		<b>33</b>	<b>9</b>	<b>42</b>	<b>13</b>	<b>33</b>	<b>46</b>	<b>476</b>

<sup>1</sup> Total Trips = Passenger Cars + Truck Trips.

Source: (Urban Crossroads, 2023b, Table 3)

Taking into consideration that the existing structures proposed for demolition generate 316 daily trips (see Table 4.10-1), the net number of new trips that would be generated by the Project is 160 trips with 12 AM peak hour trips and 44 PM peak hour trips above the trips generated by existing uses. The comparison is shown below in Table 4.10-3, *Project Net New Daily Trips*.

**Table 4.10-3 Project Net New Daily Trips**

Land Use	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	
Actual Vehicles:							
Existing Use							
Passenger Cars:	11	7	18	0	1	1	209
Trucks:	6	6	12	1	0	1	107
<b>Existing Trips (Actual Vehicles)<sup>2</sup></b>	<b>17</b>	<b>13</b>	<b>30</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>316</b>
Proposed Project							
Passenger Cars:	31	7	38	9	30	39	308
Trucks	2	2	4	4	3	7	168
High-Cube Cold Storage Trips (Actual Vehicles) <sup>2</sup>	33	9	42	13	33	46	476
Passenger Cars	20	0	20	9	29	38	99
Trucks	-4	-4	-8	3	3	6	61
<b>Total Trips<sup>2</sup></b>	<b>16</b>	<b>-4</b>	<b>12</b>	<b>12</b>	<b>32</b>	<b>44</b>	<b>160</b>

<sup>1</sup> Total Trips = Passenger Cars + Truck Trips.

Source: (Urban Crossroads, 2023a, Table 5)

**B. Connect SoCal**

The fundamental goals of SCAG’s Connect SoCal are to make the SCAG region a better place to live, work, and play for all residents regardless of race, ethnicity, or income class. As shown in Table 4.10-4, *SCAG’s Connect SoCal Goal Consistency Analysis*, the Project would not conflict with any applicable goals and policies of SCAG’s regional planning program. As such, Project impacts would be less than significant.



**Table 4.10-4 SCAG's Connect SoCal Goal Consistency Analysis**

Goals	Goal Statement	Project Consistency Discussion
1	Encourage regional economic prosperity and global competitiveness.	<u>No conflict identified.</u> This policy would be implemented by cities and the counties within the SCAG region as part of comprehensive local and regional planning efforts. The Project would improve the regional economy by redeveloping the property with a use that supports the regional supply chain, create new jobs, and creates a new regional income source that would increase the local tax base.
2	Improve mobility, accessibility, reliability, and travel safety for people and goods.	<u>No conflict identified.</u> The Project Applicant would improve the segment of East Airport Drive that abuts the Project Site with a new sidewalk, thereby improving local mobility and travel safety. Additionally, there are no components of the Project that would foreseeably result in substantial safety hazards to motorists or pedestrians, as discussed under threshold c below.
3	Enhance the preservation, security, and resilience of the regional transportation system.	<u>No conflict identified.</u> This policy would be implemented by cities and the counties within the SCAG region as part of the overall planning and maintenance of the regional transportation system. The Project would have no adverse effect on such planning or maintenance efforts. This policy provides guidance to the City of Ontario to monitor the transportation network and to coordinate with other agencies as appropriate. The Project would not conflict with the City's transportation network or the City's coordination with other agencies.
4	Increase person and goods movement and travel choices within the transportation system.	<u>No conflict identified.</u> The Project involves development of a warehouse distribution facility within a developed industrial area, along a designated truck route, and in close proximity to the State highway system, which would avoid or shorten truck-trip lengths on other roadways. The Project would promote an improved quality of life by constructing infill redevelopment near regional transportation/transit corridors, which would reduce vehicle trips, vehicle miles traveled, and air pollution. The Project would construct roadway frontage improvements, including sidewalks which would encourage walking in the Project area.





Goals	Goal Statement	Project Consistency Discussion
5	Reduce greenhouse gas emission and improve air quality.	<u>No conflict identified.</u> The Project would have a less than significant impact under the topics of <i>Air Quality</i> (refer to EIR Subsection 4.2) and <i>Greenhouse Gas Emissions</i> (refer to EIR Subsection 4.6). Additionally, and as discussed in EIR Section 3.0, <i>Project Description</i> , and Subsection 4.4, <i>Energy</i> , the Project would incorporate various measures required by the California Green Building Standards Code (CALGreen) related to building design, landscaping, and energy systems to promote the efficient use of energy. The Project also would construct frontage improvements, including sidewalks which would encourage walking in the Project area.
6	Support healthy and equitable communities.	<u>No conflict identified.</u> The proposed building design would support the health of occupants and users by using non-toxic building materials and finishes, and by using windows to maximize natural light and ventilation.
7	Adapt to a changing climate and support an integrated regional development.	<u>No conflict identified.</u> <i>Connect SoCal</i> indicates that since the adoption of the <i>Connect SoCal</i> , there have been significant drivers of change in the goods movement industry including emerging and new technologies, more complex supply chain strategies, evolving consumer demands and shifts in trade policies. Warehouse distribution and e-commerce continues to be one of the most influential factors shaping goods movement. The Project involves the redevelopment of the Project Site, historically used for corn storage and grain mill with a warehouse facility that would diversify the City of Ontario's economy and bring employment opportunities closer to the local workforce. Co-locating jobs near housing reduces greenhouse gas emissions caused by long commutes and contributes to integrated development patterns.
8	Leverage new transportation technologies and data-driven solutions that result in more efficient travel.	<u>No conflict identified.</u> <i>Connect SoCal</i> indicates that the advancement of automation is expected to have considerable positive impacts throughout regional supply chains. Notably, warehouses, such as the building proposed with the Project, are increasingly integrating automation to improve operational efficiencies in response to the surge in direct-to-consumer e-commerce. Additionally, continued developments and demonstrations of electric-powered and automated truck technologies will



Goals	Goal Statement	Project Consistency Discussion
		alter the goods movement environment with far-reaching effects ranging from employment to highway safety. The Project would meet contemporary industry standards to support advancements in these and other transportation technologies.
9	Encourage development of diverse housing types in areas that are supported by multiple transportation options.	<u>Not applicable.</u> The Project is located in an area designated for employment-generating uses and is not planned for housing.
10	Promote conservation of natural and agricultural lands and restoration of habitats.	<u>Not applicable.</u> The Project Site is completely disturbed and developed under existing conditions and has been so for at least 49 years. The entire Project Site is developed and there are no natural habitat or agricultural land onsite.

Source: (SCAG, 2020a, p. 9)

**C. City of Ontario Policy Plan**

The following provides an analysis of the Project’s consistency with applicable goals and policies of the Policy Plan. As demonstrated in Table 4.10-5, *Mobility Element Policy Consistency Analysis*, the Project would not conflict with the City’s Mobility Element, and impacts associated with conflict of an applicable program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities would be less than significant.

**Table 4.10-5 Mobility Element Policy Consistency Analysis**

Policy	Project Consistency
<i>Goal M-1: A system of roadways that meets the mobility needs of a dynamic and prosperous Ontario.</i>	
Policy M-1.1 Roadway Design and Maintenance. We require our roadways to: <ol style="list-style-type: none"> <li>1. Comply with federal, state and local design and safety standards;</li> <li>2. Meet the needs of multiple transportation modes and users;</li> <li>3. Handle the capacity envisioned in the Functional Roadway Classification Plan;</li> <li>4. Be maintained in accordance with best practices;</li> <li>5. Be compatible with the streetscape and surrounding land uses; and</li> <li>6. Promote the efficient flow of all modes of traffic through the implementation of intelligent transportation systems and travel demand management strategies.</li> </ol>	<u>No conflict identified.</u> As a standard condition of approval, the Project would comply with all applicable federal, State, and local design and safety standards. In addition, the Project would provide sidewalks for pedestrian access and bike racks to meet the needs of multiple transportation modes and users. The Project area is generally surrounded by industrial uses and the Project has been designed to be compatible with the streetscape and surrounding land uses.
Policy M-1.2 Mitigation of Impacts. We require development to mitigate its traffic impacts.	<u>No conflict identified.</u> As discussed in Threshold b, the Project would result in a significant VMT impact.



Policy	Project Consistency
	<p>There are mitigation measures available to reduce VMT impacts; however, the effectiveness of these measures are dependent on a yet unknown building tenant(s) and reductions cannot be guaranteed. Therefore, Project’s VMT impacts would remain significant and unavoidable. The State adopted VMT as a measurement of transportation impacts in compliance with SB 743, which was codified in Public Resources Code Section 21099. Pursuant to Section 21099, the criteria for determining the significance of transportation impacts must “promote the reduction of greenhouse gas emissions [GHG], the development of multimodal transportation networks, and a diversity of land uses.” In other words, the significance of VMT impacts has a direct correlation to GHG impacts. As concluded in EIR Subsection 4.6, <i>Greenhouse Gas Emissions</i>, the Project would have a less than significant greenhouse gas emissions impact. Inconsistency with a goal or policy of an applicable plan is not itself an environmental impact. Such an inconsistency may indicate a likelihood of an environmental impact or to support such a conclusion, but an inconsistency is not inherently an environmental impact itself. Further, it is well-established in CEQA case law that a project does not have to be consistent with each and every goal or policy in a plan to be found consistent with the overall intent of the plan. In this case, although the Project would result in a significant VMT impact, the Project’s GHG impact is less than significant. As such, no significant physical environmental effect would result from the Project exceeding the City’s baseline VMT.</p>
<p><i>Goal M-2: A system of trails and corridors that facilitate and encourage active modes of transportation.</i></p>	
<p>Policy M-2.2: Bicycle System. We provide off-street multipurpose trails and Class II bikeways as our preferred paths of travel and use the Class III for connectivity in constrained circumstances. When truck routes and bicycle facilities share a right-of-way, we prefer Class I or Class IV bicycle facilities. We require new development to include bicycle facilities, such as bicycle parking and secure storage areas.</p>	<p><u>No conflict identified.</u> The Project Site is not located along a bikeway. The closest bikeway to the Project Site is located at Ontario Mills Parkway. The Project would be confined to the Project Site and would not conflict within the existing bikeways. In addition, the Project would provide bike racks in accordance with CALGreen requirements to accommodate bicycle access to and from the Project site.</p>
<p>Policy M-2.3: Pedestrian Walkways. We require streets to include sidewalks and visible crosswalks at major intersections where necessary to promote safe and comfortable mobility between residential areas, businesses,</p>	<p><u>No conflict identified.</u> The Project Site’s features (buildings, parking areas, etc.) would be connected by ADA compliant sidewalks and striped crosswalks within the parking areas to the existing ensure pedestrian access throughout Project Site.</p>



Policy	Project Consistency
schools, parks, recreation areas, and other key destination points.	Additionally, the Project would install sidewalk on East Airport Drive.
<i>Goal M-4: An efficient flow of goods through the City that maximizes economic benefits and minimizes negative impacts.</i>	
Policy M-4.1: We designate and maintain a network of City truck routes that provide for the safe and efficient transport of goods while minimizing negative impacts on local circulation and noise-sensitive land uses, as shown on Exhibit M-04, Truck Routes. We will minimize conflicts on truck routes through the design and implementation of buffers between travel lanes and pedestrian and bicycle facilities on designated truck routes.	<u>No conflict identified.</u> According to the Exhibit M-04, the closest truck route to the Project Site is East Airport Drive, which abuts the Project Site to the south. Trucks servicing the Project would reasonably not utilize City roads that prohibit truck traffic. The Project’s trucks would be required to travel on designated truck routes to minimize negative impacts to local circulation and noise-sensitive land uses.
Policy M-4.4: Environmental Considerations. We support both local and regional efforts to reduce/eliminate the negative environmental impacts of goods movement through the planning and implementation of truck routing and the development of a plan to evaluate the future needs of clean fueling/recharging and electrified truck parking.	<u>No conflict identified.</u> The Project Site located in an area designated for industrial uses and within close proximity to I-10 and I-15, which are major transportation facilities. The proposed building would accommodate the movement of goods throughout the region, which would shorten the length of vehicular trips and increase the reliability of the movement of goods throughout the region.

***Threshold b: Would the Project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?***

Changes to State CEQA Guidelines were adopted in December 2018, which requires all lead agencies to adopt vehicle miles traveled (VMT) as a replacement for automobile delay-based level of service (LOS) as the new measurement for identifying transportation impacts for land use projects. This statewide mandate took effect on July 1, 2020. To aid in this transition, the Governor’s Office of Planning and Research (OPR) released a Technical Advisory on Evaluating Transportation Impacts in CEQA. Based on the Technical Advisory, the City of Ontario has developed and adopted their own VMT methodologies and thresholds, which were adopted by City Council in June 2020.

City Guidelines identify projects that meet certain VMT screening criteria may be presumed to result in a less than significant transportation impact. The City of Ontario utilizes the San Bernardino County Transportation Authority (SBCTA) VMT Screening Tool. The Screening Tool allows users to select an assessor’s parcel number (APN) to determine if a project’s location meets one or more of the screening thresholds for land use projects identified in the City Guidelines. The City Guidelines lists the following VMT screening criteria:

- Transit Priority Area (TPA) Screening
- Low VMT Area Screening
- Project Type Screening



A land use project need only meet one of the above screening criteria to result in a less than significant impact.

**A. TPA Screening**

Consistent with guidance identified in the City Guidelines, projects located within a Transit Priority Area (TPA) (i.e., within ½ mile of an existing “major transit stop” or an existing stop along a “high-quality transit corridor”) may be presumed to have a less than significant impact absent substantial evidence to the contrary. However, the presumption may not be appropriate if a project:

- Has a Floor Area Ratio (FAR) of less than 0.75;
- Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking);
- Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization); or
- Replaces affordable residential units with a smaller number of moderate or high-income residential units.

The Screening Tool was utilized to locate the Project Site and its proximity to a TPA. The Project Site is not located within ½ mile of an existing major transit stop, or along a high-quality transit corridor. Therefore, the Project would not meet the TPA Screening threshold.

**B. Low VMT Area Screening**

As noted in the Technical Advisory, “Residential and office projects that locate in areas with low VMT and that incorporate similar features (density, mix of uses, and transit accessibility) will tend to exhibit similarly low VMT.” The City Guidelines state that projects may be presumed to have a less than significant VMT impact if located in an already low VMT generating traffic analysis zones (TAZs) that generates a VMT per service population (SP) that does not exceed the Citywide average under General Plan Buildout condition VMT per service population. The Screening Tool uses the sub-regional San Bernardino Transportation Analysis Model (SBTAM) to measure VMT performance within individual TAZ’s within the region. The Project’s physical location based on parcel number is selected in the Screening Tool to determine the TAZ in which the Project will reside. The Project’s TAZs VMT per service population was compared to Citywide average buildout VMT per service population. The parcel containing the Project was selected and the Screening Tool was run for origin-destination (OD) VMT per service population, and results showed the Project is not located within a low VMT generating zone. Therefore, the Project would not meet the Low VMT Area Screening threshold.



**C. Project Type Screening**

The City Guidelines identify that local serving retail less than 50,000 square feet or other local serving essential services (e.g., day care centers, public schools, medical/dental office buildings, etc.) are presumed to have a less than significant impact absent substantial evidence to the contrary. The Project as intended does not contain any local serving uses. Additionally, the City Guidelines state that small projects generating fewer than 110 daily vehicle trips or less may be presumed to have a less than significant impact, subject to discretionary approval by the City. As shown in Table 4.10-1, the Project currently generates an average of 316 vehicle trips per day. Trips generated by the Project’s proposed land uses have been estimated based on trip generation rates collected by the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition, 2021. The Project is anticipated to generate 476 daily vehicle trip-ends per day. Therefore, the Project is anticipated to generate 160 net new average daily trips, exceeding the 110 daily vehicle trip threshold, and the Project would not meet the Project Type Screening threshold.

**D. VMT Analysis**

As the Project was not found to meet any of the aforementioned VMT screening criteria, a project level VMT analysis (*Technical Appendix J* to this EIR) was prepared to assess the Project’s potential impact to VMT. Consistent with City Guidelines and standard VMT calculation methods, total VMT is calculated from SBTAM’s OD trip matrices and then divided by a project’s service population to derive the VMT efficiency metric VMT per service population. Table 4.10-6, *Total VMT*, presents Project-generated total VMT calculated as the total of passenger car, light-duty, medium-duty, and heavy-duty truck trips.

**Table 4.10-6 Total VMT**

	<b>Base Year (2016)</b>	<b>Buildout Year (2050)</b>	<b>Baseline (2022)</b>
<b>Automobile VMT</b>	4,337	3,939	4,299
<b>Truck VMT</b>	3,278	4,085	3,357
<b>Total VMT</b>	7,616	8,025	7,655

Source: (Urban Crossroads, 2023a, Table 8)

The City Guidelines have identified following recommended threshold: a significant impact would occur if the project VMT per Service Population exceeds the Citywide average for Service Population under General Plan Buildout Conditions. The Project’s baseline and buildout VMT per service population is calculated by dividing by the total VMT the service population or in this case the number of employees generated<sup>1</sup>. As shown in Table 4.10-7, *Project VMT per Service Population*, the City of Ontario has identified a VMT per SP significance threshold of 27.61, which is the City of Ontario’s General Plan Buildout with the TOP model. As shown below, the Project would exceed the City’s VMT per SP impact threshold for both the baseline and TOP buildout conditions (Urban Crossroads, 2023a). Therefore, impacts would be significant.

<sup>1</sup> According to Southern California Association of Governments’ (SCAG’s) Employment Density Study, the Project would generate approximately 226 employees.



**Table 4.10-7 Project VMT per Service Population**

	Baseline	Buildout Year
<b>Impact Threshold</b>	27.61	27.61
<b>Project</b>	33.84	35.47
<b>Percent Change</b>	+22.56%	+28.47%
<b>Potentially Significant?</b>	Yes	Yes

Source: (Urban Crossroads, 2023a, Table 10)

***Threshold c:*** *Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

The Project’s potential to increase hazards as a result of a geometric design feature has been assessed to provide adequate truck access/circulation. The Project’s circulation plan is designed to be compatible with all foreseeable vehicles. Vehicular access would be provided via two driveways that would connect with East Airport Drive. Both driveways would include enhanced decorative paving and would provide inbound/outbound access for passenger vehicles and trucks. The driveways are designed as 40 feet wide to accommodate the wide turning radius of the heavy trucks.

The types of traffic generated during operation of the Project (i.e., passenger cars and trucks) would be compatible with the type of traffic generated by surrounding development. All proposed improvements within the public right-of-way would be installed in conformance with City design standards. If any component of Project construction would occur in the public right-of-way and require the partial or full closure of a sidewalk and/or travel lane, all work would be required to adhere to the applicable construction control practices that are specified in the *State of California Department of Transportation Construction Manual and the California Manual on Uniform Traffic Control Devices*, to minimize potential safety hazards. The City of Ontario Engineering Department reviewed the Project’s application materials and determined that no hazardous transportation design features would be introduced within the City public right-of-way through implementation of the Project. At the time of final grading, landscape, and street improvement plans, the City will review project access points to ensure adequate sight distance. Based on the foregoing information, the Project’s construction and operation would not create or substantially increase safety hazards due to a design feature or incompatible use and impacts would be less than significant.

***Threshold d:*** *Would the Project result in inadequate emergency access?*

The Project is designed to provide access for all emergency vehicles and meet all applicable City of Ontario Fire and Police Department access requirements to ensure that adequate access would be provided for emergency vehicles at Project build out. During construction activities that include road and sidewalk improvements, the Project would provide adequate emergency access along abutting roadways during temporary construction activities within the public right-of-way. Any Project construction activities that would occur within the East Airport Drive public right-of-way and requires a partial or full closure of a sidewalk or vehicle travel lane would require a traffic control plan that



complies with the *California Manual on Uniform Traffic Control Devices* and that must be approved by the City of Ontario to ensure that emergency response is not adversely affected. As a result, the Project would not a less than significant impact to emergency access.

#### 4.10.5 CUMULATIVE IMPACT ANALYSIS

As described under the response to Threshold “a,” the Project would not conflict with an applicable program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities and, thus, would not cumulatively contribute to a conflict or obstruction with an applicable transportation-related program.

The City Guidelines, consistent with OPR’s Technical Advisory states that cumulative impacts on VMT “... metrics such as VMT per capita or VMT per employee, i.e., metrics framed in terms of efficiency (as recommended below for use on residential and office projects), cannot be summed because they employ a denominator. A project that falls below an efficiency-based threshold that is aligned with long-term goals and relevant plans has no cumulative impact distinct from the project impact. Accordingly, a finding of a less than significant project impact would imply a less than significant cumulative impact and vice versa. This is similar to the analysis typically conducted for greenhouse gas emissions, air quality impacts, and impacts that utilize plan compliance as a threshold of significance.” Since the Project was found to have a significant and unavoidable impact at the project level, it is considered to be cumulatively-considerable and therefore to have a significant cumulative impact as well.

The Project would not contribute to a significant cumulative impact under the topics discussed under Thresholds “c” and “d” because the Project would not cause or exacerbate existing transportation design safety concerns or adversely affect emergency access and there are no cumulative development projects adjacent to the Project Site that could contribute additive effects that could degrade motor vehicle or pedestrian safety or emergency vehicle access in proximity to the Project Site.

#### 4.10.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold a: Less-than-Significant Impact. The Project would not conflict with an applicable program, plan, ordinance, or policy addressing the circulation system.

Threshold b: Significant Direct and Cumulatively-Considerable Impact. The Project’s vehicle traffic would exceed the City’s VMT per service population impact threshold for both the baseline and cumulative conditions.

Threshold c: Less-than-Significant Impact. The Project would not introduce any significant transportation safety hazards due to a design feature or incompatible use.

Threshold d: Less-than-Significant Impact. Adequate emergency access would be provided to the Project Site during construction and long-term operation. The Project would not result in inadequate emergency access to the Site or surrounding properties.





#### 4.10.7 MITIGATION

MM 4.10-1 Prior to the issuance of a certificate of occupancy, the building operator shall prepare and submit for approval to the City of Ontario Community Development Department a Transportation Demand Management Program (TDMP). The TDMP shall specify measures that the building operator will commit to implementing in an effort to reduce vehicle miles traveled for its on-site employees. The TDMP shall include provisions, incentives, and programs for employee ridesharing programs, carpools, vanpools, transit use, bike travel, avoidance of peak periods of traffic congestion, and on-site parking preferences for zero-emission vehicles, among other items that have reasonable potential of reducing employee reliance on single-occupant gas-powered vehicles during peak time travel periods (rush hours).

#### 4.10.8 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Threshold b: Significant and Unavoidable Direct and Cumulatively-Considerable Impact. Transportation Demand Management Plan (TDMP) strategies in the form of commute trip reduction program measures were reviewed for the purpose of reducing Project related VMT impacts (i.e., commute trips). The feasibility and level of effectiveness of each trip reduction measure was determined based on the location of the Project Site and the Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity (2021 Handbook). As the future building tenant(s) is not currently known for the Project, the effectiveness of commute trip reduction measures such as carpooling and vanpooling cannot be determined with certainty. In addition to specific tenancy considerations, locational context is also a major factor relevant to the potential application and effectiveness of TDMP measures. Given the Project Site's location in an industrial area with no nearby transit routes, an incomplete sidewalk and bikeway system, and a lack of nearby residential areas that made walking or biking to work easy, the Project Site location is not favorable to reduce VMT per service population to below a level of significance.

Under the most favorable circumstances and ideal conditions a project can realize a maximum reduction of 45% in commute VMT through implementation of the trip reduction program measures listed below. However, ideal conditions are rarely realized as variables such as a project's locational context limitation (i.e., non-urban areas). Additionally, to achieve ideal conditions a project must achieve one hundred percent employee participation and maximum employee eligibility, which are not generally expected. The proposed Project would require a minimum VMT per service population reduction of 25.58% to achieve a less than significant impact, which cannot be assured for the proposed Project. The 2021 Handbook lists the following possible trip reduction measures.

- T-5 – Implement Commute Trip Reduction Marketing (up to 4.0% reduction)
- T-8 – Provide Ridesharing Program (up to 8% reduction)
- T-9 – Implement Subsidized or Discounted Transit Program (up to 5.5% reduction)
- T-10 – Provide End-of-Trip Facilities (up to 4.4% reduction)
- T-11 – Provide Employer-Sponsored Vanpool (up to 20.4% reduction)



- T-12 – Price Workplace Parking (up to 20.0% reduction)
- T-13 – Implement Employee Parking Cash-Out (up to 12.0% reduction)

Mitigation measure MM 4.10-1 will reduce the Project's VMT per service population by some percentage based on the level of participation achieved, but based on the above-described factors, it is not feasible to reduce VMT to below a level of significance. However, as the Project area and surrounding communities develop as envisioned under the City of Ontario General Plan (TOP), new residential, retail, and industrial development would be implemented. These actions could collectively alter transportation patterns, improve the region's jobs/housing ratio, reduce VMT, and support implementation of new or alternative TDM measures. With the implementation of mitigation measure MM 4.10-1, VMT is expected to be reduced, but the Project's impacts related to VMT would still be significant and unavoidable.



## 4.11 TRIBAL CULTURAL RESOURCES

The analysis in this subsection relies on information from a cultural resources record search titled “Cultural Resources Records Search Results for the 5355 Airport Drive Project, Ontario, California”, dated May 20, 2022. The report was prepared by BFSA and is included as *Technical Appendix C* to this EIR. The analysis in this subsection also contains information obtained by the City during consultation with local Native American tribal representatives. All references used in this subsection are listed in EIR Section 7.0, *References*.

In addition, much of the written and oral communication between Native American tribes and the City, is considered confidential in respect to places that may have traditional cultural significance (Government Code Section 65352.4), and although relied upon in part to inform the preparation of this EIR subsection, those communications are treated as confidential and are not available for public review. Under existing law, environmental documents must not include information about the location of archaeological sites or sacred lands or any other information that is exempt from public disclosure pursuant to the Public Records Act (California Code Regulations Section 15120(d)).

### 4.11.1 EXISTING CONDITIONS

BFSA performed an archaeological records search through the South Central Coastal Information Center (SCCIC) at California State University (CSU), Fullerton. The records search provided information regarding previous archaeological studies in the Project area and any previously recorded sites within a one-half mile radius of the Project Site. Three resources were identified within one-half mile of the Project Site; however, none were located within the Project boundaries. The resources include a historic railroad track alignment, a historic foundation, and a historic transmission line alignment. (BFSA, 2022)

### 4.11.2 REGULATORY SETTING

The following is a brief description of applicable State environmental laws and related regulations governing the protection of tribal cultural resources.

#### ***A. State Plan, Policies, and Regulations***

##### ***1. Assembly Bill 52 (AB 52)***

California AB 52 (2014) Chapter 532 amended Section 5097.94 of, and added Sections 21073, 21074, 21080.3.1, 21080.3.2, 21802.3, 21083.09, 21084.2 and 21084.3 to the California Public Resources Code, relating to Native Americans. AB 52 was approved on September 25, 2014. The legislature added new requirements regarding tribal cultural resources in AB 52. By including tribal cultural resources early in the CEQA process, the legislature intended to ensure that local and Tribal governments, public agencies, and project proponents would have information available, early in the project planning process, to identify and address potential adverse impacts to tribal cultural resources (OPR, 2017b). By taking this proactive approach, the legislature also intended to reduce the potential for delay and conflicts in the environmental review process.



The Public Resources Code now establishes that “[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment.” (Pub. Resources Code, Section 21084.2.) To help determine whether a project may have such an effect, the Public Resources Code requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. (OPR, 2017b)

If a lead agency determines that a project may cause a substantial adverse change to tribal cultural resources, the lead agency must consider measures to mitigate that impact. Public Resources Code Section 20184.3 (b)(2) provides examples of mitigation measures that lead agencies may consider to avoid or minimize impacts to tribal cultural resources

Section 21074 of the Public Resources Code defines “tribal cultural resources.” In brief, in order to be considered a “tribal cultural resource,” a resource must be either:

- (1) listed, or determined to be eligible for listing, on the national, state, or local register of historic resources, or
- (2) a resource that the lead agency chooses, in its discretion, to treat as a tribal cultural resource.

In the latter instance, the lead agency must determine that the resource meets the criteria for listing in the state register of historic resources. In applying those criteria, a lead agency must consider the value of the resource to the tribe. (OPR, 2017b)

## **2. State Health and Safety Code**

California Health and Safety Code Section 7050.5(b) requires that excavation and disturbance activities must cease “In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery...” until the coroner can determine regarding the circumstances, manner, and cause of any death (CA Legislative Info, 1987). The coroner is then required to make recommendations concerning the treatment and disposition of the human remains. Further, this section of the code makes it a misdemeanor to intentionally disturb, mutilate or remove interred human remains. Section 7051 specifies that the removal of human remains from “internment or a place of storage while awaiting internment” with the intent to sell them or to dissect them with “malice or wantonness” is a public offense punishable by imprisonment in a state prison. Lastly, Health and Safety Code Sections 8010-8011 establish the California Native American Graves Protection and Repatriation Act consistent with the federal law addressing the same. The Act stresses that “all California Indian human remains and cultural items are to be treated with dignity and respect.” It encourages voluntary disclosure and return of remains and cultural items by publicly funded agencies and museums in California. It also outlines the need for aiding California Indian tribes, including non-federally recognized tribes, in filing repatriation claims.



California Health and Safety Code, Section 5097.98 states that whenever the commission receives notification of a discovery of Native American human remains pursuant to HSC subdivision (c) of Section 7050.5, it shall immediately notify those persons that are the most likely descendants. The descendants may inspect the site and make recommendations to the landowner as to the treatment of the human remains. The landowner shall ensure that the immediate vicinity around the remains is not damaged or disturbed by further development activity until coordination has occurred with the descendants regarding their recommendations for treatment, taking into account the possibility of multiple human remains. The descendants shall complete their inspection and make recommendations within 48 hours of being granted access to the site. (CA Legislative Info, n.d.)

#### 4.11.3 METHODOLOGY FOR EVALUATING TRIBAL CULTURAL RESOURCES IMPACTS

The analysis of tribal cultural resources is based on a cultural resource records search through SCCIC at CSU Fullerton, historic background research, a review of historic aerial photographs, and a visit to the Project Site. In addition, this analysis is based on consultation between the City and interested Native American tribes pursuant to AB 52.

#### 4.11.4 BASIS FOR DETERMINING SIGNIFICANCE

According to Section XVII of Appendix G to the CEQA Guidelines, the proposed Project would result in a significant impact to tribal resources if the Project or any Project-related component would (OPR, 2019):

- a. *Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*
  - i. *Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or*
  - ii. *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.*

#### 4.11.5 IMPACT ANALYSIS

***Threshold a:*** *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size*



*and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?*

No prehistoric resource sites, features, places, or landscapes were identified on the Project Site that are either listed or eligible for listing in the California Register of Historic Places. To be eligible for the Register, a resource must include the following:

- (A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;*
- (B) Is associated with the lives of persons important in our past;*
- (C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or*
- (D) Has yielded, or may be likely to yield, information important in prehistory or history.*

No resources were identified on the Project Site that meet any of the four criteria listed above to be eligible for the California Register and no pre/protohistoric resource sites or isolates are known to exist on the Project Site. (BFSA, 2022) Furthermore, no substantial evidence was presented to or found by the City that led to the identification of any resources on the Project Site that in the City's discretion had the potential to be considered a tribal cultural resource.

As part of the AB 52 consultation process required by State law, the City sent notification of the Project to Native American tribes with possible traditional or cultural affiliation to the Project area. The City consulted with each tribe that requested consultation. During the course of the tribal consultation process, tribal monitoring was requested during the Project's ground-disturbing construction activities. Due to the Project Site's location in an area where Native American tribes are known to have a cultural affiliation, there is the possibility that pre/protohistoric archaeological resources, including tribal cultural resources, could be encountered during ground-disturbing construction activities. In the event that a tribal cultural resource, as defined in Public Resources Code Section 21074, were to be found on the Project Site during construction – and not properly identified and treated – a significant impact would occur. Mitigation is required.

As discussed under EIR Subsection 4.3, the Project Site does not contain a known cemetery site and human remains have not been previously discovered on the Site. Mandatory compliance with State law (California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98) would



ensure that, in the unlikely event that human remains are discovered during Project construction, the remains would be identified in accordance with proper protocols and the remains would be treated or disposed with appropriate dignity. Accordingly, the Project would not result in a substantial adverse effect to tribal cultural resources associated with human remains.

#### **4.11.6 CUMULATIVE IMPACT ANALYSIS**

The potential for Project construction to result in cumulatively-considerable impacts to tribal, religious, and cultural resources were analyzed in conjunction with other projects located in southwestern San Bernardino County and northwestern Riverside County that occur in the same tribal influence areas as the Project Site. The other development projects within these areas would have a similar potential to uncover tribal cultural resources during construction activities. Therefore, the potential for Project construction to impact tribal cultural resources is a cumulatively-considerable impact for which mitigation is required.

#### **4.11.7 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION**

Threshold a: Significant Direct and Cumulatively-Considerable Impact. The Project Site does not contain any recorded, significant tribal cultural resource sites; therefore, the Project would not cause a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources or a local register of historical resources. Nonetheless, Project construction activities have the potential to unearth and adversely impact tribal cultural resources that may be buried at the Project Site.

#### **4.11.8 MITIGATION**

MMs 4.3-1 through 4.3-3 shall apply (refer to subsection 4.3, *Cultural Resources*).

#### **4.11.9 SIGNIFICANCE OF IMPACTS AFTER MITIGATION**

Threshold a: Less-than-Significant with Mitigation Incorporated. Implementation of MMs 4.4-1 through 4.4-3 would ensure the proper identification and subsequent treatment of any significant tribal cultural resources that may be encountered during ground-disturbing activities associated with Project development. With implementation of the required mitigation, the Project's potential impact to significant tribal cultural resources would be reduced to less-than-significant.



## 4.12 UTILITIES AND SERVICE SYSTEMS

This Subsection addresses the topics of water service and supply, wastewater collection and treatment, storm water conveyance facilities, and solid waste collection and disposal. The analysis contained in this Subsection is also based in part on information obtained from the Project's Preliminary Hydrology Report (Westland, 2022a) (*Technical Appendix H1*), the City of Ontario Policy Plan, and the City of Ontario Municipal Code.

### 4.12.1 EXISTING CONDITIONS

#### A. Water Service

The Project Site is located in the service area of the Ontario Municipal Utilities Company (OMUC). The OMUC service area encompasses the entire City of Ontario. Under existing conditions, there is an existing 12-inch water main on East Airport Drive and a 24-inch recycled water main on East Airport Drive that ends approximately west of South Wineville Avenue.

According to the OMUC's Urban Water Management Plan (UWMP), the City's water supply sources include: groundwater pumped from the Chino Basin; treated groundwater from the Chino Basin produced by the Chino Basin Desalter Authority; treated, imported water purchased from Metropolitan Water District of Southern California (MWD) through Water Facilities Authority; groundwater and/or surface water purchased from San Antonio Water Company; and recycled water purchased from Inland Empire Utilities Agency (IEUA). (OMUC, 2021)

#### B. Wastewater Service and Treatment

Sanitary sewage generated at the Project Site currently discharges to surface septic systems located beneath the site. Two known septic systems are located on the eastern parcel and one known system is located on the western parcel. Interviews with Property personnel on the western parcel indicated they were unaware of the location of the septic systems. (Farallon, 2022, pp. 8-4)

#### C. Stormwater Conveyance Facilities

The natural drainage pattern for the existing condition of the Project Site is north to south. There is no existing public storm drain systems at the frontage of the Project Site. Stormwater sheet flows south and discharge onto the existing curb and gutter on Airport Drive. Runoff flows east along Airport Drive and discharge into an existing catch basin located approximately 1,500 east of the Project Site. The existing catch basin is connected to the Lower Etiwanda Creek Channel, which conveys stormwater to the Wineville Basin. (Westland, 2022a)

#### D. Solid Waste Collection and Disposal

The City of Ontario collects solid waste for residences and businesses within the City, including the Project Site. Based on data reported to the State Department of Resources Recycling and Recovery (CalRecycle), in 2019, the City generated 287,983 tons of solid waste requiring disposal. A majority (218,454 tons) of the City's solid waste, in 2019, was disposed at the El Sobrante Landfill, followed





by disposal of waste at the Badlands Sanitary Landfill (47,574 tons), and Mid-Valley Sanitary Landfill (14,099 tons). The remaining 7,856 tons of City waste generated in 2019 was disposed of at the following locations: Antelope Valley Public Landfill, Azusa Landfill, Blythe Sanitary Landfill, Chiquita Canyon Sanitary Landfill, Clean Harbors Buttonwillow LLC, Frank R. Bowerman Sanitary Landfill, Lamb Canyon Sanitary Landfill, Lost Hills Composting & Bioenergy, Olinda Alpha Landfill, Prima Deshecha Landfill, San Timoteo Sanitary Landfill, Simi Valley Landfill & Recycling Center, and Victorville Sanitary Landfill. (CalRecycle, 2019)

The Badlands Sanitary Landfill has a permitted disposal capacity of 4,800 tons per day with a remaining capacity of 15,748,799 cubic yards. The Badlands Sanitary Landfill is estimated to reach capacity, at the earliest time, in the year 2022. (CalRecycle, 2022a) The El Sobrante Landfill is permitted to received 16,054 tons of solid waste per day with a remaining capacity of 143,977,170 cubic yards. The El Sobrante Landfill is estimated to reach capacity, at the earliest time, in the year 2051. (CalRecycle, 2022b) The Mid-Valley Sanitary Landfill is permitted to received 7,500 tons of solid waste per day with a remaining capacity of 61,219,377 cubic yards. The El Sobrante Landfill is estimated to reach capacity, at the earliest time, in the year 2045. (CalRecycle, 2022c)

#### ***E. Dry Utilities***

Southern California Edison (SCE) provides electricity services to a large majority of southern and central California, including the Project Site. SCE serves 180 cities across 50,000 square miles of service area. Existing overhead power lines occur along East Airport Drive that are aligned in an east-west direction along the southern boundary of the Project Site. (Google Earth, 2022)

The Project Site is located in the natural gas service area of Southern California Gas Company (SoCalGas), which maintains local underground service lines in the City. Under existing conditions, there is an existing 10-inch gas line on East Airport Drive.

### **4.12.2 REGULATORY SETTING**

The following is a brief description of the federal, state, and local environmental laws and related regulations related to utilities and service systems.

#### ***A. State Plan, Policies, and Regulations***

##### ***1. Urban Water Management Planning Act***

The Urban Water Management Planning Act (UWMP Act) was proposed and adopted to ensure that water planning is conducted at the local level, as the State of California recognized that two water agencies in the same region could have very different impacts from a drought. The UWMP Act requires water agencies to develop Urban Water Management Plans (UWMPs) over a 20-year planning horizon, and further required UWMPs to be updated every five years. UWMPs are exempt from compliance with CEQA. (DWR, 2016, p. 1-2)

The UWMPs provide a framework for long term water planning and inform the public of a supplier's plans for long-term resource planning that ensures adequate water supplies for existing and future



demands. This part of the California Water Code (CWC) requires urban water suppliers to report, describe, and evaluate:

- Water deliveries and uses;
- Water supply sources;
- Efficient water uses;
- Demand management measures; and
- Water shortage contingency planning. (DWR, 2016, p. 1-3)

The UWMP Act has been modified over the years in response to the State's water shortages, droughts, and other factors. A significant amendment was made in 2009, after the drought of 2007-2009 and as a result of the governor's call for a statewide 20 percent reduction in urban water use by the year 2020. This was the Water Conservation Act of 2009, also known as SB X7-7. This Act required agencies to establish water use targets for 2015 and 2020 that would result in statewide savings of 20 percent by 2020. Beginning in 2016, retail water suppliers are required to comply with the water conservation requirements in SB X7-7 in order to be eligible for State water grants or loans. Retail water agencies are required to set targets and track progress toward decreasing daily per capita urban water use in their service area, which will assist the State in meeting its 20 percent reduction goal by 2020. (DWR, 2016, p. 1-2)

## 2. *California Senate Bill 610*

The California Water Code (Water Code) §§ 10910 through 10915 were amended by the enactment of SB 610 in 2002. SB 610 requires an assessment of whether available water supplies are sufficient to serve the demand generated by a proposed project, as well as the reasonably foreseeable cumulative demand in the region over the next 20 years under average normal year, single dry year, and multiple dry year conditions. Under SB 610, water assessments must be furnished to local governments for inclusion in any environmental documentation for certain projects (as defined in Water Code 10912 [a]) subject to CEQA. (DWR, 2003; CA Legislative Info, n.d.) For the purposes of SB 610, "project" means any of the following:

- (1) A proposed residential development of more than 500 dwelling units.
- (2) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
- (3) A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
- (4) A proposed hotel or motel, or both, having more than 500 rooms.
- (5) A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
- (6) A mixed-use project that includes one or more of the projects specified in this subdivision.
- (7) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling unit project. (DWR, 2003; CA Legislative Info, n.d.)



Because the Project proposes an approximately 270,337 square feet (s.f.) of industrial building, a water supply assessment was not required.

**3. CA. Water Code § 10610 et seq. (Senate Bill 901)**

Signed into law on October 16, 1995, Senate Bill (SB) 901 required every urban water supplier to identify as part of its urban water management plan, the existing and planned sources of water available to the supplier over a prescribed 5-year period. The code requires the water service purveyor to assess the projected water demand associated with a proposed project under environmental review. Later provisions of SB 901 required compliance in the event that the proposed Project involved the adoption of a specific plan, amendment to, or revision of the land use element of a general plan or specific plan that would result in a net increase in the state population density. Upon completion of the water assessment, cities and counties may agree or disagree with the conclusions of the water service purveyors, but cannot approve projects in the face of documented water shortfalls without first making certain findings. (CA Legislative Info, n.d.)

**4. Executive Order B-29-15**

Executive Order (EO) B-29-15 ordered the State Water Resources Control Board (SWRCB) to impose restrictions to achieve a 25-percent reduction in potable urban water usage through February 28, 2016; directed the California Department of Water Resources (DWR) to lead a statewide initiative, in partnership with local agencies, to collectively replace 50 million square feet of lawns and ornamental turf with drought tolerant landscapes; and directed the California Energy Commission to implement a statewide appliance rebate program to provide monetary incentives for the replacement of inefficient household devices. (SWRCB, 2020)

**5. Executive Order B-37-16**

Signed on May 9, 2016, EO B-37-16 established a new water use efficiency framework for California. The order bolstered the state's drought resilience and preparedness by establishing longer-term water conservation measures that include permanent monthly water use reporting, new urban water use targets, reducing system leaks and eliminating clearly wasteful practices, strengthening urban drought contingency plans, and improving agricultural water management and drought plans. (SWRCB, 2020)

**6. Sustainable Groundwater Management Act (SGMA)**

The Sustainable Groundwater Management Act (SGMA) established a new structure for managing California's groundwater resources at a local level by local agencies. SGMA required, by June 30, 2017, the formation of locally-controlled groundwater sustainability agencies (GSAs) in the State's high- and medium-priority groundwater basins and subbasins (basins). A GSA is responsible for developing and implementing a groundwater sustainability plan (GSP) to meet the sustainability goal of the basin to ensure that it is operated within its sustainable yield, without causing undesirable results. The GSP Emergency Regulations for evaluating GSPs, the implementation of GSPs, and coordination



agreements were adopted by DWR and approved by the California Water Commission on May 18, 2016. (DWR, n.d.)

#### 7. *California Solid Waste Integrated Waste Management Act (AB 939, 1989)*

The Integrated Waste Management Act (IWMA) established an integrated waste management hierarchy to guide the California Integrated Waste Management Board (CIWMB) and local agencies in implementation, in order of priority: (1) source reduction, (2) recycling and composting, and (3) environmentally safe transformation and land disposal (it should be noted that the CIWMB no longer exists, and its duties have been assumed by CalRecycle). As part of the IWMA, the CIWMB was given a purpose to mandate the reduction of disposed waste. (CalRecycle, 2018a) The IWMA also required:

- The establishment of a task force to coordinate the development of city Source Reduction and Recycling Elements (SRREs) and a countywide siting element. (CalRecycle, 2018a)
- Each city, by July 1, 1991, to prepare, adopt and submit a SRRE to the county which includes the following components: waste characterization; source reduction; recycling; composting; solid waste facility capacity; education and public information; funding; special waste (asbestos, sewage sludge, etc.); and household hazardous waste. (CalRecycle, 2018a)
- Each county, by January 1, 1991, to prepare a SRRE for its unincorporated area, with the same components described above, and a countywide siting element, specifying areas for transformation or disposal sites to provide capacity for solid waste generated in the jurisdiction which cannot be reduced or recycled for a 15-year period.
- Each county to prepare, adopt, and submit to the Board an Integrated Waste Management Plan (IWMP), which includes all of the elements described above. (CalRecycle, 2018a)
- Each city or county plan to include an implementation schedule which shows: diversion of 25 percent of all solid waste from landfill or transformation facilities by January 1, 1995 through source reduction, recycling, and composting activities; and, diversion of 50 percent of all solid waste by January 1, 2000 through source reduction, recycling, and composting activities. (CalRecycle, 2018a)
- The CIWMB to review the implementation of each SRRE at least once every two years. (CalRecycle, 2018a)
- The IWMA required the CIWMB, in conjunction with an inspection conducted by a Lead Enforcement Agency (LEA), to conduct at least one inspection per year of each solid waste facility in the state. (CalRecycle, 2018a)

Additionally, the IWMA established a comprehensive statewide system of permitting, inspections, enforcement, and maintenance for solid waste facilities. (CalRecycle, 2018a)



**8. Waste Reuse and Recycling Act (AB 1327)**

The Waste Reuse and Recycling Act (WRRRA) required the CIWMB to approve a model ordinance for adoption by any local government for the transfer, receipt, storage, and loading of recyclable materials in development projects by March 1, 1993. The WRRRA also required local agencies to adopt a local ordinance by September 1, 1993 or allow the model ordinance to take effect. The WRRRA requires all development projects that are commercial, industrial, institutional, or marina in nature and where solid waste is collected and loaded, to provide an adequate area for collecting and loading recyclable materials over the lifetime of the project. The area is required to be provided before building permits are issued. (CalRecycle, 2018b)

**9. Mandatory Commercial Recycling Program (AB 341)**

Assembly Bill (AB) 341 (Chapter 476, Statutes of 2011 (Chesbro, AB 341)) directed CalRecycle to develop and adopt regulations for mandatory commercial recycling. CalRecycle initiated formal rulemaking with a 45-day comment period beginning Oct. 28, 2011. The final regulation was approved by the Office of Administrative Law on May 7, 2012. AB-341 was designed to help meet California's recycling goal of 75% by the year 2020. AB 341 requires all commercial businesses and public entities that generate 4 cubic yards or more of waste per week to have a recycling program in place. In addition, multi-family apartments with five or more units are also required to form a recycling program. (CalRecycle, 2020)

**10. 2016 California Green Building Standards Code (CAL Green; Part 11 of Title 24, California Code of Regulations)**

California Code of Regulations, Title 24, Part 11 is referred to as the California Green Building Standards Code (CALGreen Code). CALGreen became effective January 1, 2017, and is applicable to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout the State of California (including residential structures and elementary schools). The purpose of the CALGreen Code is to “improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality.” The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). Section 5.408.3 of the CALGreen Code requires that 100 percent of trees, stumps, rocks, and associated vegetation and soils resulting from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on-site until the storage site is developed. Unless otherwise noted in the regulation, all newly constructed buildings in California are subject of the requirements of the CALGreen Code. (CEC, 2018)



11. *California Energy Efficiency Standards for Residential and Nonresidential Buildings (24 CA. Code Regs. 6)*

The Building Energy Efficiency Standards were first adopted in 1976 and have been updated periodically since then as directed by statute. In 1975 the Department of Housing and Community Development adopted rudimentary energy conservation standards under their State Housing Law authority that were a precursor to the first generation of the Standards. However, the Warren-Alquist Act was passed one year earlier with explicit direction to the Energy Commission (formally titled the State Energy Resources Conservation and Development Commission) to adopt and implement the Standards. The Energy Commission's statute created separate authority and specific direction regarding what the Standards are to address, what criteria are to be met in developing the Standards, and what implementation tools, aids, and technical assistance are to be provided. (CEC, 2018)

The Standards contain energy and water efficiency requirements (and indoor air quality requirements) for newly constructed buildings, additions to existing buildings, and alterations to existing buildings. Public Resources Code Sections 25402 subdivisions (a)-(b) and 25402.1 emphasize the importance of building design and construction flexibility by requiring the Energy Commission to establish performance standards, in the form of an "energy budget" in terms of the energy consumption per square foot of floor space. For this reason, the Standards include both a prescriptive option, allowing builders to comply by using methods known to be efficient, and a performance option, allowing builders complete freedom in their designs provided the building achieves the same overall efficiency as an equivalent building using the prescriptive option. Reference Appendices are adopted along with the Standards that contain data and other information that helps builders comply with the Standards. (CEC, 2018)

The 2019 update to the Building Energy Efficiency Standards focuses on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings. The most significant efficiency improvements to the residential Standards include the introduction of photovoltaic into the prescriptive package, improvements for attics, walls, water heating, and lighting. The most significant efficiency improvements to the nonresidential Standards include alignment with the ASHRAE 90.1 2017 national standards. The 2019 Standards also include changes made throughout all of its sections to improve the clarity, consistency, and readability of the regulatory language. (CEC, 2018)

Public Resources Code Section 25402.1 also requires the Energy Commission to support the performance standards with compliance tools for builders and building designers. The Alternative Calculation Method (ACM) Approval Manual adopted by regulation as an appendix of the Standards establishes requirements for input, output, and calculational uniformity in the computer programs used to demonstrate compliance with the Standards. From this, the Energy Commission develops and makes publicly available free, public domain building modeling software in order to enable compliance based on modeling of building efficiency and performance. The ACM Approval Manual also includes provisions for private firms seeking to develop compliance software for approval by the Energy Commission, which further encourages flexibility and innovation. (CEC, 2018)



***B. Local Plan, Policies, and Regulations***

***1. The Policy Plan***

The Policy Plan, part of The Ontario Plan, serves as the City's General Plan. The Policy Plan Environmental Resource Element has several principles, goals, and policies that are applicable to the Project pertaining to water, wastewater, solid waste, and recycling. On August 16, 2022, the City approved The Ontario Plan 2050 (TOP 2050), which include updates to the Policy Plan.

***2. City of Ontario Municipal Code***

The City of Ontario Municipal Code contains regulations related to utilities and service systems. The specific Municipal Code policies that are relevant to the Project are as follows:

**Title 6, Sanitation and Health, Chapter 3: Integrated Solid Waste Management**, sets forth uniform requirements and regulations for the direct and indirect users of the solid waste collection services of the City. It also allows for the City to comply with all applicable state and federal laws, including, but not limited to, The Integrated Waste Management Act of 1989, California Code Title 14, Division 7, and any subsequent amendments to each.

**Title 6, Sanitation and Health, Chapter 6: Stormwater Drainage System**. The purpose of this chapter is to ensure the health, safety and general welfare of the residents of the City of Ontario by prescribing regulations to effectively prohibit non-stormwater discharges into the City's stormwater drainage system.

**Title 6, Sanitation and Health, Chapter 8A: Water Conservation Plan**, The purpose of this chapter is to minimize the potential for a water shortage through the practice of water conservation, and to minimize the effect of a shortage of water supplies on the water customers of the City. It is furthermore the intent of this chapter to adopt provisions that will significantly reduce the inefficient consumption of water, thereby extending the available water resources necessary for domestic, sanitation, and fire protection of the community to the greatest extent possible.

**4.12.3 BASIS FOR DETERMINING SIGNIFICANCE**

According to Section I of Appendix G to the CEQA Guidelines, the proposed Project would result in a significant impact to utilities and service systems if the Project or any Project-related component would (OPR, 2019):

- a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;*
- b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years;*



- c. *Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;*
- d. *Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals;*
- e. *Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

#### 4.12.4 IMPACT ANALYSIS

***Threshold a: Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?***

##### **A. Water and Wastewater**

The Project would include the installation of water lines within the Project Site. Water would be accommodated via proposed water lines that would extend from the southeastern and southwestern corners of the building to an existing 12-inch water main at East Airport Drive. Additionally, recycled water to the Project Site would be provided via a proposed 8-inch recycled water main along East Airport Drive. The proposed 8-inch recycled water main would extend from the west of South Wineville Avenue to the eastern boundary of the Project Site and connect to the existing 24-inch recycled water main.

Sanitary sewer service to the Project Site would be provided by OMUC's sanitary sewer wastewater collection system and conveyed to the Inland Empire Utilities Agency (IEUA) for wastewater treatment. Sewer would be accommodated via proposed 6-inch sewer line that would extend from the southwestern corners of the building to a proposed 8-inch OMUC sewer main on East Airport Drive. There is an existing 8-inch OMUC sewer main on East Airport Drive that ends approximately at the western boundary of the Project Site where the proposed 8-inch sewer main would connect to.

Although the Project would result in new water and wastewater line connections, these connections would be part of the Project's construction phase, which is evaluated throughout this EIR. The construction of the Project's water and wastewater lines necessary to serve the Project would not result in any significant physical effects on the environment that are not already identified and disclosed as part of this EIR. Impacts would be less than significant.

##### **B. Stormwater Drainage**

Stormwater will sheet flow from north to south and will be captured by proposed on-site catch basins. The proposed on-site storm drain system will convey the flow into a proposed underground infiltration chamber. In a large storm event, stormwater will exit the underground chamber system via pipes and





will be pumped out through a proposed parkway drain on Airport Drive. Runoff will sheet flow east along Airport Drive and discharge into the existing catch basin, located approximately 1,500 feet east of the Project Site, to maintain the same point of discharge as the existing condition.

Refer to the analysis under Section 4.8, *Hydrology and Water Quality*, Threshold c.ii. As discussed, stormwater runoff would be treated on-site and would not require relocation or construction of new or expanded storm water drainage infrastructure which could cause significant environmental effects. Therefore, impacts would be less than significant.

**C. *Dry Utilities***

Electricity will be provided by SCE. All new dry utility infrastructure would be installed underground and within the Project Site. Connections to the existing utility networks are available in the Project area and any offsite improvements would occur within improved rights-of-way, which are inherent to the Project's construction phase and have been evaluated throughout this EIR. Because the Project Site has been previously developed with industrial uses that requires electric power and telecommunication services, implementation of the Project is not anticipated to limit the ability of service providers to provide service to Project. Therefore, the Project would not require or result in the construction or expansion of new facilities, and impacts would be less than significant.

***Threshold b: Would the Project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?***

OMUC is responsible for supplying potable water to the Project Site. The OMUC's 2020 UWMP includes an analysis of water supply reliability projected through 2045 under normal years, single dry year, and multiple dry years. OMUC's total water demand for 2020 was approximately 32,109 AF (OMUC, 2021). OMUC's forecasts for projected water demand based on the population projections of the Southern California Associations of Governments (SCAG), which rely on the adopted land use designations contained within the general plans that cover the geographic area within OMUC's service. Because the Project Applicant would redevelop the Site with a use permitted under the Heavy Industrial land use designation, the Project would be consistent with the City's Policy Plan and, therefore, the water demand associated with the Project was considered in the demand anticipated by the 2020 UWMP and analyzed therein. As stated above, the City is anticipated to have adequate water supplies to meet all its demands until the year 2045 under a normal year, single dry year, and multiple dry years. Therefore, the City has sufficient water supplies available to serve the Project from existing entitlements/resources and no new or expanded entitlements are needed. Impacts would be less than significant.



***Threshold c: Would the Project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?***

IEUA is responsible for supplying wastewater treatment services to the Project Site. There are four recycling plants (RPs) within the IEUA's service area. Regional Water Recycling Plant No. 1 (RP-1) is located in the City of Ontario and has been in operation since 1948. According to IEUA's 2020 UWMP, the current wastewater treatment capacity of RP-1 is 44 MGD, although it currently treats approximately 21 MGD. (IEUA, 2021)

The Project Site is currently developed and served by septic tank systems. The Project Applicant would demolish the existing structures and redevelop the Site with an approximately 270,337 s.f. building. The Project is calculated to generate 28,776 gallons per day (gpd) of wastewater (2,200 gpd/acre × 13.08 acres = 28,776 gpd). The wastewater generated by the Project would only represent approximately 0.13 percent of the excess treatment capacity of RP-1 ( $[28,776 \text{ gpd} \div 23 \text{ million gpd}] \times 100 = 0.13 \%$ ); therefore, it is anticipated that RP-1 have sufficient treatment capacity to provide service to the Project. The associated increase in wastewater generation would have a negligible effect on the wastewater treatment provider. As such, the IEUA's existing wastewater treatment facilities are anticipated to have adequate capacity to serve the Project's project demand in addition to its existing commitments. Impacts would be less than significant.

***Threshold d: Would the Project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?***

Solid waste generated during the operation of the Project is anticipated to be collected by the City of Ontario and is anticipated to be hauled to either Badlands Sanitary Landfill or El Sobrante Landfill. As previously discussed, the Badlands Sanitary Landfill has a permitted disposal capacity of 4,800 tons per day with a remaining capacity of 15,748,799 cubic yards. The Badlands Sanitary Landfill is estimated to reach capacity, at the earliest time, in the year 2022 (CalRecycle, 2022a). The El Sobrante Landfill is permitted to received 16,054 tons of solid waste per day with a remaining capacity of 143,977,170 ton. The El Sobrante Landfill is estimated to reach capacity, at the earliest time, in the year 2051. (CalRecycle, 2022b; CalRecycle, 2022c)

Based on the generation rate of 1.42 pounds per 100 s.f. per day, the proposed 270,337 s.f. building would result in approximately 3,838 pounds per day (1.91 tons per day). As previously stated, the Badlands Sanitary Landfill has a permitted disposal capacity of 4,800 tons per day and the El Sobrante Landfill has a permitted disposal capacity of 16,054 tons per day. The Project generated solid waste represents a nominal portion of the landfill's capacity and would not contribute significantly to the daily landfill capacity, and the landfill facilities are sufficient. Accordingly, impacts would be less than significant



***Threshold e: Would the Project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?***

The following federal and state laws and regulations govern solid waste disposal:

- AB 939 (Chapter 1095, Statutes of 1989), the California Integrated Waste Management Act of 1989 required each city, county, and regional agency to develop a source reduction and recycling element of an integrated waste management plan that contained specified components, including a source reduction component, a recycling component, and a composting component. With certain exceptions, the source reduction and recycling components were required to divert 50 percent of all solid waste from landfill disposal or transformation by January 1, 2000, through source reduction, recycling, and composting activities.
- AB 32 (Chapter 488, Statutes of 2006), the California Global Warming Solutions Act, established mandatory recycling as one of the measures to reduce GHG emissions adopted in the Scoping Plan by the California Air Resources Board.
- AB 341 (Chapter 476, Statutes of 2011) requires that all “commercial” generators of solid waste (businesses, institutions, and multifamily dwellings) establish recycling and/or composting programs. AB 341 goes beyond AB 939 and establishes the new recycling goal of 75 percent by 2020.

The Project would implement the requirements of the City’s Integrated Waste Department's Refuse & Recycling Planning Manual on refuse and recycling storage and access for service, as well as addressing the City's recycling goals. The requirements of Chapter 3, Integrated Waste Management, of the Municipal Code will also be implemented to ensure that the Project complies with all applicable state and federal laws. Therefore, no impacts would occur.

#### **4.12.5 CUMULATIVE IMPACT ANALYSIS**

This cumulative impact analysis considers development of the Project Site in conjunction with other development projects and planned development within the service area for the respective utility provides or the service area for specific facilities (e.g., wastewater treatment facilities).

As with the Project, each individual related development project would require the construction of necessary infrastructure (water and wastewater lines, storm drain facilities, dry utilities, and others) to serve the project. Each individual development project is subject to review for utility capacity to avoid unanticipated interruption of service or inadequate supplies. Coordination with the utility providers would allow for the provision of utility services to the Project and other developments. The Project and other planned projects are subject to connection and service fees to offset increased demand and assist in facility expansion and service (at the time of need). Therefore, the Project impacts would not



contribute to a significant cumulative impact associated with construction of utility infrastructure or provision of utility services.

OMUC has sufficient potable water supplies to meet existing and future demands through the year 2040 under normal, single-dry, and multiple dry years. As such, the Project would not contribute to a cumulatively considerable impact on water supply.

According to IEUA's 2020 UWMP, the current wastewater treatment capacity of RP-1 is 44 MGD, although it currently treats approximately 21 MGD. As such, there is adequate existing and proposed capacity to provide wastewater treatment for the Project and cumulative development. Therefore, the Project would not result in a significant cumulative impact on wastewater treatment facilities.

The City, including the Project Site and cumulative development, are within the service area of the Badlands Sanitary Landfill or El Sobrante Landfill and a majority of the City's solid waste is disposed of at the Badlands Sanitary Landfill or El Sobrante Landfill. The remaining portions of the City's solid waste are disposed of at landfills with adequate capacity throughout the County and surrounding counties within the State. The solid waste generated by construction and operation of the Project would represent nominal portions of daily disposal capacities at existing landfill facilities. The existing landfill facilities have sufficient daily capacity to handle solid waste during the Project's construction and operation and would not directly result in the need for expanded solid waste disposal facilities. Further, the Project would adhere to applicable local and State regulations during both construction and long-term operation to reduce solid waste generation. Other cumulative development would be required to comply with such regulations. Therefore, the Project would not have a significant cumulative impact related to solid waste disposal and compliance with regulations addressing the reduction of solid waste generation and disposal.

#### **4.12.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION**

Threshold a: Less-than-Significant Impact. The physical environmental effects associated with installing the Project's proposed connections to existing utility infrastructure, as well as installation of on-site and off-site storm water management, water, and wastewater infrastructure have been evaluated throughout this EIR and no adverse impacts specific to the provision utilities services have been identified. Mitigation measures are identified, where necessary, for construction-related effects that would reduce construction-phase impacts to the maximum feasible extent. Impacts would be less than significant.

Threshold b: Less-than-Significant Impact. Based on the information provided in the OMUC's UWMP, OMUC has sufficient water supplies available to serve the Project in normal, dry, and multiple dry years and impacts would be less than significant.

Threshold c: Less-than-Significant Impact. The Project's proposed wastewater generation would not exceed the capacity of the RP-1. The Project's wastewater generation would represent a nominal increase in wastewater treatment demand and impacts would be less than significant.



Threshold d: Less-than-Significant Impact. The Project's proposed solid waste disposal needs would be adequately accommodated by existing landfills serving the City. Therefore, the Project would have less than significant impacts related to solid waste.

Threshold e: No Impact. The Project would comply with all applicable federal, State, and local statutes and regulations pertaining to management and reduction of solid waste. No impacts associated with regulatory compliance would occur.

#### **4.12.7 MITIGATION**

Project impacts would be less than significant and mitigation is not required.



## 5.0 OTHER CEQA CONSIDERATIONS

### 5.1 SIGNIFICANT EFFECTS WHICH CANNOT BE AVOIDED IF THE PROPOSED PROJECT IS IMPLEMENTED

The CEQA Guidelines require that an EIR disclose the significant environmental effects of a project which cannot be avoided if the proposed project is implemented (CEQA Guidelines Section 15126(b)). As described in detail in Section 4.0, *Environmental Analysis*, of this EIR, the proposed Project is anticipated to result in impacts to the environment that cannot be reduced to below a level of significance after the consideration of Project design features, compliance with applicable federal, State and local regulations, and the application of the feasible mitigation measures identified in this EIR. The significant impacts that cannot be mitigated to a level below thresholds of significance consist of the following:

- Transportation (Vehicle Miles Traveled): After the application of feasible mitigation measures, effectiveness of the TDM strategies that have potential to reduce the Project VMT are dependent on as yet unknown Project building tenant(s); therefore, Project impacts related to VMT would be significant and unavoidable on a direct and cumulatively-considerable basis.

### 5.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH WOULD BE CAUSED BY THE PROJECT SHOULD IT BE IMPLEMENTED

The CEQA Guidelines require EIRs to address any significant irreversible environmental changes that would be involved in the proposed action should it be implemented (CEQA Guidelines Section 15126.2(c)). An environmental change would fall into this category if: a) the project would involve a large commitment of nonrenewable resources; b) the primary and secondary impacts of the project would generally commit future generations to similar uses; c) the project involves uses in which irreversible damage could result from any potential environmental accidents; or d) the proposed consumption of resources are not justified (e.g., the project results in the wasteful use of energy).

Determining whether the Project may result in significant irreversible environmental changes requires a determination of whether key non-renewable resources would be degraded or destroyed in such a way that there would be little possibility of restoring them. Natural resources, in the form of construction materials and energy resources, would be used in the construction of the proposed Project. The consumption of these natural resources would represent an irreversible change to the environment; however, development of the Project Site would have no measurable adverse effect on the availability of such resources, including resources that may be non-renewable (e.g., construction aggregates, fossil fuels). Additionally, the Project is required by law to comply with the California Green Building Standards Code (CALGreen), which will minimize the Project's demand for energy, including energy produced from non-renewable sources. A more detailed discussion of Project energy consumption is provided in EIR Subsection 4.4, *Energy*.



Implementation of the Project would commit the Project Site to one light industrial building. The potential warehouse land uses for the Project are compatible with the existing industrial land uses that are located east, west, and south of the Project Site and also compatible with the use of East Airport Drive (which abuts the Project Site on the south) as a City-designated truck route. Accordingly, the Project and its environmental effects would not compel or commit surrounding properties to land uses other than those that are existing today or those that are planned by the City of Ontario General Plan. For this reason, the Project would not result in a significant, irreversible change to nearby, offsite properties.

EIR Subsection 4.7, *Hazards and Hazardous Materials*, provides an analysis of the potential for hazardous materials to be transported to/from the Project Site and/or used on the Project Site during construction and operation. As concluded in Subsection 4.7, mandatory compliance with federal, State, and local regulations related to hazardous materials handling, storage, and use by all Project construction contractors (near term) and occupants (long-term) would ensure that any hazardous materials used on-site would be safely and appropriately handled to preclude any irreversible damage to the environment that could result if hazardous materials were released from the Site.

As discussed in detail under EIR Subsection 4.5, *Energy*, use of the Project for warehouse would not result in a wasteful, inefficient, or unnecessary consumption of energy. Accordingly, the Project would not result in a significant, irreversible change to the environment related to energy use.

Based on the above, Project construction and operation would require the commitment of limited, slowly renewable and non-renewable resources. This commitment of resources would not be substantial and would be consistent with regional and local growth forecasts and development goals for the area. The loss of such resources would not be highly accelerated when compared to existing conditions, and such resources would not be used in an inefficient or wasteful manner. Project construction and operation would adhere to the sustainability requirements of Title 24, Green Building Code, and CALGreen. Therefore, the Project would not result in the commitment of large quantities of natural resources that would result in significant irreversible environmental changes.

### **5.3 GROWTH INDUCING IMPACTS**

CEQA requires a discussion of the ways in which the proposed Project could be growth inducing. The CEQA Guidelines identify a project as growth inducing if it would foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment (CEQA Guidelines Section 15126.2(d)). New employees and new residential populations represent direct forms of growth. These direct forms of growth have a secondary effect of expanding the size of local markets and inducing additional economic activity in the area.

A project could indirectly induce growth at the local level by increasing the demand for additional goods and services associated with an increase in population or employment and thus reducing or removing the barriers to growth. This typically occurs in suburban or rural environs where population



growth results in increased demand for service and commodity markets responding to the new population of residents or employees.

According to regional population projections included in SCAG’s Connect SoCal, the City of Ontario’s population is projected to grow by 96,900 residents between 2016 and 2045 (approximately 1.94% annual growth). Over this same time period, employment in the City is expected to add 55,400 new jobs (approximately 1.6% annual job growth) (SCAG, 2020b) Additionally, The Ontario Plan 2050 (TOP 2050) projected a total of 129,562 dwelling units, 261,91,779 sq ft of non-residential uses, 410,492 residents and 296,002 jobs in 2050. (Ontario, 2022b) Economic growth would likely take place as a result of the Project’s operation. The Project’s employees (short-term construction and long-term operational) would purchase goods and services in the region, but any secondary increase in employment associated with meeting these goods and services demands is expected to be accommodated by existing goods and service providers and, based on the amount of existing and planned future commercial and retail services available in areas near the Project Site, would be highly unlikely to result in any unanticipated, adverse physical impacts to the environment. In addition, the Project would generate approximately 75 employees per shift, a majority of which would likely be filled by residents of the housing units either already built or planned for development within the City of Ontario and nearby incorporated and unincorporated areas. Accordingly, because it is anticipated that most of the Project’s future employees would already be living in the City of Ontario or the larger Inland Empire area, the Project’s introduction of employment opportunities on the Project Site would not induce substantial growth in the area.

Under CEQA, growth inducement is not considered necessarily detrimental, beneficial, or of little significance to the environment. Typically, growth-inducing potential of a project would be considered significant if it fosters growth or a concentration of population in excess of what is assumed in applicable master plans, land use plans, or in projections made by regional planning agencies such as SCAG. Significant growth impacts also could occur if a project provides infrastructure or service capacity to accommodate growth beyond the levels currently permitted by local or regional plans and policies. In general, growth induced by a project is considered a significant impact if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth significantly affects the environment in some other way.

The Project is consistent with the industrial land use designations applied to the Project Site by the Policy Plan. The area surrounding the Project Site consists of industrial warehouses to the south, east, and west and Southern Pacific railroad to the north with industrial uses beyond. Development of the Project Site is not expected to place short-term development pressure on abutting properties because these areas are already built-out. Based on the foregoing analysis, the Project would not result in substantial, adverse growth-inducing impacts.

#### **5.4 EFFECTS FOUND NOT TO BE SIGNIFICANT DURING THE EIR SCOPING PROCESS**

CEQA Guidelines Section 15128 requires that an EIR “...contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and





were therefore not discussed in detail in the EIR.” The Project’s Notice of Preparation for this EIR, both of which are included in *Technical Appendix A* to this EIR, determined that implementation of the Project would clearly have no potential to result in significant impacts under eight (8) environmental issue areas: agriculture and forestry resources, biological resources, land use and planning, mineral resources, population and housing, public services, recreation, and wildfire. Therefore, these issue areas were not required to be analyzed in detail in EIR Section 4.0, *Environmental Analysis*. A brief analysis of the Project’s impacts to agriculture and forestry resources, biological resources, land use and planning, mineral resources, population and housing, public services, recreation, and wildfire is presented below.

#### 5.4.1 AGRICULTURE AND FORESTRY RESOURCES

***Threshold a:*** *Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

The Project Site is presently industrial and does not contain any agricultural uses. Further, the Site is identified as Urban and Built-up Land on the map prepared by the California Resources Agency, pursuant to the Farmland Mapping and Monitoring Program (DOC, 2018). The Project does not have the potential to convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use. As a result, no adverse environmental impacts are anticipated.

***Threshold b:*** *Would the Project conflict with existing zoning for agricultural use, or a Williamson Act contract?*

The Project Site is not zoned for agricultural use. The Project Site is zoned Heavy Industrial. The Project’s implementation would not require a zone change and would not result in a loss of land zoned for agriculture. The Project is consistent with the development standards and allowed land uses of the proposed zone. Furthermore, there is no Williamson Act contract in effect on the subject Site. Therefore, no impacts to agricultural uses are anticipated, nor will there be any conflict with existing or Williamson Act contracts.

***Threshold c:*** *Would the Project conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production?*

The Project is zoned Heavy Industrial and does not contain forest land. The Project is consistent with the development standards and allowed land uses of the Heavy Industrial zone. The City’s Zoning Map does not designate any parcels of land in the Project area for forest land, timberland, or timberland zoned Timberland Production. Therefore, no adverse impacts are anticipated.



***Threshold d:*** *Would the Project conflict result in the loss of forest land or conversion of forest land to non-forest use?*

There is currently no land in the City of Ontario that qualifies as forest land as defined in Public Resources Code Section 12220(g). Neither the Policy Plan nor the City's Zoning Code provide designations for forest land. Consequently, the Project would not result in the loss or conversion of forest land.

***Threshold e:*** *Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?*

The Project Site is currently zoned Heavy Industrial and is not designated as Farmland. The Project Site is currently developed with industrial uses and there are no agricultural uses occurring onsite. As a result, to the extent that the Project would result in changes to the existing environment those changes would not result in the loss of Farmland to non-agricultural use.

Additionally, there is currently no land in the City of Ontario that qualifies as forest land as defined in Public Resources Code Section 12220(g). Neither the Policy Plan nor the City's Development Code provide designations for forest land. Consequently, to the extent that the Project would result in changes to the existing environment, those changes would not impact forest land.

#### 5.4.2 BIOLOGICAL RESOURCES

***Threshold a:*** *Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

The Project Site is currently developed with a grain processing company and a corn storage and distribution facility. The Project Site is in an urbanized and industrialized area in the City of Ontario and vegetation onsite is limited to ornamental species. The Project Site is located within an area that has not been identified as containing species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations or by the California Department of Fish and Wildlife (CDFW) or the United States Fish and Wildlife Service (USFWS). As a part of the Project, existing vegetation within the developed portion of the Project Site would be removed and replaced with a variety of trees and ornamental vegetation. The relocation and/or replacement of on-site vegetation and trees would not have a substantial adverse effect on candidate, sensitive or special-status species, as defined by the CDFW or the USFWS. Therefore, no adverse impacts are anticipated.



***Threshold b:*** *Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

The Project Site is currently developed with industrial uses and is in a highly urbanized and industrialized area in the City. The Project Site does not contain any riparian habitat or other sensitive natural community identified by the CDFW or the USFWS (USFWS, 2020). Therefore, no adverse environmental impacts are anticipated.

***Threshold c:*** *Would the Project have a substantial adverse effect on federally protected wetlands [as defined by Section 404 of the Clean Water Act] (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

There are no wetlands habitat present on site (USFWS, 2020). Therefore, Project implementation would have no impact on these resources.

***Threshold d:*** *Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

No surface water bodies, streams or waterways occur on the Project Site. The Project Site does not provide nursery sites for wildlife, nor is it conducive to function as a corridor for migratory wildlife. There are a limited number of ornamental trees on site that would be removed and replaced with new trees and landscaping. The Migratory Bird Treaty Act of 1918 (MBTA) implements the United States' commitment to four treaties with Canada, Japan, Mexico, and Russia for the protection of shared migratory bird resources. Nesting migratory birds are protected under the MBTA (United States Code, Title 16, Sections 703–712) and California Fish and Game Code Sections 3503 et seq. Compliance with federal MBTA and California Fish and Game Code would eliminate any potential impacts. The Project would not interfere with the movement of any native resident or migratory species or impede the use of native wildlife nursery sites. Therefore, no adverse environmental impacts are anticipated.

***Threshold e:*** *Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

The City of Ontario does not have any ordinances protecting biological resources. Further, the Site does not contain any mature trees necessitating the need for preservation. As a result, no adverse environmental impacts are anticipated.



***Threshold f:*** *Would the Project conflict with the provisions of an adopted Habitat Conservation Plan [(HCP)], Natural Community Conservation Plan [(NCCP)], or other approved local, regional, or state habitat conservation plan?*

The Project Site is not part of an adopted HCP, NCCP or other approved habitat conservation plan (CDFW, 2019). As a result, no adverse environmental impacts are anticipated.

#### 5.4.3 LAND USE AND PLANNING

***Threshold a:*** *Would the Project physically divide an established community?*

The Project Site is located in an area that is currently developed with urban land uses. Existing industrial development borders the Site to the south, west, and east; the BNSF railroad track borders the Site to the north. The Project Applicant would redevelop the Site with another industrial use with associated parking and landscaping improvements. The Project will be of similar design and size to surrounding development. The Project would not have the potential to physically divide an established community. No adverse impacts are anticipated.

***Threshold b:*** *Would the Project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*

The Project Site is designated for Industrial by the City's Policy Plan and the Heavy Industrial zoning district. The Project Applicant would redevelop the Project Site in accordance with the underlying land use designation and applicable zoning ordinance development standards. No change to the existing land use designation or zoning is required or proposed by the Project. The Project is consistent with the Policy Plan and does not interfere with any policies for environmental protection. As such, no impacts are anticipated.

#### 5.4.4 MINERAL RESOURCES

***Threshold a:*** *Would the Project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*

The Project Site is located within a mostly developed area surrounded by urban land uses. As shown in Figure 5.12-1 of The Ontario Plan 2050 Final Supplemental EIR, the Project Site is designated as Mineral Resource Zone MRZ-3 (Ontario, 2022b). Areas designated by the State of California Geologist as MRZ-3 include land that the significance of mineral deposits cannot be determined from the available data. According to the Policy Plan, there are no permitted mining operations in the City. Significant mineral resources within Ontario are limited to construction aggregate. These areas have been developed with urban uses and are not suitable for mineral resource extraction (Ontario, 2022a). There are no known mineral resources in the area. Therefore, no impacts are anticipated.



***Threshold b: Would the Project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?***

As discussed in Response 5.4.4(a) above, there are no known mineral resources in the area. The Project would not result in the loss of availability of locally-important mineral resources. No impacts are anticipated.

#### 5.4.5 POPULATION AND HOUSING

***Threshold a: Would the Project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?***

The Project would result in the development of approximately 270,337 s.f. warehouse facility, replacing an existing grain processing and corn storage and distribution facility. According to Southern California Association of Governments' (SCAG) Employment Density Study, the Project would generate approximately 226 employees (Urban Crossroads, 2022f). According to the California Employment Development Department (EDD), as of June 2022, the City of Ontario has a labor force of 92,300 persons and of that labor force, 3,200 are unemployed (unemployment rate of 3.5 percent) (EDD, 2022). According to SCAG's 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy, the City of Ontario is anticipated to employ approximately 169,300 persons by 2045 (SCAG, 2020b). As discussed above, TOP 2050 projected a total of 296,002 jobs in 2050. Therefore, the Project is consistent with the SCAG's 2045 and the TOP 2050 employment projections for the City. Project-generated jobs are well within the employment projections for the City of Ontario. Operation of the Project would not induce substantial unplanned population growth in the Project area, either directly or indirectly and would not exceed regional or local growth projections. Therefore, no impacts are anticipated.

***Threshold b: Would the Project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?***

The Project Site does not contain any housing and there are no people living at the Project Site that would be displaced by the Project. Therefore, no impacts are anticipated.



#### 5.4.6 PUBLIC SERVICES

***Threshold a:*** *Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*

*i. Fire Protection?*

*ii. Police Protection?*

*iii. Schools?*

*iv. Parks?*

*v. Other public facilities?*

#### ***A. Fire Protection***

Fire protection services are provided by the Ontario Fire Department (OFD). OFD serves these residents from 10 strategically located fire stations, including the Ontario International Airport fire station, with a daily staffing level of 59 sworn firefighters. These fire stations house nine 4-person paramedic engine companies, three 4-person truck companies, an 8-person Aircraft Rescue and Fire Fighting (ARFF) station, 1 fire investigation supervisor, and 2 battalion chiefs (Ontario, 2022c). The closest fire station to the Project Site is Station 7, located at 4901 Vanderbilt Street, approximately 1.3 miles to the southwest of the Project Site.

The proposed building would be in accordance with the applicable provisions of the adopted California Fire Code (CFC) and the City's Municipal Code Section 4-4.01, ordinances, and standard conditions regarding fire prevention and suppression measures related to water improvement plans, fire hydrants, fire access, and water availability. The Project Site is in a developed area currently served by OFD. The Project will not require the construction of any new fire protection facilities or alteration of any existing fire protection facilities or cause a decline in the levels of service, which could cause the need to construct new fire protection facilities. Development impact fees (DIF) would also be collected in order to build and supply necessary infrastructure for fire protection services, as necessary. No impacts are anticipated.

#### ***B. Police Protection***

Police protection services are provided by the Ontario Police Department (OPD). OPD's headquarters is located at 2500 S. Archibald Avenue, approximately 4.16 miles to the southwest of the Project Site. The Project Site is in a developed area, currently served by OPD. The Project will not require the construction of any new police protection facilities or alteration of any existing police protection facilities or cause a decline in the levels of service, which could cause the need to construct new police protection facilities. DIF would also be collected in order to build and supply necessary infrastructure for police protection services, as necessary. No impacts are anticipated.



**C. Schools**

The Project is located within the attendance boundaries of the Cucamonga Elementary School District and Chaffey Joint Union High School District. The Project Applicant proposes to demolish the existing grain processing and corn storage and distribution facility and redevelop the Site with a single industrial building. Implementation of the Project does not have the potential to result in substantial direct growth in the population, nor an increase in student population. The Project would be required to pay school fees as prescribed by state law prior to the issuance of building permits. No impacts are anticipated.

**D. Parks**

The City of Ontario Recreation & Community Services Department operates and manages parks and park programs for the City. The Project would not introduce new residents to the City necessitating the need for additional parks. The Project will not require the construction of any new parks or alteration of any existing parks or cause a decline in the levels of service, which could cause the need to construct new park facilities. No impacts are anticipated.

**E. Other Public Facilities**

The Project would not introduce new residents to the City necessitating the need for additional public facilities. The Project will not require the construction of any new public facilities or alteration of any existing public facilities or cause a decline in the levels of service, which could cause the need to construct new public facilities. No impacts are anticipated.

**5.4.7 RECREATION**

***Threshold a: Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?***

The Project is not proposing any significant new housing or large employment generator that would cause an increase in the use of neighborhood parks or other recreational facilities. No impacts are anticipated.

***Threshold b: Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?***

The Project does not include recreational facilities or require the construction or expansion of recreational facilities. Implementation of the Project would not result in any adverse physical effects on the environment due to the construction of recreational facilities. No impacts are anticipated.



#### 5.4.8 WILDFIRE

***Threshold a: Would the Project substantially impair an adopted emergency response plan or emergency evacuation plan?***

The State Responsibility Area (SRA) is the land where the State of California is financially responsible for the preservation and suppression of wildfires. The SRA does not include lands within City boundaries or in federal ownership; therefore, the Project Site does not have the potential to be in an SRA. According to the California Department of Forestry and Fire Protection's fire hazard map for the Local Responsibility Area (LRA), the Project Site is not within a Very High Fire Hazard Severity Zone (CAL FIRE, 2008).

The City updated the Local Hazard Mitigation Plan prepared by the Office of Emergency Management in 2018. The purpose of the Hazard Mitigation Plan (HMP) is to demonstrate the plan for reducing and/or eliminating risk in the City. The HMP process encourages communities to develop goals and projects that will reduce risk and build a more disaster resilient community by analyzing potential hazards.

Construction of the Project would be generally confined to the Project Site and would not physically impair access to the Site or Project area. During both construction and long-term operation, the Project would be required to maintain adequate emergency access for emergency vehicles as required by the City and OFD. Because the Project is required to comply with all applicable City codes and is not located within a Very High Fire Hazard Severity Zone (VHFHSZ), any emergency evacuation or emergency response plan impacts would be reduced to a less than significant level. Therefore, impacts are less than significant.

***Threshold b: Due to slope, prevailing winds, and other factors, would the Project exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?***

As demonstrated above, the Project Site is not in or near an SRA or LRA or lands classified as VHFHSZ. Implementation of the Project would not add wildland vegetation to the Project Site or change site topography (such as adding large slopes) so as to exacerbate wildfire spread. Adjacent areas to the Project Site are also urbanized; therefore, there are no wildlands adjacent to the Site that may expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to slope and prevailing winds. Therefore, no impacts are anticipated.





***Threshold c: Would the Project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?***

The Project would not require the installation of infrastructure that would exacerbate fire risk. The Project would connect to the existing Ontario Municipal Utilities Company (OMUC) 12-inch water main on East Airport Drive. Sanitary sewer service to the Project Site would be provided by Inland Empire Utilities Agency (IEUA). Sewer would be accommodated via proposed 6-inch sewer line that would extend from the southwestern corners of the building to a proposed 8-inch sewer main on East Airport Drive. The proposed 8-inch sewer main would connect to an existing 8-inch sewer main on East Airport Drive that ends approximately at the western boundary of the Project Site.

Although the Project would require the installation of utility infrastructure connection, the construction of these improvements is inherent to the Project's construction phase and impacts associated with the Project construction phase are evaluated throughout this EIR. In addition to the Project's utility infrastructure, the Project would result in the installation of on-site fire hydrants, that are designed in accordance with the OFD standards. The internal waterlines are anticipated to supply sufficient fire flows and pressure to meet the demands required for on-site fire hydrants. Therefore, the proposed connections to existing infrastructure would not be anticipated to exacerbate fire risk on or off-site or result in temporary or ongoing impacts to the environment. Impacts would be less than significant.

***Threshold d: Would the Project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?***

As discussed above, the Project Site is not located within a landslide zone (DOC, 2021) or in a FEMA flood zone (FEMA, 2016). Regardless of the landslide susceptibility, the Project would be required by the California Building Code (CBC) and City's Building Code to comply with the recommendations identified in the Project's Preliminary Geotechnical Investigation, which would ensure that the Project is engineered and constructed to maximize stability and preclude safety hazards to on-site areas. The implementation of the Project would not increase the risk of landslides after a wildfire compared to existing conditions. Impacts would be less than significant.

Moreover, the Project would result in minor changes to the existing drainage patterns of the Project Site. However, such changes would not increase the rate or amount of surface runoff in a manner which would result in flooding or result in substantial erosion or siltation on- or off-site. The Project would replace the existing developed Site with a single industrial building and would not add wildland vegetation that would not readily transmit wildfire. Therefore, the Project would reduce the risk of wildfire spread. In the event that wildfire occurs in the Project vicinity, the Project would not result in an increased risk of downslope or downstream flooding because it is within an area of minimal flooding and Project runoff would be adequately conveyed by the existing storm drain infrastructure. Therefore, the implementation of the Project would not increase the risk of downslope or downstream flooding. Impacts would be less than significant.



## 6.0 ALTERNATIVES

An Environmental Impact Report (EIR) must identify ways to mitigate or avoid the significant effects that a Project may have on the environment. In compliance with CEQA Guidelines §15126.6(a), an EIR must “describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any significant effects of the project, and evaluate the comparative merits of the alternatives”. Although the Project evaluated in this EIR would not result in any significant and unavoidable impacts on the environment, this Section identifies potential alternatives to the Project and evaluates them, as required by CEQA.

Key provisions of the State CEQA Guidelines on alternatives (Sections 15126.6(b)–15126.6(f)) are provided below to explain the foundation and requirements for the alternatives analysis in the EIR.

- The discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objective, or would be more costly (Section 15126.6(b)).
- The specific alternative of ‘no project’ shall also be evaluated along with its impact (Section 15126.6(e)(1)).
- The “no project” analysis shall discuss the existing conditions at the time the Notice of Preparation is published, and at the time the environmental analysis is commenced, as well as what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (Section 15126.6(e)(2)).
- The range of alternatives required in an EIR is governed by the “rule of reason” that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making. Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent) (Section 15126.6(f)).



- For alternative locations, “only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR” (Section 15126.6(f)(2)(A)).
- If the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion, and should include the reasons in the EIR. For example, in some cases there may be no feasible alternative locations for a geothermal plant or mining project, which must be in close proximity to natural resources at a given location (Section 15126.6(f)(2)(B)).
- An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative (Section 15126.6(f)(3)).

## **6.1 SUMMARY OF SIGNIFICANT AND UNAVOIDABLE IMPACTS**

As demonstrated in Section 4.0 of this EIR, implementation of the Project would result in significant adverse environmental effects under one environmental issue area that cannot be mitigated to below a level of significance after the implementation of mandatory regulatory requirements and feasible mitigation measures. The unavoidable significant impact is as follows:

- Transportation (Vehicle Miles Traveled): After the application of feasible mitigation measures, effectiveness of some of the Transportation Demand Management Program (TDMP) strategies that have potential to reduce the Project Vehicle Miles Traveled (VMT) are dependent on as yet unknown Project building tenant(s). Therefore, Project impacts related to VMT would be significant and unavoidable on a direct and cumulatively-considerable basis.

## **6.2 PROJECT OBJECTIVES**

The fundamental purpose and goal of the 5355 East Airport Drive Project is to accomplish the orderly redevelopment of the Project Site with a modern warehouse distribution facility. The Project would achieve this goal through the following objectives.

- A. To expand economic development and facilitate job creation in the City of Ontario by re-developing the property with a new, in-demand industrial use adjacent to an already-established industrial area.
- B. To attract employment-generating businesses to the City of Ontario to reduce the need for members of the local workforce to commute outside the area for employment.
- C. To develop industrial buildings with loading bays in close proximity to designated truck routes and the State highway system to avoid or shorten heavy truck-trip lengths on City and regional roads.



- D. To attract businesses that can expedite the delivery of goods to consumers and businesses in the City of Ontario and beyond.
- E. To develop a project that has architectural design and operational characteristics that complement other existing and planned buildings in the immediate vicinity of the Project Site and minimize conflicts with other nearby land uses.
- F. To develop a property that has access to available infrastructure, including roads and utilities.

### **6.3 ALTERNATIVES UNDER CONSIDERATION**

CEQA Guidelines §15126.6(e) requires that an alternative be included that describes what would reasonably be expected to occur on the property in the foreseeable future if the proposed Project were not approved, based on current plans and consistent with available infrastructure and community services (i.e., “no project” alternative). For development projects that include a revision to an existing land use plan, the “no project” alternative is considered to be the continuation of the existing land use plan into the future. For projects other than a land use plan (for example, a development project on an identifiable property such as the proposed Project evaluated herein), the “no project” alternative is considered to be a circumstance under which the proposed Project does not proceed (CEQA Guidelines §15126.6(e)(3)(A-B). For the alternatives’ analysis in this Draft EIR, the “No Project/No Development Alternative” was considered.

#### **6.3.1 NO PROJECT/NO DEVELOPMENT ALTERNATIVE**

The No Project/No Development Alternative considers no development on the Project site beyond what occurs on the site under existing conditions (as described in EIR Section 3.0). As such, the Alternative is considered to be the scenario where the existing grain processing company and corn storage and distribution facility are retained and the facility continues to process grain and corn into the future. Under this alternative, no improvements would be made to the Project site and none of the Project’s internal parking, utility, and other infrastructure improvements would occur. This alternative was selected by the City to compare the environmental effects of the proposed Project with an alternative that would leave the Project site undeveloped in its general existing conditions.

#### **6.3.2 REDUCED BUILDING AREA ALTERNATIVE**

The Reduced Building Area Alternative considers a proposal where the Project site would be redeveloped with two uses: a light industrial building and a trailer parking lot. Under this Alternative, a 135,169 s.f. light industrial building (including related site improvements such as truck loading/unloading areas and parking, passenger vehicle parking, landscaping, signage, and public utility connections) would be developed on the eastern portion of the Project site and a trailer parking lot would be developed on the western portion of the Project site. This alternative was selected to evaluate a scenario that would reduce the total building area on the Project site relative to the Project but still allow productive industrial use of the entire Project site.



### 6.3.3 REDUCED INTENSITY ALTERNATIVE

The Reduced Intensity Alternative considers a proposal where a portion of the Project site would be redeveloped with an industrial building with a total square footage of 63,500 s.f. and the remainder of the site would be cleared of its existing uses but not be developed. This represents a reduced in development of 206,837 s.f. compared to the Project (an approximately 76.5 percent reduction in building space). Under this alternative, no high-cube cold storage uses would occur. Access to the site would be similar to the Project with a proportional reduction in the number of passenger vehicle parking spaces to service the building. The balance of the site would be used for trailer parking exclusively serving the 63,500 s.f. building user. Although the proposed building size would be reduced, the development impact area would generally remain the same as the Project. This alternative was selected to evaluate a scenario that would reduce the total building size on the Project site, eliminate the high-cube cold storage use, and would not take into account of existing trips generation in order to reduced vehicle and truck trips and significant impacts associated with VMT.

## 6.4 ALTERNATIVES CONSIDERED BUT REJECTED

An EIR is required to identify any alternatives that were considered by the Lead Agency but were rejected as infeasible. Among the factors described by CEQA Guidelines §15126.6 in determining whether to exclude alternatives from detailed consideration in the EIR are: a) failure to meet most of the basic project objectives, b) infeasibility, or c) inability to avoid significant environmental impacts. With respect to the feasibility of potential alternatives to the Project, CEQA Guidelines §15126.6(f)(1) notes:

*“Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries...and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site...”*

In determining an appropriate range of alternatives to be evaluated in this EIR, a number of possible alternatives were initially considered and, for a variety of reasons, rejected. Alternatives were rejected because either: 1) they could not accomplish the basic objectives of the Project, 2) they would not have resulted in a reduction of significant adverse environmental impacts, or 3) they were considered infeasible to construct or operate. A summary of the alternatives that were considered but rejected are described below.

### 6.4.1 ALTERNATIVE SITES

CEQA requires that the discussion of alternatives focus on alternatives to the Project or its location that are capable of avoiding or substantially lessening any significant effects of the Project. The key question and first step in the analysis is determining whether any of the significant effects of the project would be avoided or substantially lessened by developing the project at another location. Only



locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR (CEQA Guidelines §15126.6(f)(2)).

As discussed above, the Project would result in a significant and unavoidable VMT impact. Development of the Project in an alternative location in the general vicinity of the Project site would not reduce the VMT impact, as trip lengths would not substantially reduce such that the VMT impact could be relieved. Also, placing the Project in a different location would result in similar less-than-significant environmental impacts as would occur with implementation of the Project at its proposed location because the Project's environmental effects are primarily related to vehicles traveling to/from the Project site (air pollutant and greenhouse gas emissions) and not related to the presence of sensitive resources on the Project site or its location near sensitive receptors. Vehicle-related impacts are a direct reflection of the Project's expected operational characteristics, regardless of the property where the Project is located. In fact, if an alternative site were selected for the Project that was located farther from major arterial roads that are designated truck routes, like East Airport Drive for example, or regional freeways like I-15 and I-10, than the Project Site, the severity of the Project's VMT impacts would increase as miles traveled for vehicles going to/from the Project would increase.

Similarly, there are no existing, developed sites for sale that are a similar size as the Project site within close proximity to the key freeway infrastructure and that could reasonably be controlled by the Project Applicant for the purpose of developing the Project. Furthermore, the Project Applicant does not hold ownership control over any other adequately sized parcels of land in or near the Project site that could be used as an alternative location for the proposed Project. CEQA does not require sites that are not owned by the landowner or that could not be reasonably acquired by the landowner to be considered as an alternative to the Project.

Therefore, because an alternative location is not available that would avoid or substantially lessen the significant environmental effects of the Project, and because the Project Applicant does not have ownership control over, and cannot reasonably obtain ownership control over, any other parcels of land of adequate size in the jurisdiction of the City that could accommodate the Project, an alternative location alternative is not required to be analyzed. Accordingly, this alternative is not further considered in the Draft EIR.

## **6.5 ALTERNATIVE ANALYSIS**

The City has identified the following alternatives as a range of reasonable alternatives to the Project in accordance with CEQA Guidelines §15126.6. These alternatives are described in more detail and evaluated for their level of environmental effects, compared to the Project's environmental effects.

The following discussion compares the impacts of each alternative considered by the City with the impacts of the Project, as detailed in Section 4.0, *Environmental Analysis*, of this EIR. Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code §21002.1), CEQA Guidelines §15126.6(d) requires that the discussion of alternatives focus on alternatives which are capable of avoiding or substantially lessening



the significant effects of the Project. Therefore, the analysis provided herein focuses on a comparison of the Project's significant impacts to the level of impact that would occur under each evaluated alternative. The Project's significant and unavoidable impact is VMT. Although the Project's less-than-significant impacts also are compared to the alternatives evaluated herein, the emphasis of the comparative discussion in this analysis relates to the significant impacts of the Project that require mitigation as required by CEQA. A conclusion is provided for each significant impact of the Project as to whether the alternative results in one of the following: 1) reduction or elimination of the Project's impact, 2) a greater impact than would occur under the Project, 3) the same impact as the proposed Project, or 4) a new impact in addition to the Project's impacts.

Table 6-1, *Alternatives to the Project – Comparison of Environmental Impacts*, at the end of this Section compares the significant impacts of the Project with the level of impact that would be caused by the alternatives evaluated herein and identifies the ability of each alternative to meet the fundamental purpose and basic objectives of the Project, listed above under 6.2, *Project Objectives*.

### 6.5.1 NO PROJECT/NO DEVELOPMENT ALTERNATIVE

The No Project/No Development Alternative considers no development on the Project site beyond what occurs on the site under existing conditions (as described in EIR Section 3.0). As such, the Alternative is considered to be the scenario where the existing grain processing company and corn storage and distribution facility are retained and the facility continues to its current operation into the future. It is acknowledged, however, that continuing the existing uses is a presumption for purposes of analysis herein and in reality the operator of those facilities may not continue operations and the site could become unoccupied and unused under the scenario of the No Project Alternative. Under this alternative, no improvements would be made to the Project site and none of the Project's internal parking, utility, and other infrastructure improvements would occur. This alternative was selected by the City to compare the environmental effects of the proposed Project with an alternative that would leave the Project site undeveloped in its general existing conditions.

#### A. Aesthetics

The No Project/No Development Alternative does not involve any new development or change in current uses. Under the No Project/No Development Alternative, the visual character and quality of the Project Site would be maintained in its existing condition. No new structures, landscaping, or lighting would be introduced on the Project Site. The No Project Alternative would not have the potential to conflict with the existing character or quality of existing and planned development surrounding the Project Site and would not create a new source of substantial light or glare that would impact nighttime views in the area. No significant aesthetic impacts related to aesthetics were identified for the Project and no significant aesthetic impacts would occur under this alternative.

#### B. Air Quality

The No Project/No Development Alternative would not involve construction activities. The No Project/No Development Alternative would result in less construction-related air pollutant emissions



compared to the Project; however, the Project's construction-related air quality impacts would be less than significant. Therefore, the No Project Alternative would not avoid any significant construction-related air quality impacts.

The Project Site currently contains a grain processing company and a corn storage and distribution facility that generate nominal amounts of air pollution associated with typical business operations. The No Project Alternative would leave the Project Site in its existing condition and would retain these uses (and less than significant amounts of air pollution).

***C. Cultural Resources***

The No Project/No Development Alternative would leave the Project Site in its existing condition; no grading would occur under this Alternative and there would be no potential impacts to subsurface archeological resources that may exist beneath the ground surface. Although there are mitigation measures identified in EIR Subsection 4.3 that would reduce the Project's direct and cumulatively considerable impacts to cultural resources to below a level of significance, implementation of the No Project/No Development Alternative would avoid potential impacts to cultural resources associated with the Project and would require no mitigation.

***D. Energy***

Under the No Project/No Development Alternative, the existing uses on the Project Site would continue to operate; therefore, there would be nominal demand for near-term and long-term electricity and fuel use on the Site. Selection of this Alternative would result in a less than significant impact to energy and would reduce the Project's near- and long-term energy use.

***E. Geology and Soils***

The No Project/No Development Alternative would leave the Project Site in its existing condition. The No Project/No Development Alternative would not construct any new structures on the Project Site; accordingly, there would be no potential for this Alternative to expose people or structures to safety risks associated with geologic hazards.

With respect to paleontological resources, the No Project Alternative would not involve any excavation or grading activities; therefore, the potential to discover previously unidentified paleontological resources is eliminated. As such, the potential for impacts to paleontological resources with the No Project/No Development Alternative would be less than with the Project; however, the Project's potential impacts would be less than significant with Project level mitigation. Therefore, the No Project Alternative would not avoid any significant impacts related to paleontological resources.

***F. Greenhouse Gas Emissions***

Under the No Project/No Development Alternative, no new development would occur on the Project Site and the existing facility on-site would continue to operate. With the exception of ongoing nominal





GHG emissions associated with on-site business activities, there would be no new sources of near-term or long-term GHG emissions under the No Project/No Development Alternative; however, the Project's impacts would be less than significant. Therefore, the No Project/No Development Alternative would not avoid any significant impacts related to GHG emissions.

#### ***G. Hazards and Hazardous Materials***

As identified in Subsection 4.7, with adherence to applicable regulations and implementation of mitigation measures, the Project would have no impact or a less than significant impact related to hazards and hazardous materials. As with the Project, the No Project/No Development Alternative would be operated in compliance with applicable regulations and would have a less than significant impact related to transport, use and disposal of hazardous materials; and, release of hazardous materials and hazardous emissions. No mitigation measure would be required under this alternative. Additionally, consistent with the Project, the No Project/No Development Alternative would have no impact or a less than significant impact related to its location on a hazardous materials site, hazards from airport operations, emergency response/evacuation, and wildland fires.

#### ***H. Hydrology and Water Quality***

No changes to the Site's existing hydrology and drainage conditions would occur under the No Project/No Development Alternative. No stormwater drainage improvements would be constructed on or adjacent to the Project Site and rainfall would continue to be discharged from the Project Site as sheet flow, as occurs under existing conditions. Under this Alternative, the stormwater leaving the Project Site would continue to flow south and discharges onto the existing curb and gutter on East Airport Drive. Runoff flows east along East Airport Drive and discharges into an existing catch basin located approximately 1,500 feet east of the Site. No drainage improvements or water quality features would be installed under this alternative. This alternative would not include the development of new source control, site design, and treatment control best management practices (BMPs) to minimize runoff and water pollutants, which would occur under the Project. The No Project/No Development Alternative would result in greater impacts to hydrology and water quality than the proposed Project; however, under this Alternative, impacts would remain less than significant.

#### ***I. Noise***

The No Project/No Development Alternative would not involve construction activities; therefore, noise and vibration effects associated with construction would be less than the Project and the Project's construction-related noise impacts would be less than significant. The No Project/No Development Alternative would not avoid any significant impacts related to noise during construction.

Under the No Project/No Development Alternative, no new sources of permanent noise would be introduced on the Project Site and the noise generated by on-Site activities would continue. Additionally, because the Project Site would not be developed and no new traffic trips would be generated, the No Project/No Development Alternative would not contribute to an incremental increase



in area-wide traffic noise levels. Selection of this Alternative would avoid the Project's less-than-significant long-term noise impacts.

***J. Transportation***

The No Project/No Development Alternative would not generate any new daily traffic. Accordingly, this Alternative would avoid the Project's significant and unavoidable VMT impact.

***K. Tribal Cultural Resources***

The No Project/No Development Alternative would not involve any excavation or grading activities; therefore, the potential to discover previously unidentified tribal cultural resources is eliminated. As such, the potential for impacts to tribal cultural resources with the No Project/No Development Alternative would be less than with the Project; however, the Project potential impacts are considered less than significant with incorporation of the mitigation measures in this EIR. Therefore, the No Project/No Development Alternative would not avoid any significant impacts related to tribal cultural resources.

***L. Utilities and Service Systems***

No new domestic water, sewer, or stormwater drainage facilities would be needed for the No Project/No Development Alternative, and there would be no new demand for domestic water or wastewater treatment services. Also, this Alternative would not demand solid waste collection and disposal services. Neither the Project nor the No Project/No Development Alternative would result in significant or cumulatively-considerable impacts to utilities and service systems. Nonetheless, selection of this Alternative would avoid all of the Project's demand placed on utilities and service systems.

***M. Conclusion***

***1. Avoid or Substantially Lessen the Significant Impacts of the Project***

Implementation of the No Project/No Development Alternative would result in no physical environmental impacts to the Project Site beyond those that have historically occurred on the Project Site. All potentially significant effects of the Project would be avoided by the selection of this Alternative.

***2. Attainment of Project Objectives***

Because the No Project/No Development Alternative would not redevelop the Project Site and would not expand economic development or facilitate job creation, the No Project Alternative would fail to meet all of the Project's objectives.



### 6.5.2 REDUCED BUILDING AREA ALTERNATIVE

The Reduced Building Area Alternative considers a proposal where the Project site would be redeveloped with two uses: a light industrial building and a trailer parking lot. Under this Alternative, a 135,169 s.f. light industrial building (including related site improvements such as truck loading/unloading areas and parking, passenger vehicle parking, landscaping, signage, and public utility connections) would be developed on the eastern portion of the Project site and a trailer parking lot would be developed on the western portion of the Project site. This alternative was selected to evaluate a scenario that would reduce the total building area on the Project site relative to the Project but still allow productive industrial use of the entire Project site.

#### ***A. Aesthetics***

Under the Reduced Building Area Alternative, the eastern portion of the Project site would look similar to the Project, just at a reduced scale while the western portion of the site would be used for trailer parking. It is expected that the overall visual appearance under this alternative would be similar to the Project and would not represent a significant impact. As with the Project, the development associated with the Reduced Building Area Alternative would comply with the City's Development Code. Overall, the Reduced Building Area Alternative's effect on aesthetics would be comparable the Project and would remain less than significant.

#### ***B. Air Quality***

Under this Alternative, the overall duration of construction would be reduced as compared to the Project, due to the reduction of approximately 135,169 s.f. of building area (although the reduction on building area under the Reduced Building Area Alternative would be partially offset by this alternative's requirement for substantially more paving). As such, the total amount of air pollutant emissions generated during the construction phase would be reduced under this Alternative as compared to the Project. The peak daily intensity of construction activities at the Project site would be similar under both this Alternative and the Project because both would: 1) disturb the same physical area; 2) utilize the same types of construction equipment; and 3) require the same types of construction activities. Therefore, the total daily emissions during the construction phase would be less than significant and similar to the Project.

Because the Reduced Building Area Alternative would result in less building floor area than the Project, this Alternative is expected to require less energy to operate than the Project and, therefore, would result in a reduction of non-mobile source air quality emissions as compared to the Project. The Reduced Building Area Alternative would generate a reduced amount of mobile source air pollutant emissions as the Project from heavy truck traffic and would reduce mobile source air quality emissions from passenger vehicles due to a reduction in employees on-site. In total, the Reduced Building Area Alternative would reduce the Project's operational regional air quality emissions and be less than significant.



Because heavy truck trip traffic would be reduced between the Reduced Building Area Alternative and the Project, the Reduced Building Area Alternative would result in reduced – and less than significant – carcinogenic and non-carcinogenic health risk hazards as the Project.

Like the Project, the Reduced Building Area Alternative would generate odors during short-term construction activities (e.g., diesel equipment exhaust, architectural coatings, asphalt) and long-term operation (e.g., diesel exhaust). Similar to the Project, these odors would occur intermittently, be of short-term duration, and would not be substantial. Long-term operation of this Alternative would not create objectionable odors affecting a substantial number of people and impacts would be less than significant with compliance with mandatory regulatory requirements.

### ***C. Cultural Resources***

The Reduced Building Area Alternative would develop the entire Project site and would result in identical impacts to cultural resources as the Project. The Reduced Building Area Alternative would require similar mitigation as the Project and, after mitigation, both the Reduced Building Area Alternative and the Project would result in less-than-significant impacts to cultural resources.

### ***D. Energy***

Because the Reduced Building Area Alternative would result in less building floor area than the Project, the Reduced Building Area Alternative is expected to require less energy to construct and operate than the Project and, therefore, would result in a reduction of energy usage as compared to the Project. Additionally, the Reduced Building Area Alternative would generate fewer daily passenger vehicle trips than the Project and would reduce transportation energy demands. The Reduced Building Area Alternative would result in a less-than-significant impact, which is the same conclusion drawn for the Project.

### ***E. Geology and Soils***

This alternative would disturb the same physical area as the Project and would, therefore, have the same potential for soil erosion during the construction phase as the Project. Soil erosion impacts would be less than significant under both the Project and this Alternative due to mandatory compliance with federal, State, and local water quality standards. The Reduced Building Area Alternative would be required to comply with the same mandatory regulatory requirements as the Project to preclude substantial hazards associated with seismic ground shaking and geologic hazards. The Reduced Building Area Alternative would result in a similar, less-than-significant impact to geology and soils as the Project.

### ***F. Greenhouse Gas Emissions***

Because the Reduced Building Area Alternative would result in less building floor area than the Project, the Reduced Building Area Alternative is expected to require less energy to construct and operate than the Project and, therefore, would result in a reduction of non-mobile source GHG



emissions as compared to the Project. Additionally, the Reduced Building Area Alternative would result in an incremental reduction in mobile source GHG emissions due to a reduction in daily passenger vehicle traffic. The Reduced Building Area Alternative would result in a less-than-significant impact, which is the same conclusion drawn for the Project.

***G. Hazards and Hazardous Materials***

Neither implementation of the Reduced Building Area Alternative nor the Project would result in a significant impact related to hazards or hazardous materials. Land uses that would occur on-site under the Reduced Building Area Alternative would have a similar potential to handle and store hazardous materials than the Project. With mandatory regulatory compliance, both the Reduced Building Area Alternative and the Project would pose a less-than-significant hazard to the public or the environment related to the use, handling, storage, and/or transport of hazardous materials.

***H. Hydrology and Water Quality***

Neither the Project nor the Reduced Building Area Alternative would result in substantial alterations to the drainage pattern of the site or would result in substantial erosion effects. Accordingly, implementation of the Project and the Reduced Building Area Alternative would both result in less-than-significant impacts to existing drainage patterns.

During construction, potential hydrology and water quality effects on the Project site would be similar under both the Reduced Building Area Alternative and the Project due to this alternative and the Project both disturbing the same physical area. Like the Project, the Reduced Building Area Alternative would be required to implement a SWPPP to ensure that stormwater runoff during construction does not contain substantial pollutant concentrations. Both the Project and the Reduced Building Area Alternative would result in less than significant construction impacts to hydrology and water quality.

In the long-term, potential hydrology and water quality effects on the Project site would be similar under both the Reduced Building Area Alternative and the Project due to this alternative and the Project both providing a similar amount of non-pervious surfaces. Like the Project, the Reduced Building Area Alternative would be required to implement a drainage plan to ensure that stormwater runoff is conveyed to local and regional stormwater drainage facilities with adequate capacity to handle runoff flows from the Project site. Additionally, like the Project, the Reduced Building Area Alternative would be required to implement a long term WQMP to ensure that stormwater runoff leaving the Project site does not contain substantial pollutant concentrations. Both the Project and the Reduced Building Area Alternative would result in less than significant operational impacts to hydrology and water quality.

***I. Noise***

Noise associated with this Alternative would occur during short-term construction activities and under long term operation. The types of daily construction activities conducted on the Project site would be similar (and less than significant) under both the Reduced Building Area Alternative and the Project,



although the length of construction activities would be slightly decreased under this alternative as less building floor area would be constructed on-site. It is anticipated that the total duration of noise impacts during the building construction phase would be slightly decreased under this alternative as compared to the Project and impacts would be less than significant. Under long-term operational conditions, noise impacts from operations on the Project site (i.e., stationary noise) would be similar (and less than significant) relative to the Project due to relatively similar operational practices (i.e., cargo loading/unloading activities) and similar daily heavy truck traffic volumes.

#### ***J.     Transportation***

The Reduced Building Area Alternative and the Project would not conflict with applicable programs, plans, ordinances or policies addressing the circulation system; would not create hazards through design; and, would not result in inadequate emergency access. As with the Project, these impacts under this alternative would remain less than significant.

Construction and operation-related vehicle truck trips would be reduced under the Reduced Building Area Alternative. Trip generation is based on land uses and its associated square footage. Based on the reduced building size, daily net new vehicle trip-ends per day would be proportionally decrease by approximately 50 percent and net new average daily trips under this alternative would be less than 110 daily vehicle trips. The Reduced Building Area Alternative would meet the Project Type Screening threshold and VMT impacts would be less than significant and would eliminate the Project's significant and unavoidable VMT impact.

#### ***K.     Tribal Cultural Resources***

The Reduced Building Area Alternative would develop the entire Project site and would result in identical impacts to tribal cultural resources as the Project. The Reduced Building Area Alternative would require similar mitigation as the Project and, after mitigation, both the Reduced Building Area Alternative and the Project would result in less-than-significant impacts to tribal cultural resources.

#### ***L.     Utilities and Service Systems***

Due to a reduced building area, the Reduced Building Area Alternative is expected to have a reduced demand for utilities and services systems, including water, sewer, storm water drainage service/facilities, and solid waste collection and disposal, as compared to the Project. As with the Project, the Reduced Building Area Alternative is expected to result in a less-than-significant impact to utilities and services systems.

#### ***M.     Conclusion***

##### ***1.     Avoid or Substantially Lessen the Significant Impacts of the Project***

The Reduced Building Area Alternative would avoid the Project's significant and unavoidable VMT impacts. The Reduced Building Area Alternative would reduce the Project's less-than-significant



impacts to air quality, energy, greenhouse gas emissions, and utilities and service systems. All other impacts from the Reduced Building Alternative would be similar to the Project.

## 2. *Attainment of Project Objectives*

The Reduced Building Area Alternative would meet Project Objectives “A” and “B” less effectively than the Project due to the reduction in building area on-site. The Reduced Building Area Alternative would meet all of the Project’s other objectives.

### 6.5.1 REDUCED INTENSITY ALTERNATIVE

The Reduced Intensity Alternative considers a proposal where the Project site would be redeveloped with an industrial building with a total square footage of 63,500 s.f. and the balance of the site would be cleared of existing uses but would not be developed. This represents a reduction in development of 206,837 s.f. compared to the Project (an approximate 76.5 percent reduction). Under this alternative, no high-cube cold storage uses would occur. Access to the site would be similar to the Project with a proportional reduction in the number of passenger vehicle and truck parking spaces. This alternative was selected to evaluate a scenario that would reduce the total building size on the Project site, eliminate the high-cube cold storage use, and would not take into account elimination of existing trips generated by the existing uses in order to achieve a less-than-significant VMT impact. With a building size of 63,500 s.f. and taking no credit for the elimination of existing vehicle trips serving the existing uses on the site, a 63,500 s.f building would generate fewer than 110 daily trips and meet the City’s small project screening criteria for a less-than-significant VMT impact.

#### A. *Aesthetics*

Under the Reduced Intensity Alternative, the Project site would be replaced with a single industrial building totaling 63,500 s.f. at the same height as the Project. The overall visual appearance under this alternative on the developed portion of the site would be similar to the Project and would not represent a significant impact. As with the Project, the development associated with the Reduced Intensity Alternative would comply with the City’s Development Code. Overall, the Reduced Building Intensity Alternative’s effect on aesthetics would be comparable the Project and would remain less than significant.

#### B. *Air Quality*

Under this Alternative, the overall duration of construction would be reduced as compared to the Project, due to the reduction of approximately 206,837 s.f. of building area. The total amount of air pollutant emissions generated during the construction phase would be reduced under this Alternative as compared to the Project; however, the peak daily intensity of construction activities at the Project site would be similar under both this Alternative and the Project because both would: 1) disturb the same maximum physical area per day; 2) utilize the same types of construction equipment; and 3) require the same types of construction activities. Therefore, the total daily emissions during the construction phase would be less than significant and similar to the Project.



Because the Reduced Intensity Alternative would result in less building floor area than the Project, this Alternative would require less energy to operate than the Project and, therefore, would result in a reduction of non-mobile source air quality emissions as compared to the Project. The Reduced Intensity Alternative would generate a reduced amount of mobile source air pollutant emissions as the Project from heavy truck traffic and would significantly reduce mobile source air quality emissions from passenger vehicles due to a reduction in employees on-site. In total, the Reduced Intensity Alternative would reduce the Project's operational regional air quality emissions and be less than significant.

Because heavy truck trip traffic would be reduced between the Reduced Intensity Alternative and the Project, the Reduced Intensity Alternative would result in reduced – and less than significant – carcinogenic and non-carcinogenic health risk hazards as the Project.

Like the Project, the Reduced Intensity Alternative would generate odors during short-term construction activities (e.g., diesel equipment exhaust, architectural coatings, asphalt) and long-term operation (e.g., diesel exhaust). Similar to the Project, these odors would occur intermittently, be of short-term duration, and would not be substantial. Long-term operation of this Alternative would not create objectionable odors affecting a substantial number of people and impacts would be less than significant with compliance with mandatory regulatory requirements.

### ***C. Cultural Resources***

The Reduced Intensity Alternative would develop a smaller portion of Project site but disturb the entire Project site for demolition. Because depth of ground disturbance on the undeveloped portion of the site would be more shallow, this Alternative has a lesser potential for impacts to cultural resources than the Project. The Reduced Intensity Alternative would require similar mitigation as the Project and, after mitigation, both the Reduced Intensity Alternative and the Project would result in less-than-significant impacts to cultural resources.

### ***D. Energy***

Because the Reduced Intensity Alternative would result in less building floor area than the Project, the Reduced Intensity Alternative would require less energy to construct and operate than the Project and, therefore, would result in a reduction of energy usage as compared to the Project. Additionally, the Reduced Intensity Alternative would generate fewer daily passenger vehicle trips than the Project and would reduce transportation energy demands. The Reduced Building Area Alternative would result in a less-than-significant impact, which is the same conclusion drawn for the Project.

### ***E. Geology and Soils***

This alternative would disturb the same physical area as the Project and would, therefore, have the same potential for soil erosion during the construction phase as the Project. Soil erosion impacts would be less than significant under both the Project and this Alternative due to mandatory compliance with federal, State, and local water quality standards. The Reduced Intensity Alternative would be required to comply with the same mandatory regulatory requirements as the Project to preclude substantial





hazards associated with seismic ground shaking and geologic hazards. The Reduced Intensity Alternative would develop a smaller portion of Project site but disturb the entire Project site for demolition. Because depth of ground disturbance on the undeveloped portion of the site would be shallower, this Alternative has a lesser potential for impacts to paleontological resources than the Project. The Reduced Intensity Alternative would result in a similar, less-than-significant impact to geology and soils as the Project.

***F. Greenhouse Gas Emissions***

Because the Reduced Intensity Alternative would result in less building floor area than the Project, the Reduced Intensity Alternative would require less energy to construct and operate than the Project and, therefore, would result in a reduction of non-mobile source GHG emissions as compared to the Project. Additionally, the Reduced Intensity Alternative would result in a reduction in mobile source GHG emissions due to a reduction in daily passenger vehicle traffic. The Reduced Intensity Alternative would result in a less-than-significant impact, which is the same conclusion drawn for the Project.

***G. Hazards and Hazardous Materials***

Neither implementation of the Reduced Intensity Alternative nor the Project would result in a significant impact related to hazards or hazardous materials. Land uses that would occur on-site under the Reduced Intensity Alternative would have a similar potential to handle and store hazardous materials than the Project. With mandatory regulatory compliance, both the Reduced Intensity Alternative and the Project would pose a less-than-significant hazard to the public or the environment related to the use, handling, storage, and/or transport of hazardous materials.

***H. Hydrology and Water Quality***

Neither the Project nor the Reduced Intensity Alternative would result in substantial alterations to the drainage pattern of the site or would result in substantial erosion effects. Accordingly, implementation of the Project and the Reduced Intensity Alternative would both result in less-than-significant impacts to existing drainage patterns.

During construction, potential hydrology and water quality effects on the Project site would be similar under both the Reduced Intensity Alternative and the Project due to this alternative and the Project both disturbing the same physical area. Like the Project, the Reduced Intensity Alternative would be required to implement a SWPPP to ensure that stormwater runoff during construction does not contain substantial pollutant concentrations. Both the Project and the Reduced Intensity Alternative would result in less than significant construction impacts to hydrology and water quality.

In the long-term, potential hydrology and water quality effects on the Project site would be less under both the Reduced Intensity Alternative as compared to the Project due to this alternative having a lesser extent of non-pervious surfaces. Under this alternative, it is assumed that the non-developed portion of the site would be hydroseeded and left undeveloped and unutilized. Similar to the Project, the Reduced Intensity Alternative would be required to implement a drainage plan to ensure that stormwater runoff



is conveyed to local and regional stormwater drainage facilities with adequate capacity to handle runoff flows from the Project site. Additionally, like the Project, the Reduced Intensity Alternative would be required to implement a long term WQMP to ensure that stormwater runoff leaving the Project site does not contain substantial pollutant concentrations. Both the Project and the Reduced Intensity Alternative would result in less than significant operational impacts to hydrology and water quality.

***I. Noise***

Noise associated with this Alternative would occur during short-term construction activities and under long term operation. The types of daily construction activities conducted on the Project site would be similar (and less than significant) under both the Reduced Intensity Alternative and the Project, although the length of construction activities would be decreased under this alternative as less building floor area would be constructed on-site. The total duration of noise impacts during the building construction phase would be decreased under this alternative as compared to the Project and impacts would be less than significant. Under long-term operational conditions, noise impacts from operations on the Project site (i.e., stationary noise) would be reduced (and less than significant) relative to the Project due to relatively similar operational practices (i.e., cargo loading/unloading activities) and reduced daily heavy truck traffic volumes.

***J. Transportation***

The Reduced Intensity Alternative and the Project would not conflict with applicable programs, plans, ordinances or policies addressing the circulation system; would not create hazards through design; and, would not result in inadequate emergency access. As with the Project, these impacts under this alternative would remain less than significant.

Construction and operational-related vehicle truck trips would be reduced under the Reduced Intensity Alternative. Trip generation is based on land uses and its associated square footage. As shown in Table 6-1, *Trip Generation under the Reduced Building Intensity Alternative*, based on the reduced building size, the Reduced Intensity Alternative is calculated to generate 108 daily vehicle trip-ends per day; therefore, net new average daily trips under this alternative would be less than 110 daily vehicle trips. The Reduced Intensity Alternative would meet the Project Type Screening threshold and VMT impacts would be less than significant. The Reduced Intensity Alternative would eliminate the Project’s significant and unavoidable VMT impacts.

**Table 6-1 Trip Generation under the Reduced Building Intensity Alternative**

Land Use	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	
Warehousing (Actual vehicles)							
Passenger Cars:	8	2	10	2	7	9	70
2-axle Trucks:	0	0	0	0	0	0	6
3-axle Trucks:	0	0	0	0	0	0	8
4+axle Trucks:	0	0	0	1	1	2	24
Total Truck Trips:	0	0	0	1	1	2	38



Land Use	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	
<b>Total Trips<sup>1</sup></b>	<b>8</b>	<b>2</b>	<b>10</b>	<b>3</b>	<b>8</b>	<b>11</b>	<b>108</b>

<sup>1</sup> Total Trips = Passenger Cars + Truck Trips.

***K. Tribal Cultural Resources***

The Reduced Intensity Alternative would develop a smaller portion of Project site, but disturb the entire Project site for demolition. Because depth of ground disturbance on the undeveloped portion of the site would be shallower, this Alternative has a lesser potential for impacts to Tribal Cultural Resources than the Project. The Reduced Intensity Alternative would require similar mitigation as the Project and, after mitigation, both the Reduced Intensity Alternative and the Project would result in less-than-significant impacts to Tribal Cultural Resources.

***L. Utilities and Service Systems***

Due to a reduced building area, the Reduced Intensity Alternative is expected to have a reduced demand for utilities and services systems, including water, sewer, storm water drainage service/facilities, and solid waste collection and disposal, as compared to the Project. Similar to the Project, the Reduced Intensity Alternative is expected to result in a less-than-significant impact to utilities and services systems.

***M. Conclusion***

***1. Avoid or Substantially Lessen the Significant Impacts of the Project***

The Reduced Intensity Alternative would avoid the Project’s significant and unavoidable VMT impact. The Reduced Intensity Area Alternative would reduce the Project’s less-than-significant impacts to air quality, energy, greenhouse gas emissions, noise, and utilities and service systems and reduce the potential for impacts to cultural, paleontological, and tribal cultural resources. All other impacts from the Reduced Intensity Alternative would be similar to the Project.

***2. Attainment of Project Objectives***

The Reduced Intensity Alternative would meet Project Objectives “A” and “B” less effectively than the Project due to the reduction in building area on-site and employees compared to the Project. The Reduced Intensity Alternative would meet all of the Project’s other objectives.

**6.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE**

Section 15126.6(e)(2) of the CEQA Guidelines indicates that an analysis of alternatives shall identify an environmentally superior alternative among the alternatives evaluated in the EIR. In general, the environmentally superior alternative as defined by CEQA should minimize adverse impacts to the Project site and its surrounding environment.



The No Project/No Development Alternative has the least impact to the environment because it would not involve any construction activities or warehouse operations. There would be no impacts associated with a cumulatively considerable VMT impact. This impact is considered significant and unavoidable for the Project. While this alternative would avoid the significant effect of the Project, it would not receive any benefits from the drainage improvements or water quality features that would be constructed by the Project. Additionally, none of the Project objectives would be met.

If a “no project” alternative is identified as the environmentally superior alternative then the EIR shall also identify an environmentally superior alternative among the other alternatives (see CEQA Guidelines Section 15126.6(e)(2)). The Reduced Building Area Alternative, as described in Subsection 6.5.2, is identified as the environmentally superior alternative, because the Reduced Building Area Alternative would result in the greatest reduction of environmental impacts among the remaining alternatives as summarized in Table 6-1. The reduction in impacts is due to the fact that the use would have reduced vehicular trips, which would result in a reduction in VMT impacts; however, the Reduced Building Area Alternative would only partially meet two of the Project’s objectives.

**Table 6-2 Alternatives to the Project – Comparison of Environmental Impacts**

Impact Area	Project	No Project/ No Development	Reduced Building Area	Reduced Intensity
Aesthetics	LTS	Reduced	Similar	Similar
Air Quality	LTS	Reduced	Reduced	Reduced
Cultural Resources	LTS/M	Reduced	Similar	Reduced
Energy	LTS	Reduced	Reduced	Reduced
Geology and Soils	LTS/M	Reduced	Similar	Reduced
Greenhouse Gas Emissions	LTS	Reduced	Reduced	Reduced
Hazards and Hazardous Materials	LTS/M	Reduced	Similar	Similar
Hydrology and Water Quality	LTS	Increase	Similar	Similar
Noise	LTS	Reduced	Similar	Reduced
Transportation	SU	Reduced*	Reduced*	Reduced*
Tribal Cultural Resources	LTS/M	Reduced	Similar	Reduced
Utilities and Service Systems	LTS	Reduced	Reduced	Reduced

LTS = Less than Significant; LTS/M = Less than Significant with Mitigation; SU = Significant and Unavoidable

\* = Eliminates SU impact.

**Table 6-1 Alternatives to the Project – Comparison of Environmental Impacts (Cont.)**

Project Objectives	No Project/ No Development	Reduced Building Area	Reduced Intensity
A. To expand economic development and facilitate job creation in the City of Ontario by re-developing the property with a new, in-demand industrial use adjacent to an already-established industrial area.	No	Yes, but less effectively than the Project	Yes, but less effectively than the Project



<b>Project Objectives</b>	<b>No Project/ No Development</b>	<b>Reduced Building Area</b>	<b>Reduced Intensity</b>
B. To attract employment-generating businesses to the City of Ontario to reduce the need for members of the local workforce to commute outside the area for employment.	No	Yes, but less effectively than the Project	Yes, but less effectively than the Project
C. To develop industrial buildings with loading bays in close proximity to designated truck routes and the State highway system to avoid or shorten heavy truck-trip lengths on City and regional roads.	No	Yes	Yes
D. To attract businesses that can expedite the delivery of goods to consumers and businesses in the City of Ontario and beyond.	No	Yes	Yes
E. To develop a project that has architectural design and operational characteristics that complement other existing and planned buildings in the immediate vicinity of the Project Site and minimize conflicts with other nearby land uses.	No	Yes	Yes
F. To develop a property that has access to available infrastructure, including roads and utilities.	No	Yes	Yes



## 7.0 REFERENCES

### 7.1 PERSONS CONTRIBUTING TO EIR PREPARATION

#### 7.1.1 CITY OF ONTARIO PLANNING DEPARTMENT

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### 7.2 DOCUMENTS APPENDED TO THIS EIR

The following reports, studies, and supporting documentation were used in preparing the 5355 East Airport Drive EIR and are bound separately as Technical Appendices. A copy of the Technical Appendices is available for review at the City of Ontario Planning Department at 303 East B Street, Ontario, CA 91764.

- Appendix A: 5355 East Airport Drive Notice of Preparation (NOP), and Written Comments on the NOP.
- Appendix B1: Urban Crossroads, 2022a. *5355 East Airport Drive Air Quality Impact Analysis*. August 30, 2022.
- Appendix B2: Urban Crossroads, 2022b. *5355 East Airport Drive Mobile Source Health Risk Assessment*. August 30, 2022.
- Appendix C: Brian F. Smith and Associates, Inc. (BFSA), 2022. *Cultural Resources Records Search Results for the 5355 Airport Drive Project, Ontario, California*. May 20, 2022.



- Appendix D: Urban Crossroads, 2022c. *5355 East Airport Drive Energy Analysis*. August 30, 2022.
- Appendix E1: Southern California Geotechnical (SCG), 2022a. *Geotechnical Investigation Proposed Warehouse 5355 East Airport Drive Ontario, California*. March 9, 2022.
- Appendix E2: Southern California Geotechnical, 2022b. *Infiltration Report*. March 9, 2022.
- Appendix F: Urban Crossroads, 2022d. *5355 East Airport Drive Greenhouse Gas Analysis*. August 30, 2022.
- Appendix G: Farallon Consulting, L.L.C. (Farallon), 2022. *Phase I/II Environmental Site Assessment*. March 31, 2022.
- Appendix H1: Westland Group, Inc. (Westland), 2022a. *Preliminary Hydrology Report*. March 2022.
- Appendix H2: Westland, 2022b. *Preliminary Water Quality Management Plan*. March 2022.
- Appendix I: Urban Crossroads, 2022e. *5355 East Airport Drive Noise Impact Analysis*. August 3, 2022.
- Appendix J: Urban Crossroads, 2023a. *5355 East Airport Drive Vehicle Miles Traveled Analysis*. January 3, 2023.
- Appendix K: Urban Crossroads, 2023b. *5355 East Airport Drive Trip Generation Assessment*. January 3, 2023.

### 7.3 DOCUMENTS INCORPORATED BY REFERENCE

The following reports, studies, and supporting documentation were used in the preparation of this EIR and are incorporated by reference within this EIR. A copy of the following reports, studies, and supporting documentation is a matter of public record and is generally available to the public at the location listed.

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US Census, 2012	United States Census Bureau (US Census), 2012. 2010 Census Urbanized Area Reference Map. Available on-line: <a href="https://www2.census.gov/geo/maps/dc10map/UAUC_RefMap/ua/ua75340_riverside--san_bernardino_ca/DC10UA75340.pdf">https://www2.census.gov/geo/maps/dc10map/UAUC_RefMap/ua/ua75340_riverside--san_bernardino_ca/DC10UA75340.pdf</a>

## **7.5 PERSONS CONSULTED/WRITTEN OR VERBAL COMMUNICATION**

### **7.5.1 TRIBAL CONSULTATION**

Gabrieleno Band of Mission Indians – Kizh Nation  
Andrew Salas, Chairperson

San Gabriel Band of Mission Indians  
Anthony Morales, Chairperson

San Manuel Band of Mission Indians  
Stephanie Guerrero, Cultural Resources Management Department

Soboba Band of Luiseno Indians  
Joseph Ontiveros, Cultural Resource Department



# Notice of Preparation

303 East B Street, Ontario, California 91764 Phone: 909.395.2036 / Fax: 909.395.2420

TO: Property Owners, Responsible Agencies & Interested Parties

FROM: City of Ontario, Planning Department, 303 East "B" Street, Ontario, CA 91764

SUBJECT: Notice of Preparation of a Draft Environmental Impact Report

NOTICE IS HEREBY GIVEN that pursuant to the California Environmental Quality Act (CEQA), the City of Ontario will be the Lead Agency and will prepare an Environmental Impact Report (EIR) for the project identified below. For regulatory agencies, we need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering a permit or other approval for the project.

**Project Title/File No.:** 5355 East Airport Drive (PDEV22-017)

**Project Location:** The Project site is located in southwestern San Bernardino County, within the City of Ontario. The City of Ontario is located approximately 40 miles from downtown Los Angeles, 20 miles from downtown San Bernardino, and 30 miles from Orange County. As illustrated on Figures 1, 2, and 3 attached, the 13.08-acre Project site is located at 5355 East Airport Drive (APN: 0238-052-29 and 0238-052-20). The Project site is bordered by East Airport Drive to the south, industrial uses to the east and west, and railroad tracks to the north.

**Project Description:** The Project Applicant seeks to demolish all existing on-site structures and re-develop the site as a warehouse distribution facility with approximately 270,337 square feet (s.f.) of building area as shown on Figure 4, *Site Plan*. Of the total building square footage, the Project would allocate 255,337 s.f. for ground floor space and 15,000 s.f. for mezzanine space. Development of the Project site would require demolition of the existing buildings and structures, on-site landscaping, and on-site parking. The proposed building would be a one-story, 48-foot-tall speculative warehouse/ distribution facility with office. The Project includes surface parking with 251 parking spaces including 135 standard automobile parking stalls, 7 accessible parking stalls, 25 electric vehicle parking stalls, and 84 additional standard stalls within the truck court. The Project would further include 48 truck trailer parking spaces located south of the building near the building's 54 proposed dock doors. A new 5' sidewalk would be constructed along East Airport Drive to provide pedestrian access from the public street to the primary building entrances. Bike racks also would be provided near the building entrance and electrical room. Ornamental landscaping, lighting, walls, and utility infrastructure improvements/connections would be installed per compliance with the City's Municipal Code. Vehicular access would be provided via 2 driveways connecting with East Airport Drive. A 14-foot-high concrete screen wall would border the Project site's southern boundary along the trailer parking spaces, which would transition to an 8-foot-high black tube steel gate from the gate entry to the truck driveways connecting with East Airport Drive. An 8-foot-high painted tube steel fence would border the Project's eastern and western boundaries. Although the future building user is not presently known, the proposed building is assumed to operate 24 hours a day, 7 days a week.

An Initial Study has not been prepared for the Project as the City has determined that an EIR will be required for the Project, which is in the discretion of the Lead Agency as set forth in State CEQA Guidelines Section 15063(a). The following environmental topics will be analyzed within the forthcoming Draft EIR:

- |   |   |   |
|---|---|---|
| <input checked="" type="checkbox"/> Aesthetics          | <input checked="" type="checkbox"/> Greenhouse Gas Emissions    | <input type="checkbox"/> Public Services                          |
| <input type="checkbox"/> Agriculture/Forestry Resources | <input checked="" type="checkbox"/> Hazards/Hazardous Materials | <input type="checkbox"/> Recreation                               |
| <input checked="" type="checkbox"/> Air Quality         | <input checked="" type="checkbox"/> Hydrology and Water Quality | <input checked="" type="checkbox"/> Transportation                |
| <input type="checkbox"/> Biological Resources           | <input type="checkbox"/> Land Use and Planning                  | <input checked="" type="checkbox"/> Tribal Cultural Resources     |
| <input checked="" type="checkbox"/> Cultural Resources  | <input type="checkbox"/> Mineral Resources                      | <input checked="" type="checkbox"/> Utilities and Service Systems |
| <input checked="" type="checkbox"/> Energy              | <input checked="" type="checkbox"/> Noise                       | <input type="checkbox"/> Wildfire                                 |
| <input checked="" type="checkbox"/> Geology and Soils   | <input type="checkbox"/> Population and Housing                 |   |

**Public Review Period:** The City welcomes input and comments regarding preparation of the EIR. In accordance with CEQA, the NOP will be circulated for a 30-day public review period. Should you have any comments, please provide a written response to this NOP within the 30-day NOP public review period, which extends from September 1, 2022 to September 30, 2022. Pursuant to CEQA Guidelines Section 15082, responsible and trustee agencies and other interested parties, including members of the public, must submit any comments in response to this notice no later than 30 days after receipt of the notice. Please send your response to the contact person identified below. We will need the name and contact information for a contact person in your agency.

Thomas Grahn  
City of Ontario Planning Department  
303 East B Street  
Ontario, CA 91764  
Phone: (909) 395-2413  
Email: [TGrahn@ontarioca.gov](mailto:TGrahn@ontarioca.gov)

**Scoping Meeting:** The proposed project  is,  is not, considered a project of statewide, regional, or area-wide significance. The proposed project  will,  will not, affect highways or other facilities under the jurisdiction of the State Department of Transportation. A scoping meeting  will,  will not, be held by the lead agency.

If the project meets the criteria requiring the scoping meeting, or if the agency voluntarily elects to hold such a meeting, the date, time, and location of the scoping meeting are as follows:


**Meeting Date and Time:** September 13, 2022, at 6 PM

**Meeting Location (Via Zoom):** <https://us02web.zoom.us/j/83565725981>; Webinar ID: 835 6572 5981

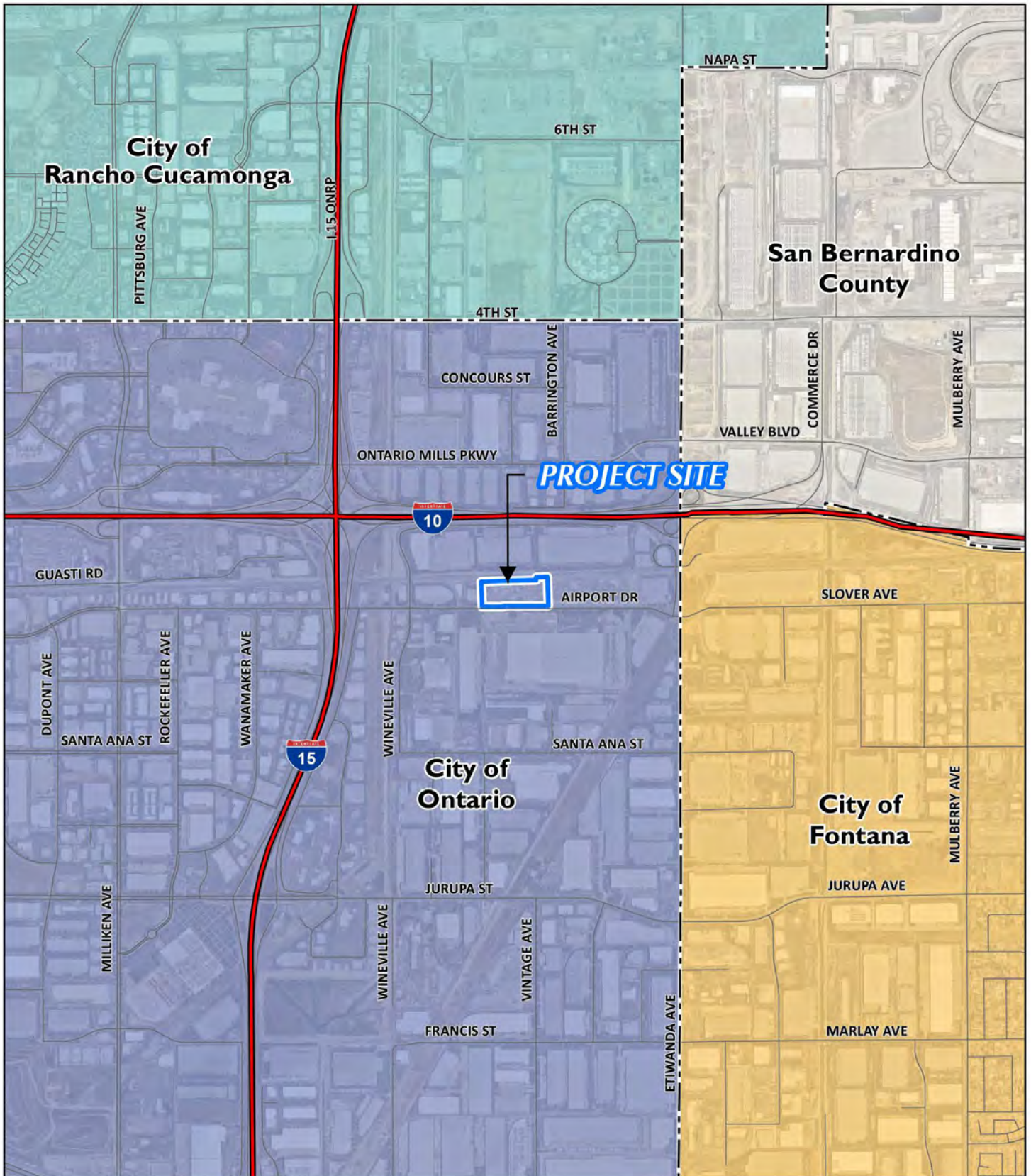
**By Phone:** +1(669)900-9128,,83565725981# or +1(669)444-9171,,83565725981#

**Project Applicant:** Prologis, Inc.; 17777 Center Court Dr N, Suite 100, Cerritos, CA 90703

**Consulting firm retained to prepare draft EIR:** T&B Planning, Inc.; 3200 El Camino Real, Suite 100, Irvine, CA 92602

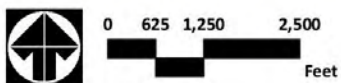
<b>Signature:</b> 	<b>Date:</b> 8/31/2022
<b>Name:</b> Thomas Grahn	<b>Title:</b> Senior Planner

**Reference:** California Code of Regulations, Title 14 (CEQA Guidelines) Sections 15082(a), 15103, and 15375.



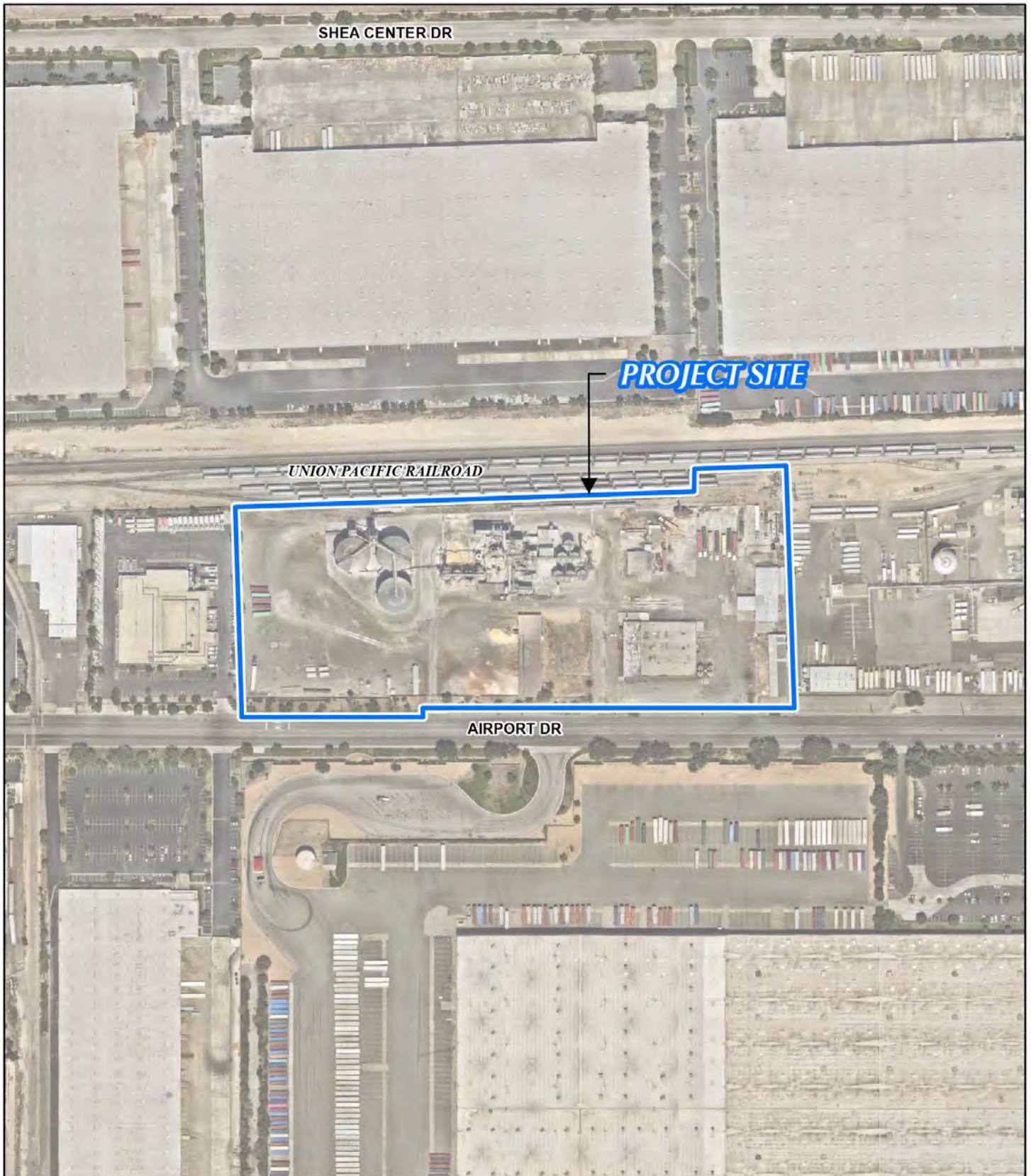
Source(s): ESRI, Nearmap Imagery (2022), SB County (2022)

Figure 1



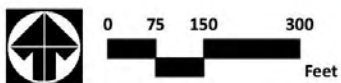
Vicinity Map

5355 East Airport Drive



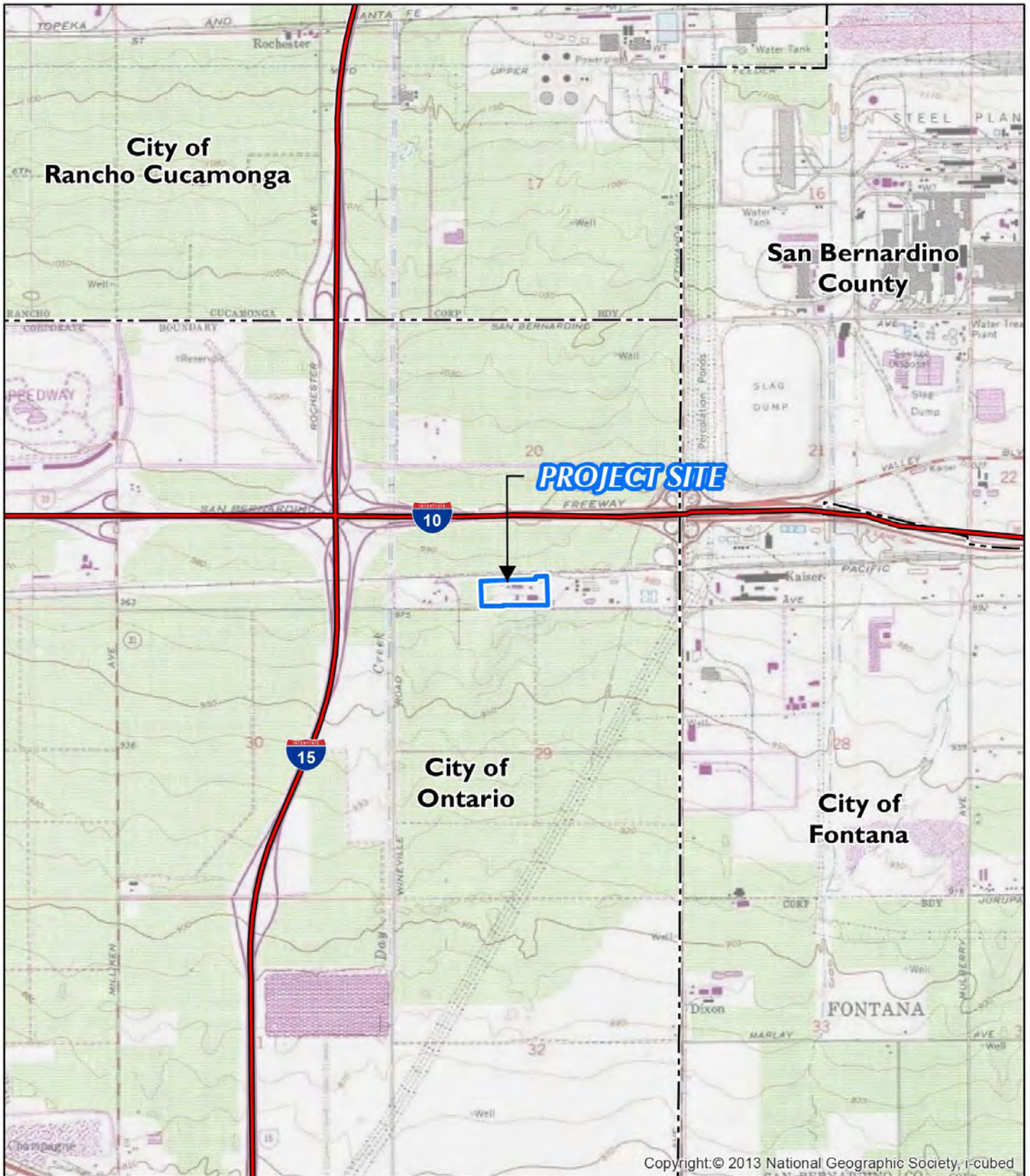
Source(s): ESRI, Nearmap Imagery (2022), SB County (2022)

Figure 2



Aerial Photograph

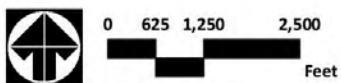
5355 East Airport Drive



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Source(s): ESRI, USGS (2013)

Figure 3



USGS Topographic Map

5355 East Airport Drive



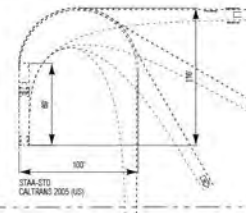
VICINITY MAP



GENERAL NOTES:

- EXISTING CONSTRUCTION SITE DESIRE TO BE REMOVED.
- THE SITE CURRENTLY SLOPES 4.1%.
- NO SIGNS ARE PROPOSED WITH THIS APPLICATION PACKAGE.
- ALL PROPOSED NEW ON-SITE UTILITY SERVICES SHALL BE UNDEGROUND.
- DRIVEWAYS SHALL BE CONSTRUCTED PER CITY STANDARD PLAN.
- DAMAGED SECTIONS OF CURB & GUTTER ADJOINING PUBLIC RIGHT OF WAY SHALL BE REPAIRED.
- SITE PLAN SHALL MEET ALL ENGINEERING AND WPOES REQUIREMENTS.
- ALL EXTERIOR LIGHT SHALL BE A 110 VAC.
- ALL BACKFLOW DEVICES SHALL HAVE A SECURE LOCKABLE CASE AROUND IT.
- SLOPES GREATER THAN 3% WILL REQUIRE A STEPPED DETENTION WITH GRASSCOVER.
- ALL OUT SWIRLING DOORS TO HAVE NON-REMOVABLE HINGE PINS.
- ALL NOT LANDSCAPE FINISHES SHALL BE 2" OF WIRE. EACH FINISH WILL HAVE A 12" WIDE STEP OUT ADJACENT TO CAR PARKING AND ALL LANDSCAPE CURED TO BE 6" HIGH.
- ALL GROUND MOUNTED UTILITY STRUCTURES SHALL BE LOCATED OUT OF VIEW AS BEST AS POSSIBLE FROM PUBLIC VIEW. PROVIDE ADDITIONAL LANDSCAPE SCREENING AROUND STRUCTURES.

TRUCK TURNING DIAGRAM



KEYNOTES:

- PROPOSED PAINTED CONCRETE TILT-UP 40' CLEAR INDUSTRIAL BUILDING.
- TYPICAL PARKING STALL - 8' X 18' MAY BE REDUCED TO 8' X 18 W/ 2'-0" OVERHANG STRIPPING PER CITY STANDARD.
- TYPICAL CARPOOL/BIKESHOOT PARKING STALL - 8' X 18' MAY BE REDUCED TO 8' X 18 W/ 2'-0" OVERHANG STRIPPING PER CITY STANDARD.
- CONCRETE PAVED TRUCK COURT.
- FULLY IRRIGATED LANDSCAPE AREA BOUNDED BY 6" CONCRETE CURB - SEE CONCEPT LANDSCAPE PLAN.
- PRIMARY BUILDING ENTRANCE W/ DECORATIVE CONCRETE ENTRY WALK.
- LOCATION OF TRASH ENCLOSURE, SEE SHEET AS-1P.
- NEW 14'-0" HIGH CONCRETE SCREEN WALL, PAINTED AND CONSTRUCTED TO MATCH THE BUILDING FINISH. CONCRETE PAINT FOR THE BOTTOM 12'-0". SEE ELEVATIONS SHEET AS-1P FOR ELEVATIONS.
- PROPERTY LINES.
- PROPOSED TRANSFORMER LOCATION.
- 12' X 32' TRUCK TRAILER PARKING AREA.
- NEW ADA ACCESSIBLE PARKING STALLS 8' X 18'-0".
- DASHED LINE INDICATES: NEW 9'-0" WIDE SURFACE WALK, ACCESSIBLE PATH OF TRAVEL FROM PUBLIC SIDEWALK & PARKING STALLS TO PRIMARY BUILDING ENTRANCE - CONSTRUCT NEW CONCRETE SIDEWALK. MAX SLOPE OF SURFACE WALK IN THE DIRECTION OF TRAVEL 4.9%, MAX CROSS SLOPE 2%.
- PROVIDE ENHANCED DECORATIVE PAVING AT DRIVEWAY APPROACH WITH 2'-0" WIDE SMOOTH CONCRETE BAND.
- PROPOSED DRIVEWAYS PER CITY STANDARDS.
- PROPOSED CURB GUTTER PER CITY STANDARD.
- PROPOSED ON-SITE FIRE HYDRANT LOCATIONS.
- RATIO AREA WITH SEATING.
- CONCRETE LANDING AND BICYCLE RACK FOR BIKES. SEE PROJECT DATA FOR SPACES REQUIRED.
- LONG TERM MOUNTED BICYCLE RACK. NOTE: LONG TERM RACKS TO BE INSTALLED ADJACENT TO ELECTRICAL ROOM TO COMPLY WITH CALIFORNIA. SEE PROJECT DATA FOR SPACES REQUIRED.
- OWNER TO COORDINATE WITH THE RAIL COMPANY ON TIE STATUS OF THE RAIL SPURS. CURRENT PLAN IS TO REMOVE THE RAIL SPURS.

ZONING INFORMATION

OFFICE/WAREHOUSE  
 CONSTRUCTION TYPE  
 OCCUPANCY  
 ZONE  
 AIRPORT INFLUENCE AREA

II B  
 B/S-1/F-1  
 III (HEAVY INDUSTRIAL)  
 ZONE D

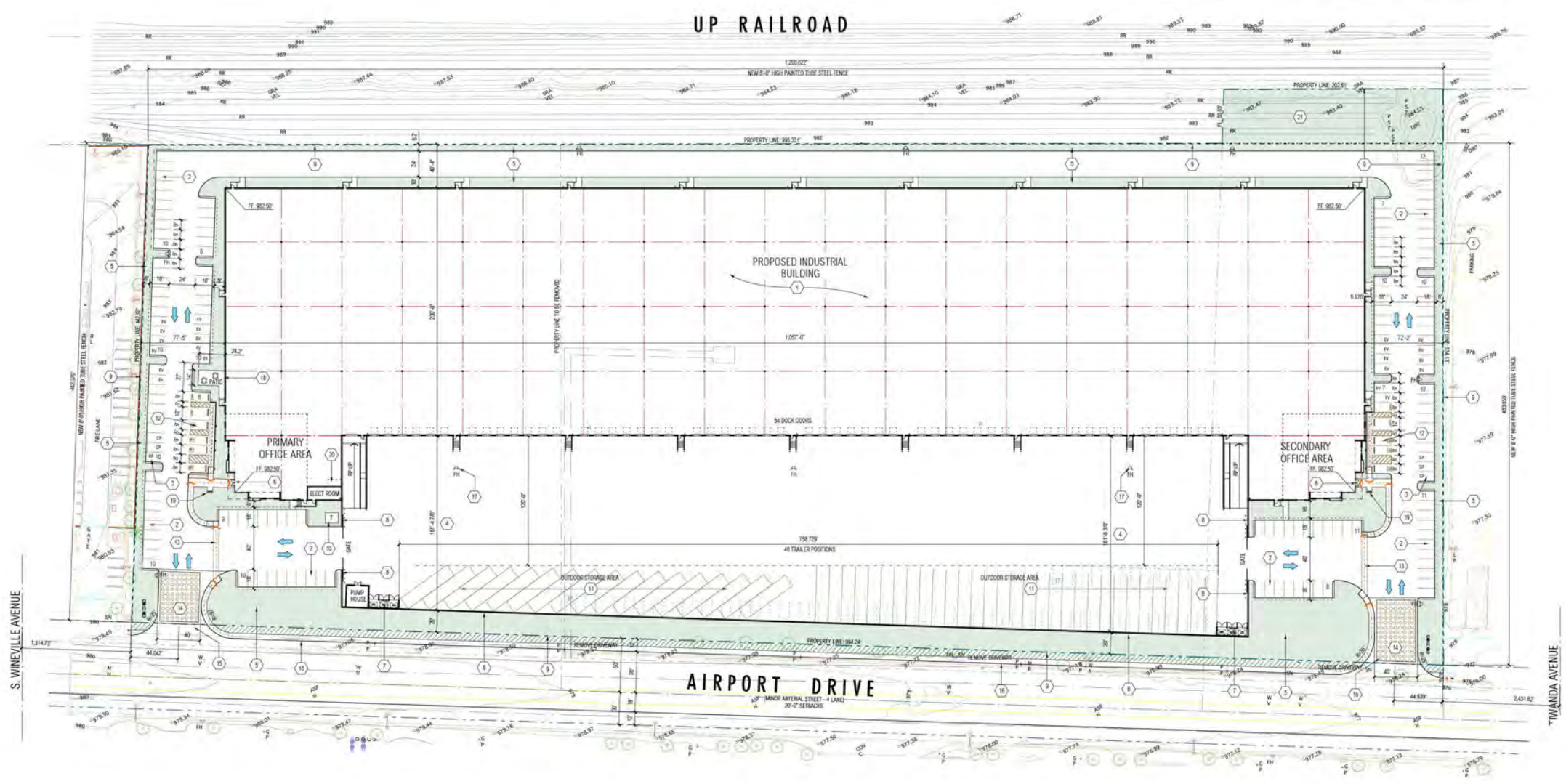
DEVELOPER / OWNER:  
 PROGRESS CP  
 2545 CONCRETE STREET, SUITE 100  
 OAKLAND, CA 94612  
 CONTACT: MIKE GILL  
 EMAIL: mikegill@progress.com

PREPARED BY:  
 ISA OFFICE OF ARCHITECTURAL DESIGN  
 12215 WILSON PARKWAY, SUITE 100  
 BROWNSVILLE, CA 92008  
 CONTACT: MIKE GILL  
 EMAIL: mikegill@archidesign.com

LEGAL DESCRIPTION:  
 THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE CITY OF OAKLAND, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:  
 PARCEL 1:  
 THAT PORTION OF LOT 3, BLOCK 26, TRACT NO. 2244, IN THE CITY OF OAKLAND, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, AS PER PLAT RECORDED IN BOOK 20 OF MAPS, PAGES 58 TO 59, INCLUSIVE, RECORDS OF SAID COUNTY.  
 PARCEL 2:  
 THAT PORTION OF LOT 3, BLOCK 26, TRACT NO. 2244, IN THE CITY OF OAKLAND, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, AS PER PLAT RECORDED IN BOOK 20 OF MAPS, PAGES 58 TO 59, INCLUSIVE, RECORDS OF SAID COUNTY.  
 A/P/N: 0236-024-29-0-000 AND 0236-024-30-0-000

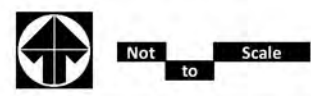
PROJECT DATA

PROJECT ZONING	II (GENERAL INDUSTRIAL)
PROJECT SITE AREA	589,954 SF 13.39 AC
BUILDING AREA	254,227 SF
WAREHOUSE AREA	15,000 SF
MESSENGER	270,227 SF
TOTAL BUILDING AREA	
TOTAL PROJECT LOT COVERAGE	44.79%
TOTAL PROJECT F.A.R.	47.45%
PARKING REQUIRED	30,000 SF OFFICE @ 1,000/SF 1 TO 20,000 SF (117,000 SF) 20,000 SF AND ABOVE (11,000 SF)
TOTAL STALLS PROVIDED	120 STALLS 30 STALLS 117 STALLS 251 STALLS
PARKING PROVIDED	120 STALLS STANDARD STALLS EQUIPPED ACCESS STALLS BY PARKING STALLS FUTURE STALLS WITHIN TRUCK COURT
TOTAL STALLS PROVIDED	120 STALLS 7 STALLS 25 STALLS 84 STALLS 251 STALLS
BICYCLE PARKING	BICYCLE PARKING STALLS 5% OF MOTORIZED VEHICLES (CAL GREEN) 4-BICYCLE STALL SHALL BE DESIGNATED FOR LONG TERM PARKING TOTAL BICYCLE STALLS PROPOSED
TOTAL BICYCLE STALLS PROVIDED	8 STALLS
REQUIRED TRAILER PARKING (1 TRAILER PER 4 DOCK DOORS)	14 TRAILERS
PROVIDED TRAILER PARKING	48 TRAILERS
REQUIRED SITE LANDSCAPE AREA	56,995 SF / 13.01%
PROVIDED SITE LANDSCAPE AREA	72,527 SF OR 12.12%



Source(s): RGA (08-10-2022)

Figure 4



Site Plan

5355 East Airport Drive

## NATIVE AMERICAN HERITAGE COMMISSION

September 8, 2022

Thomas Grahn  
City of Ontario  
303 East B Street  
Ontario, CA 91764

**Re: 2022090006, 5355 East Airport Drive Project, San Bernardino County**

Dear Mr. Grahn:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

**Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.**



CHAIRPERSON  
**Laura Miranda**  
Luiseño

VICE CHAIRPERSON  
**Reginald Pagaling**  
Chumash

PARLIAMENTARIAN  
**Russell Attebery**  
Karuk

SECRETARY  
**Sara Dutschke**  
Miwok

COMMISSIONER  
**William Hungary**  
Paiute/White Mountain  
Apache

COMMISSIONER  
**Isaac Bojorquez**  
Ohlone-Costanoan

COMMISSIONER  
**Buffy McQuillen**  
Yokayo Pomo, Yuki,  
Nomlaki

COMMISSIONER  
**Wayne Nelson**  
Luiseño

COMMISSIONER  
**Stanley Rodriguez**  
Kumeyaay

EXECUTIVE SECRETARY  
**Raymond C. Hitchcock**  
Miwok/Nisenan

**NAHC HEADQUARTERS**  
1550 Harbor Boulevard  
Suite 100  
West Sacramento,  
California 95691  
(916) 373-3710  
[nahc@nahc.ca.gov](mailto:nahc@nahc.ca.gov)  
[NAHC.ca.gov](http://NAHC.ca.gov)



AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

- 1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project:** Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

  - a.** A brief description of the project.
  - b.** The lead agency contact information.
  - c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
  - d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).
- 2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report:** A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subs. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

  - a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).
- 3. Mandatory Topics of Consultation If Requested by a Tribe:** The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

  - a.** Alternatives to the project.
  - b.** Recommended mitigation measures.
  - c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).
- 4. Discretionary Topics of Consultation:** The following topics are discretionary topics of consultation:

  - a.** Type of environmental review necessary.
  - b.** Significance of the tribal cultural resources.
  - c.** Significance of the project's impacts on tribal cultural resources.
  - d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).
- 5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process:** With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).
- 6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document:** If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

  - a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.
  - b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

- 7. Conclusion of Consultation:** Consultation with a tribe shall be considered concluded when either of the following occurs:
- a.** The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
  - b.** A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).
- 8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document:** Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).
- 9. Required Consideration of Feasible Mitigation:** If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).
- 10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:**
- a.** Avoidance and preservation of the resources in place, including, but not limited to:
    - i.** Planning and construction to avoid the resources and protect the cultural and natural context.
    - ii.** Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
  - b.** Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
    - i.** Protecting the cultural character and integrity of the resource.
    - ii.** Protecting the traditional use of the resource.
    - iii.** Protecting the confidentiality of the resource.
  - c.** Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
  - d.** Protecting the resource. (Pub. Resource Code §21084.3 (b)).
  - e.** Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
  - f.** Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).
- 11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource:** An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
- a.** The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
  - b.** The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
  - c.** The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: [http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation\\_CalEPAPDF.pdf](http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf)

## SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: [https://www.opr.ca.gov/docs/09\\_14\\_05\\_Updated\\_Guidelines\\_922.pdf](https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf).

Some of SB 18's provisions include:

1. **Tribal Consultation**: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. **No Statutory Time Limit on SB 18 Tribal Consultation**. There is no statutory time limit on SB 18 tribal consultation.
3. **Confidentiality**: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. **Conclusion of SB 18 Tribal Consultation**: Consultation should be concluded at the point in which:
  - a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
  - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>.

### NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center ([https://ohp.parks.ca.gov/?page\\_id=30331](https://ohp.parks.ca.gov/?page_id=30331)) for an archaeological records search. The records search will determine:
  - a. If part or all of the APE has been previously surveyed for cultural resources.
  - b. If any known cultural resources have already been recorded on or adjacent to the APE.
  - c. If the probability is low, moderate, or high that cultural resources are located in the APE.
  - d. If a survey is required to determine whether previously unrecorded cultural resources are present.
2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
  - b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
  - a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
  - b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.
  
4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
  - a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
  - b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
  - c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: [Cameron.Vela@nahc.ca.gov](mailto:Cameron.Vela@nahc.ca.gov).

Sincerely,

*Cameron Vela*

Cameron Vela  
Cultural Resources Analyst

cc: State Clearinghouse



# South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178  
(909) 396-2000 • [www.aqmd.gov](http://www.aqmd.gov)

SENT VIA E-MAIL:

September 30, 2022

[TGrahn@ontarioca.gov](mailto:TGrahn@ontarioca.gov)

Thomas Grahn, Senior Planner  
City of Ontario  
Planning Department  
303 East "B" Street  
Ontario, California 91764

## **Notice of Preparation of a Draft Environmental Impact Report for the 5355 East Airport Drive (PDEV22-017) (Proposed Project)**

South Coast Air Quality Management District (South Coast AQMD) staff appreciates the opportunity to comment on the above-mentioned document. Our comments are recommendations on the analysis of potential air quality impacts from the Proposed Project that should be included in the Draft Environmental Impact Report (EIR). Please send a copy of the Draft EIR upon its completion and public release directly to South Coast AQMD as copies of the Draft EIR submitted to the State Clearinghouse are not forwarded. **In addition, please send all appendices and technical documents related to the air quality, health risk, and greenhouse gas analyses and electronic versions of all emission calculation spreadsheets, and air quality modeling and health risk assessment input and output files (not PDF files). Any delays in providing all supporting documentation for our review will require additional review time beyond the end of the comment period.**

### **CEQA Air Quality Analysis**

Staff recommends that the Lead Agency use South Coast AQMD's CEQA Air Quality Handbook and website<sup>1</sup> as guidance when preparing the air quality and greenhouse gas analyses. It is also recommended that the Lead Agency use the CalEEMod<sup>2</sup> land use emissions software, which can estimate pollutant emissions from typical land use development and is the only software model maintained by the California Air Pollution Control Officers Association.

South Coast AQMD has developed both regional and localized significance thresholds. South Coast AQMD staff recommends that the Lead Agency quantify criteria pollutant emissions and compare the emissions to South Coast AQMD's CEQA regional pollutant emissions significance thresholds<sup>3</sup> and localized significance thresholds (LSTs)<sup>4</sup> to determine the Proposed Project's air quality impacts. The localized analysis can be conducted by either using the LST screening tables or performing dispersion modeling.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the Proposed Project and all air pollutant sources related to the Proposed Project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of

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<sup>1</sup> South Coast AQMD's CEQA Handbook and other resources for preparing air quality analyses can be found at: <http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook>.

<sup>2</sup> CalEEMod is available free of charge at: [www.caleemod.com](http://www.caleemod.com).

<sup>3</sup> South Coast AQMD's CEQA regional pollutant emissions significance thresholds can be found at: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf>.

<sup>4</sup> South Coast AQMD's guidance for performing a localized air quality analysis can be found at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds>.

heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips, and hauling trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers and air pollution control devices), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, such as sources that generate or attract vehicular trips, should be included in the analysis. Furthermore, emissions from the overlapping construction and operational activities should be combined and compared to South Coast AQMD's regional air quality CEQA *operational* thresholds to determine the level of significance.

If the Proposed Project generates diesel emissions from long-term construction or attracts diesel-fueled vehicular trips, especially heavy-duty diesel-fueled vehicles, it is recommended that the Lead Agency perform a mobile source health risk assessment<sup>5</sup>.

In the event that implementation of the Proposed Project requires a permit from South Coast AQMD, South Coast AQMD should be identified as a Responsible Agency for the Proposed Project in the Draft EIR. The assumptions in the air quality analysis in the EIR will be the basis for evaluating the permit under CEQA and imposing permit conditions and limits. Questions on permits should be directed to South Coast AQMD's Engineering and Permitting staff at (909) 396-3385.

South Coast AQMD staff is concerned about potential public health impacts of siting warehouses within close proximity of sensitive land uses, especially in communities that are already heavily affected by the existing warehouse and truck activities. The South Coast AQMD's Multiple Air Toxics Exposure Study (MATES V), completed in August 2021, concluded that the largest contributor to cancer risk from air pollution is diesel particulate matter (DPM) emissions<sup>6</sup>. According to the MATES V Carcinogenic Risk interactive Map, the area surrounding the Proposed Project has an estimated cancer risk over 600 in one million<sup>7</sup>. Operation of warehouses generates and attracts heavy-duty diesel-fueled trucks that emit DPM. When the health impacts from the Proposed Project are added to those existing impacts, residents living in the communities surrounding the Proposed Project will possibly face an even greater exposure to air pollution and bear a disproportionate burden of increasing health risks.

### **Mitigation Measures**

In the event that the Proposed Project results in significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized to minimize these impacts. Any impacts resulting from mitigation measures must also be analyzed. Several resources to assist the Lead Agency with identifying potential mitigation measures for the Proposed Project include South Coast AQMD's CEQA Air Quality Handbook<sup>1</sup>, South Coast AQMD's Mitigation Monitoring and Reporting Plan for the 2016 Air Quality Management Plan<sup>8</sup>, and Southern California Association of Government's Mitigation Monitoring and Reporting Plan for the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy<sup>9</sup>.

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<sup>5</sup> South Coast AQMD's guidance for performing a mobile source health risk assessment can be found at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis>.

<sup>6</sup> South Coast AQMD. August 2021. *Multiple Air Toxics Exposure Study in the South Coast Air Basin V*. Available at: <http://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-v>.

<sup>7</sup> South Coast AQMD. MATES V Data Visualization Tool. Accessed at: [MATES Data Visualization \(arcgis.com\)](https://www.aqmd.gov/mates-v-data-visualization).

<sup>8</sup> South Coast AQMD's 2016 Air Quality Management Plan can be found at: <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2017/2017-mar3-035.pdf> (starting on page 86).

<sup>9</sup> Southern California Association of Governments' 2020-2045 RTP/SCS can be found at: [https://www.connectsocial.org/Documents/PEIR/certified/Exhibit-A\\_ConnectSoCal\\_PEIR.pdf](https://www.connectsocial.org/Documents/PEIR/certified/Exhibit-A_ConnectSoCal_PEIR.pdf).



Mitigation measures for operational air quality impacts from mobile sources that the Lead Agency should consider in the Draft EIR may include the following:

- Require zero-emissions (ZE) or near-zero emission (NZE) on-road haul trucks such as heavy-duty trucks with natural gas engines that meet the CARB's adopted optional NOx emissions standard at 0.02 grams per brake horsepower-hour (g/bhp-hr), if and when feasible. Given the state's clean truck rules and regulations aiming to accelerate the utilization and market penetration of ZE and NZE trucks such as the Advanced Clean Trucks Rule<sup>10</sup> and the Heavy-Duty Low NOx Omnibus Regulation<sup>11</sup>, ZE and NZE trucks will become increasingly more available to use. The Lead Agency should require a phase-in schedule to incentive the use of these cleaner operating trucks to reduce any significant adverse air quality impacts. South Coast AQMD staff is available to discuss the availability of current and upcoming truck technologies and incentive programs with the Lead Agency. At a minimum, require the use of 2010 model year<sup>12</sup> that meet CARB's 2010 engine emissions standards at 0.01 g/bhp-hr of particulate matter (PM) and 0.20 g/bhp-hr of NOx emissions or newer, cleaner trucks. Include environmental analyses to evaluate and identify sufficient electricity and supportive infrastructures in the Energy and Utilities and Service Systems Sections in the CEQA document, where appropriate. Include the requirement in applicable bid documents, purchase orders, and contracts. Operators shall maintain records of all trucks associated with project construction to document that each truck used meets these emission standards, and make the records available for inspection. The Lead Agency should conduct regular inspections to the maximum extent feasible to ensure compliance.
- Limit the daily number of trucks allowed at the Proposed Project to levels analyzed in the Final CEQA document. If higher daily truck volumes are anticipated to visit the site, the Lead Agency should commit to re-evaluating the Proposed Project through CEQA prior to allowing this higher activity level.
- Provide electric vehicle (EV) charging stations or at a minimum, provide the electrical infrastructure and electrical panels should be appropriately sized. Electrical hookups should be provided for truckers to plug in any onboard auxiliary equipment.

Mitigation measures for operational air quality impacts from other area sources that the Lead Agency should consider in the Draft EIR may include the following:

- Maximize use of solar energy by installing solar energy arrays.
- Use light colored paving and roofing materials.
- Utilize only Energy Star heating, cooling, and lighting devices, and appliances.
- Use of water-based or low VOC cleaning products that go beyond the requirements of South Coast AQMD Rule 1113.

Design considerations for the Proposed Project that the Lead Agency should consider to further reduce air quality and health risk impacts include the following:

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<sup>10</sup> CARB. June 25, 2020. *Advanced Clean Trucks Rule*. Accessed at: <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks>.

<sup>11</sup> CARB has recently passed a variety of new regulations that require new, cleaner heavy-duty truck technology to be sold and used in state. For example, on August 27, 2020, CARB approved the Heavy-Duty Low NOx Omnibus Regulation, which will require all trucks to meet the adopted emission standard of 0.05 g/hp-hr starting with engine model year 2024. Accessed at: <https://ww2.arb.ca.gov/rulemaking/2020/hdomnibuslownox>.

<sup>12</sup> CARB adopted the statewide Truck and Bus Regulation in 2010. The Regulation requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Newer heavier trucks and buses must meet particulate matter filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent. More information on the CARB's Truck and Bus Regulation is available at: <https://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm>.

- Clearly mark truck routes with trailblazer signs, so that trucks will not travel next to or near sensitive land uses (e.g., residences, schools, day care centers, etc.).
- Design the Proposed Project such that truck entrances and exits are not facing sensitive receptors and trucks will not travel past sensitive land uses to enter or leave the Proposed Project site.
- Design the Proposed Project such that any check-in point for trucks is inside the Proposed Project site to ensure that there are no trucks queuing outside.
- Design the Proposed Project to ensure that truck traffic inside the Proposed Project site is as far away as feasible from sensitive receptors.
- Restrict overnight truck parking in sensitive land uses by providing overnight truck parking inside the Proposed Project site.

On May 7, 2021, South Coast AQMD's Governing Board adopted Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program, and Rule 316 – Fees for Rule 2305. Rules 2305 and 316 are new rules that will reduce regional and local emissions of nitrogen oxides (NOx) and particulate matter (PM), including diesel PM. These emission reductions will reduce public health impacts for communities located near warehouses from mobile sources that are associated with warehouse activities. Also, the emission reductions will help the region attain federal and state ambient air quality standards. Rule 2305 applies to owners and operators of warehouses greater than or equal to 100,000 square feet. Under Rule 2305, operators are subject to an annual WAIRE Points Compliance Obligation that is calculated based on the annual number of truck trips to the warehouse. WAIRE Points can be earned by implementing actions in a prescribed menu in Rule 2305, implementing a site-specific custom plan, or paying a mitigation fee. Warehouse owners are only required to submit limited information reports, but they can opt in to earn Points on behalf of their tenants if they so choose because certain actions to reduce emissions may be better achieved at the warehouse development phase, for instance the installation of solar and charging infrastructure. Rule 316 is a companion fee rule for Rule 2305 to allow South Coast AQMD to recover costs associated with Rule 2305 compliance activities. Since the Proposed Project consists of the development of a 270,337 square foot warehouse, the Proposed Project's warehouse owners and operators will be required to comply with Rule 2305 once the warehouse is occupied. Therefore, South Coast AQMD staff recommends that the Lead Agency review South Coast AQMD Rule 2305 to determine the potential WAIRE Points Compliance Obligation for future operators and explore whether additional project requirements and CEQA mitigation measures can be identified and implemented at the Proposed Project that may help future warehouse operators meet their compliance obligation<sup>13</sup>. South Coast AQMD staff is available to answer questions concerning Rule 2305 implementation and compliance by phone or email at (909) 396-3140 or [waire-program@aqmd.gov](mailto:waire-program@aqmd.gov). For implementation guidance documents and compliance and reporting tools, please visit South Coast AQMD's WAIRE Program webpage<sup>14</sup>.

South Coast AQMD staff is available to work with the Lead Agency to ensure that air quality, greenhouse gas, and health risk impacts from the Proposed Project are accurately evaluated and mitigated where feasible. If you have any questions regarding this letter, please contact me at [swangl@aqmd.gov](mailto:swangl@aqmd.gov).

Sincerely,

*Sam Wang*

Sam Wang

Program Supervisor, CEQA IGR

Planning, Rule Development & Area Sources

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<sup>13</sup> South Coast AQMD Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program. Accessed at: <http://www.aqmd.gov/docs/default-source/rule-book/reg-xxiii/r2305.pdf>.

<sup>14</sup> South Coast AQMD WAIRE Program. Accessed at: <http://www.aqmd.gov/waire>.

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SBC220906-09  
Control Number



09/29/2022

**VIA EMAIL ONLY**

Thomas Grahn  
City of Ontario Planning Department  
303 East B Street  
Ontario, CA 91764  
Email: [TGrahn@ontarioca.gov](mailto:TGrahn@ontarioca.gov)

**RE: NOP Comments for 5355 East Airport Drive Project**

Dear Mr. Grahn,

Thank you for providing Californians Allied for a Responsible Economy ("CARE CA") with the opportunity to comment on the Notice of Preparation ("NOP") for the 5355 East Airport Drive Project (the "Project") Draft Environmental Impact Report (DEIR). The Project proposes to demolish all existing on-site structures and construct an approximately 270,337 square foot warehouse facility.

**I. Background on CEQA EIRs**

CEQA advances three related purposes. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a project. 14 Cal. Code Regs. ("Guidelines") § 15002(a)(1). "Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made. Thus, the EIR 'protects not only the environment but also informed self-government.'" *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.

Second, CEQA requires public agencies to avoid or reduce environmental damage when "feasible" by requiring implementation of "environmentally superior" alternatives and all feasible mitigation measures. Guidelines § 15002(a)(2) and (3); *Citizens of Goleta Valley*, 52 Cal.3d at 564. If the project will have a significant effect on the environment, the agency may approve the project only if it finds that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns." Pub. Res. Code § 21081; Guidelines § 15092(b)(2)(A) and (B).

Third, CEQA compels disclosing “to the public the rationale for governmental approval of a project that may significantly impact the environment.” *California Building Industry Assn. v. Bay Area Air Quality Management Dist.* (2015) 62 Cal.4th 369, 382.

Although the courts review an EIR using an “abuse of discretion” standard, “the reviewing court is not to ‘uncritically rely on every study or analysis presented by a project proponent in support of its position.’ A ‘clearly inadequate or unsupported study is entitled to no judicial deference.’” *Berkeley Keep Jets Over the Bay v. Bd. of Port Comm’rs.* (2001) 91 Cal.App.4th 1344, 1355 (quoting *Laurel Heights Improvement Ass’n v. Regents of Univ. of Cal.*, 47 Cal.3d 376, 409 n. 12 (1988)). Substantial evidence in the record must support any foundational assumptions used for the impact analyses in the EIR. *Citizens of Goleta Valley*, 52 Cal.3d at 568 (EIR must contain facts and analysis, not just bare conclusions); *Laurel Heights*, 47 Cal.3d at 392-93 (agency’s conclusions must be supported with substantial evidence).

## **II. General Comments**

After reviewing the documents and information provided, the following comments are being submitted for consideration as part of the EIR process.

1. **Project Alternatives:** The DEIR should study a reasonable range of alternatives. Please include at least two environmentally superior alternatives to the Project, including an Alternative that restricts operations to fewer hours than the expected 24 hours a day, 7 days a week.

2. **Industrial Use:** The DEIR should provide details of any and all proposed future uses of the Project, clearly articulated and quantified. If planned operations are unknown, the DEIR must consider all reasonably foreseeable uses including higher intensity uses such as cold storage and subsequent potential use of transportation refrigeration units (TRUs) during Project operation.

Therefore, the DEIR should study a combination of the five primary logistics-type uses at the site,<sup>1</sup> including providing justification and square footage assumed for each use analyzed to ensure that the unique impacts of each use (i.e., both truck and vehicular trips, air quality, GHG emissions, public health risk and other environmental effects) are comprehensively evaluated.

If the Project will not include cold storage, then the City must include California Air Resources Board (CARB) recommended design measures in the DEIR. CARB recommends requiring contractual language in tenant lease agreements or restrictive covenant over parcel to prohibit use of TRUs.

3. **Air Quality:** The DEIR should study full mitigation of all air quality and GHG impacts that will be caused by the Project. Industrial projects of the proposed size in the region are known to exceed the limits set by SCAQMD’s Air Quality Management Plan. The Project will have high daily volumes of heavy-duty diesel truck traffic and on-site equipment (e.g., backup generators, forklifts and yard tractors) that will pollute the air with toxic diesel emissions and expose the already distressed nearby communities to further air pollution and global climate change. The DEIR should include a mobile source Health Risk Assessment and provide impacts from particulate matter from the diesel trucks on the health of those living, working, and recreating nearby including expected increases in respiratory illnesses, cardiovascular disease, and cancers.

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<sup>1</sup> South Coast Air Quality Management District [SCAQMD], High Cube Warehouse Vehicle Trip Generation Analysis, prepared by Institute of Transportation Engineers, October 2016, p. 3.

If, as expected, the air quality impacts are significant, the DEIR must fully mitigate the impacts to ensure that the Project is in compliance with AQMP in both construction and operational phases. This includes adopting mitigation measures from other jurisdictions such as the Fontana Warehouse Ordinance. A Statement of Overriding Considerations should be considered only after ALL feasible mitigation measures are included in the MMRP.

4. **Mitigation measures:** Mitigation measures must be effective and enforceable. Every effort must be made to incorporate modern technology in the mitigation measures and MMRP. For example, a requirement that all off-road equipment and trucks using the site during construction and operations be zero emission, near-zero emissions or alternative-fueled vehicle would both reduce and/or eliminate air pollution impacts and CO2 emissions.

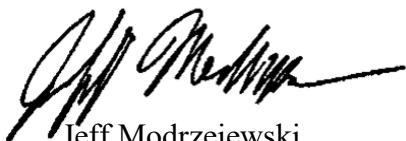
Mitigation measures can also include requirements to install cool roofs to reduce operational energy demand and solar canopies on the parking lot to generate energy, electrification of loading docks and provision of EV charging infrastructure, and measures to reduce urban heat island effect impacts.

### **III. Conclusion**

Thank you for the opportunity to submit NOP comments. CARE CA respectfully requests under CEQA full analysis of all environmental impacts, feasible mitigation, and reasonable alternatives to the Project.

We look forward to reviewing and commenting on subsequent environmental review documents when these documents are released for public review. Please provide all sources and referenced materials when the documents are made available.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff Modrzejewski", with a long horizontal flourish extending to the right.

Jeff Modrzejewski  
*Executive Director*

---

**5355 East Airport Drive**  
**AIR QUALITY IMPACT ANALYSIS**  
**CITY OF ONTARIO**

PREPARED BY:

Haseeb Qureshi  
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Alyssa Barnett  
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AUGUST 30, 2022





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## LIST OF ABBREVIATED TERMS

%	Percent
°F	Degrees Fahrenheit
(1)	Reference
µg/m <sup>3</sup>	Microgram per Cubic Meter
<i>1992 CO Plan</i>	<i>1992 Federal Attainment Plan for Carbon Monoxide</i>
<i>1993 CEQA Handbook</i>	<i>SCAQMD's CEQA Air Quality Handbook (1993)</i>
<i>2016-2040 RTP/SCS</i>	<i>2016-2040 Regional Transportation Plan/Sustainable Communities Strategy</i>
AB 2595	California Clean Air Act
AQIA	Air Quality Impact Analysis
AQMP	Air Quality Management Plan
BACT	Best Available Control Technology
BC	Black Carbon
<i>Brief</i>	<i>Brief of Amicus Curiae by the SCAQMD in the Friant Ranch Case</i>
C <sub>2</sub> Cl <sub>4</sub>	Perchloroethylene
C <sub>4</sub> H <sub>6</sub>	1,3-butadiene
C <sub>6</sub> H <sub>6</sub>	Benzene
C <sub>2</sub> H <sub>3</sub> Cl	Vinyl Chloride
C <sub>2</sub> H <sub>4</sub> O	Acetaldehyde
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CALGreen	California Green Building Standards Code
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
<i>CEQA Guidelines</i>	<i>2019 CEQA Statute and Guidelines</i>
CH <sub>2</sub> O	Formaldehyde
City	City of Ontario
CO	Carbon Monoxide
COH	Coefficient of Haze

COHb	Carboxyhemoglobin
Cr(VI)	Chromium
CTP	Clean Truck Program
DPM	Diesel Particulate Matter
DRRP	Diesel Risk Reduction Plan
EC	Elemental Carbon
EIR	Environmental Impact Report
EMFAC	Emissions FACTor Model
EPA	Environmental Protection Agency
ETW	Equivalent Test Weight
EV	Electric Vehicle
GHG	Greenhouse Gas
GVWR	Gross Vehicle Weight Rating
H <sub>2</sub> S	Hydrogen Sulfide
HDT	Heavy-Duty Trucks
HHDT	Heavy-Heavy-Duty Trucks
HI	Hazard Index
I-10	Interstate 10
hp	Horsepower
lbs	Pounds
lbs/day	Pounds Per Day
LDA	Light Duty Auto
LDT1/LDT2	Light-Duty Trucks
LHDT1/LHDT2	Light-Heavy-Duty Trucks
LST	Localized Significance Threshold
<i>LST Methodology</i>	<i>Final Localized Significance Threshold Methodology</i>
MATES	Multiple Air Toxics Exposure Study
MCY	Motorcycles
MDV	Medium-Duty Vehicles
MHDT	Medium-Heavy-Duty Trucks
MICR	Maximum Individual Cancer Risk
MM	Mitigation Measures
mph	Miles Per Hour
MWELo	California Department of Water Resources' Model Water Efficient
N <sub>2</sub>	Nitrogen
N <sub>2</sub> O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards

NO	Nitric Oxide
NO <sub>2</sub>	Nitrogen Dioxide
NO <sub>x</sub>	Nitrogen Oxides
O <sub>2</sub>	Oxygen
O <sub>3</sub>	Ozone
O <sub>2</sub> Deficiency	Chronic Hypoxemia
OBD-II	On-Board Diagnostic
ODC	Ozone Depleting Compounds
ONT	Ontario International Airport
Pb	Lead
PM	Particulate Matter
PM <sub>10</sub>	Particulate Matter 10 microns in diameter or less
PM <sub>2.5</sub>	Particulate Matter 2.5 microns in diameter or less
POLA	Port of Los Angeles
POLB	Port of Long Beach
ppm	Parts Per Million
Project	5355 East Airport Drive
RECLAIM	Regional Clean Air Incentives Market
RFG-2	Reformulated Gasoline Regulation
ROG	Reactive Organic Gases
SB	Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
sf	Square Feet
SIPs	State Implementation Plans
SO <sub>2</sub>	Sulfur Dioxide
SO <sub>4</sub>	Sulfates
SO <sub>x</sub>	Sulfur Oxides
CA-60	California State Route 60
SRA	Source Receptor Area
TAC	Toxic Air Contaminant
Title 24	California Building Code
TITLE I	Non-Attainment Provisions
TITLE II	Mobile Sources Provisions
UFP	Ultrafine Particles
URBEMIS	URBan EMISsions
VMT	Vehicle Miles Traveled

VOC  
vph

Volatile Organic Compounds  
Vehicles Per Hour

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## EXECUTIVE SUMMARY

### ES.1 SUMMARY OF FINDINGS

The results of this *5355 East Airport Drive Air Quality Impact Analysis* (AQIA) are summarized below based on the significance criteria in Section 4 of this report consistent with Appendix G of the *California Environmental Quality Act (CEQA) Guidelines (CEQA Guidelines)* (1). Table ES-1 shows the findings of significance for each potential air quality impact under CEQA before and after any required mitigation measures (MM) described below.

**TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS**

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
Regional Construction Emissions	4.4	<i>Less Than Significant</i>	<i>n/a</i>
Localized Construction Emissions	4.7	<i>Less Than Significant</i>	<i>n/a</i>
Regional Operational Emissions	4.5	<i>Less Than Significant</i>	<i>n/a</i>
Localized Operational Emissions	4.8	<i>Less Than Significant</i>	<i>n/a</i>
CO "Hot Spot" Analysis	4.9	<i>Less Than Significant</i>	<i>n/a</i>
Air Quality Management Plan	4.10	<i>Less Than Significant</i>	<i>n/a</i>
Sensitive Receptors	4.11	<i>Less Than Significant</i>	<i>n/a</i>
Odors	4.12	<i>Less Than Significant</i>	<i>n/a</i>
Cumulative Impacts	4.13	<i>Less Than Significant</i>	<i>n/a</i>

### ES.2 REGULATORY REQUIREMENTS

There are numerous requirements that development projects must comply with by law, and that were put in place by federal, State, and local regulatory agencies for the improvement of air quality.

Any operation or activity that might cause the emission of any smoke, fly ash, dust, fumes, vapors, gases, or other forms of air pollution, which can cause damage to human health, vegetation, or



other forms of property, or can cause excessive soiling on any other parcel shall conform to the requirements of the South Coast Air Quality Management District (SCAQMD).

## **SCAQMD RULES**

SCAQMD Rules that are currently applicable during construction activity for this Project are described below.

### **SCAQMD RULE 402**

A person shall not discharge from any source whatsoever such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any such persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule do not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

**Odor Emissions.** All uses shall be operated in a manner such that no offensive odor is perceptible at or beyond the property line of that use.

### **SCAQMD RULE 403**

This rule is intended to reduce the amount of particulate matter (PM) entrained in the ambient air as a result of anthropogenic (human-made) fugitive dust sources by requiring actions to prevent and reduce fugitive dust emissions. Rule 403 applies to any activity or human-made condition capable of generating fugitive dust and requires best available control measures to be applied to earth moving and grading activities.

**Dust Control, Operations.** Any operation or activity that might cause the emission of any smoke, fly ash, dust, fumes, vapors, gases, or other forms of air pollution, which can cause damage to human health, vegetation, or other forms of property, or can cause excessive soiling on any other parcel, shall conform to the requirements of the SCAQMD.

### **SCAQMD RULE 1113**

This rule serves to limit the Volatile Organic Compound (VOC) content of architectural coatings used on projects in the SCAQMD. Any person who supplies, sells, offers for sale, or manufactures any architectural coating for use on projects.

### **SCAQMD RULE 1301**

This rule is intended to provide that pre-construction review requirements to ensure that new or relocated facilities do not interfere with progress in attainment of the National Ambient Air Quality Standards (NAAQS), while future economic growth within the SCAQMD is not unnecessarily restricted. The specific air quality goal is to achieve no net increases from new or modified permitted sources of nonattainment air contaminants or their precursors. Rule 1301 also limits emission increases of ammonia, and Ozone Depleting Compounds (ODCs) from new, modified or relocated facilities by requiring the use of Best Available Control Technology (BACT).

### **SCAQMD RULE 1401**

A person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any 1 hour that is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart, as published by the United States (U.S.) Bureau of Mines.

### **SCAQMD RULE 2305**

The SCAQMD adopted Rule 2305, the Warehouse Indirect Source Rule, on May 7, 2021. Owners and operators associated with warehouses 100,000 square feet (sf) or larger are required to directly reduce nitrogen oxides (NO<sub>x</sub>) and particulate matter emissions, or to otherwise facilitate emission and exposure reductions of these pollutants in nearby communities.

Although the Project would comply with the above regulatory requirements, it should be noted that there is no way to quantify these reductions in the California Emissions Estimator Model (CalEEMod). The two most pertinent regulatory requirements that could be modeled, are Rule 403 (Fugitive Dust) (2) and Rule 1113 (Architectural Coatings) (3). Because they are required by law, credit for Rule 403 and Rule 1113 have been taken in the analysis.

### **CITY OF ONTARIO GENERAL PLAN**

Under the draft City of Ontario General Plan Update, construction activities associated with future developments accommodated under the general plan would require the use of construction equipment meeting at least Tier 4 Interim exhaust emission limits. As such, the proposed Project will utilize equipment meeting at least Tier 4 Interim standards.

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# **1 INTRODUCTION**

This report presents the results of the AQIA prepared by Urban Crossroads, Inc., for the proposed 5355 East Airport Drive (Project). The purpose of this AQIA is to evaluate the potential impacts to air quality associated with construction and operation of the Project and recommend measures to mitigate impacts considered potentially significant in comparison to thresholds established by the SCAQMD.

## **1.1 SITE LOCATION**

The proposed Project is located at 5355 East Airport Drive in the City of Ontario as shown on Exhibit 1-A. The Project is located approximately 2.7 miles east of the Ontario International Airport (ONT).

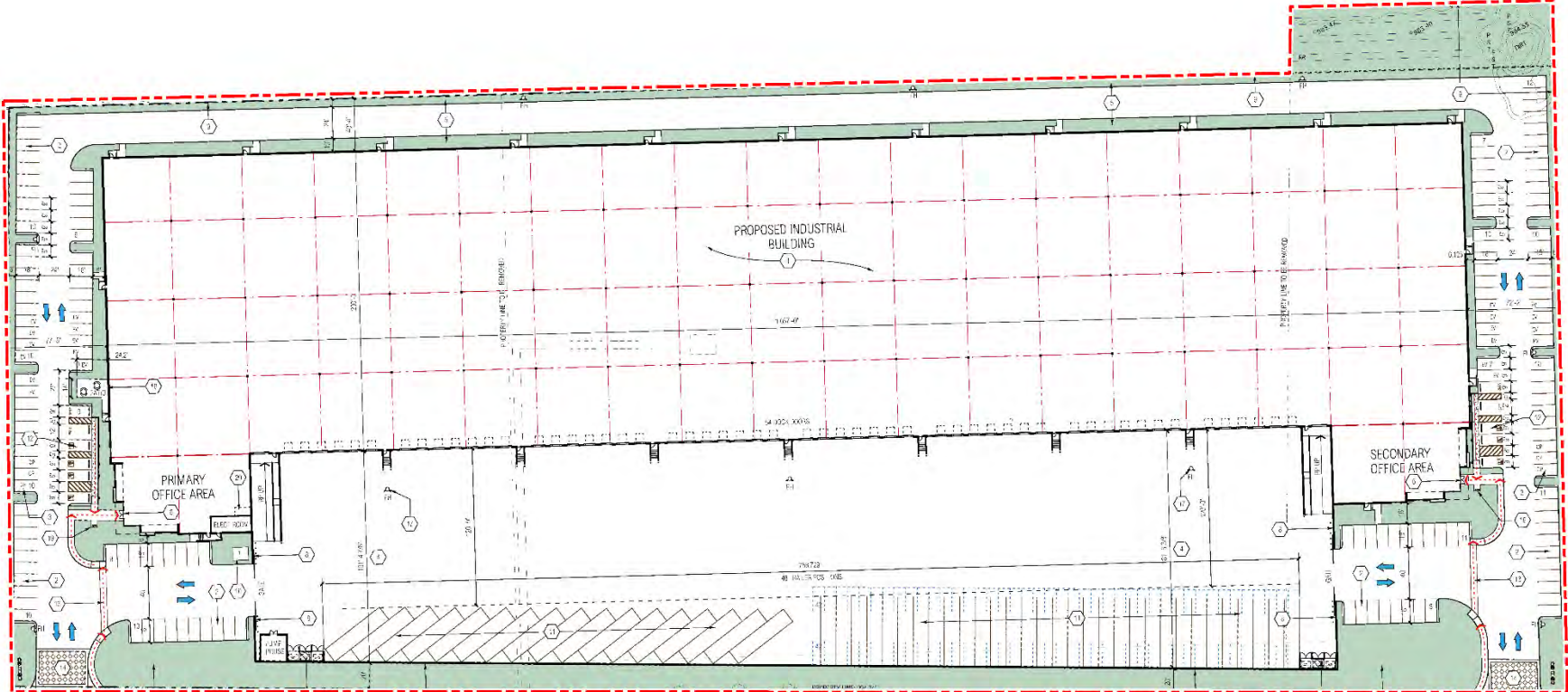
## **1.2 PROJECT DESCRIPTION**

The Project is proposed to consist of a single 270,337-square-foot (sf) industrial building. This analysis assumes up to 27,034-sf high-cube cold storage use (10% of the total industrial building sf) and 243,303-sf of warehouse use (90% of total industrial building). The site plan for the proposed Project is shown on Exhibit 1-B.

EXHIBIT 1-A: LOCATION MAP



EXHIBIT 1-B: SITE PLAN



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## 2 AIR QUALITY SETTING

This section provides an overview of the existing air quality conditions in the Project area and region.

### 2.1 SOUTH COAST AIR BASIN

The Project site is located in the South Coast Air Basin (SCAB) within the jurisdiction of SCAQMD (4). The SCAQMD was created by the 1977 Lewis-Presley Air Quality Management Act, which merged four county air pollution control bodies into one regional district. Under the Act, the SCAQMD is responsible for bringing air quality in areas under its jurisdiction into conformity with federal and state air quality standards. As previously stated, the Project site is located within the SCAB, a 6,745-square mile subregion of the SCAQMD, which includes the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County.

The SCAB is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east, and the San Diego Air Basin to the south.

### 2.2 REGIONAL CLIMATE

The regional climate has a substantial influence on air quality in the SCAB. In addition, the temperature, wind, humidity, precipitation, and amount of sunshine influence the air quality.

The annual average temperatures throughout the SCAB vary from the low to middle 60s degrees Fahrenheit (°F). Due to a decreased marine influence, the eastern portion of the SCAB shows greater variability in average annual minimum and maximum temperatures. January is the coldest month throughout the SCAB, with average minimum temperatures of 47°F in downtown Los Angeles and 36°F in San Bernardino. All portions of the SCAB have recorded maximum temperatures above 100°F.

Although the climate of the SCAB can be characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of SCAB climate. Humidity restricts visibility in the SCAB, and the conversion of sulfur dioxide (SO<sub>2</sub>) to sulfates (SO<sub>4</sub>) is heightened in air with high relative humidity. The marine layer provides an environment for that conversion process, especially during the spring and summer months. The annual average relative humidity within the SCAB is 71 percent (%) along the coast and 59% inland. Since the ocean effect is dominant, periods of heavy early morning fog are frequent and low stratus clouds are a characteristic feature. These effects decrease with distance from the coast.

More than 90% of the SCAB's rainfall occurs from November through April. The annual average rainfall varies from approximately nine inches in Riverside to fourteen inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the SCAB with frequency being higher near the coast.



Due to its generally clear weather, about three-quarters of available sunshine is received in the SCAB. The remaining one-quarter is absorbed by clouds. The ultraviolet portion of this abundant radiation is a key factor in photochemical reactions. On the shortest day of the year, there are approximately 10 hours of possible sunshine, and on the longest day of the year, there are approximately 14½ hours of possible sunshine.

The importance of wind to air pollution is considerable. The direction and speed of the wind determines the horizontal dispersion and transport of the air pollutants. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed “Santa Anas” each year. During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind. Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over southern California. Nighttime drainage begins with the radiational cooling of the mountain slopes. Heavy, cool air descends the slopes and flows through the mountain passes and canyons as it follows the lowering terrain toward the ocean. Another characteristic wind regime in the SCAB is the “Catalina Eddy,” a low level cyclonic (counterclockwise) flow centered over Santa Catalina Island which results in an offshore flow to the southwest. On most spring and summer days, some indication of an eddy is apparent in coastal sections.

In the SCAB, there are two distinct temperature inversion structures that control vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an impervious lid to pollutants over the entire SCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level.

A second inversion-type forms in conjunction with the drainage of cool air off the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter, when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as nitrogen oxides (NO<sub>x</sub>) and carbon monoxide (CO) from vehicles, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline.

### **2.3 WIND PATTERNS AND PROJECT LOCATION**

The distinctive climate of the Project area and the SCAB is determined by its terrain and geographical location. The SCAB is located in a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter.

Wind patterns across the south coastal region are characterized by westerly and southwesterly onshore winds during the day and easterly or northeasterly breezes at night. Winds are characteristically light although the speed is somewhat greater during the dry summer months than during the rainy winter season.

## 2.4 CRITERIA POLLUTANTS

Criteria pollutants are pollutants that are regulated through the development of human health based and/or environmentally based criteria for setting permissible levels. Criteria pollutants, their typical sources, and health effects are identified below (5):

**TABLE 2-1: CRITERIA POLLUTANTS**

Criteria Pollutant	Description	Sources	Health Effects
CO	CO is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest during the winter morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone (O <sub>3</sub> ), motor vehicles operating at slow speeds are the primary source of CO in the SCAB. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections.	Any source that burns fuel such as automobiles, trucks, heavy construction equipment, farming equipment and residential heating.	Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of decreased oxygen (O <sub>2</sub> ) supply to the heart. Inhaled CO has no direct toxic effect on the lungs but exerts its effect on tissues by interfering with O <sub>2</sub> transport and competing with O <sub>2</sub> to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for O <sub>2</sub> supply can be adversely affected by exposure to CO. Individuals most at risk include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic hypoxemia (O <sub>2</sub> deficiency) as seen at high altitudes.
SO <sub>2</sub>	SO <sub>2</sub> is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant	Coal or oil burning power plants and industries,	A few minutes of exposure to low levels of SO <sub>2</sub> can result in airway constriction in some

Criteria Pollutant	Description	Sources	Health Effects
	<p>mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO<sub>2</sub> oxidizes in the atmosphere, it forms SO<sub>4</sub>. Collectively, these pollutants are referred to as sulfur oxides (SO<sub>x</sub>).</p>	<p>refineries, diesel engines</p>	<p>asthmatics, all of whom are sensitive to its effects. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, are observed after acute exposure to SO<sub>2</sub>. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO<sub>2</sub>.</p> <p>Animal studies suggest that despite SO<sub>2</sub> being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract.</p> <p>Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO<sub>2</sub> levels. In these studies, efforts to separate the effects of SO<sub>2</sub> from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically, or one pollutant alone is the predominant factor.</p>
NO <sub>x</sub>	<p>NO<sub>x</sub> consist of nitric oxide (NO), nitrogen dioxide (NO<sub>2</sub>) and nitrous oxide (N<sub>2</sub>O) and are formed when nitrogen (N<sub>2</sub>) combines with O<sub>2</sub>. Their lifespan in the atmosphere ranges from</p>	<p>Any source that burns fuel such as automobiles, trucks, heavy construction equipment, farming</p>	<p>Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is</p>

Criteria Pollutant	Description	Sources	Health Effects
	<p>one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. NO<sub>x</sub> is typically created during combustion processes and are major contributors to smog formation and acid deposition. NO<sub>2</sub> is a criteria air pollutant and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere and reduced visibility. Of the seven types of nitrogen oxide compounds, NO<sub>2</sub> is the most abundant in the atmosphere. As ambient concentrations of NO<sub>2</sub> are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO<sub>2</sub> than those indicated by regional monitoring station.</p>	<p>equipment and residential heating.</p>	<p>associated with long-term exposure to NO<sub>2</sub> at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO<sub>2</sub> in healthy subjects. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups.</p> <p>In animals, exposure to levels of NO<sub>2</sub> considerably higher than ambient concentrations result in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of O<sub>3</sub> exposure increases when animals are exposed to a combination of O<sub>3</sub> and NO<sub>2</sub>.</p>
O <sub>3</sub>	<p>O<sub>3</sub> is a highly reactive and unstable gas that is formed when VOCs and NO<sub>x</sub>, both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. O<sub>3</sub> concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.</p>	<p>Formed when reactive organic gases (ROG) and NO<sub>x</sub> react in the presence of sunlight. ROG sources include any source that burns fuels, (e.g., gasoline, natural gas, wood, oil) solvents, petroleum processing and</p>	<p>Individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible sub-groups for O<sub>3</sub> effects. Short-term exposure (lasting for a few hours) to O<sub>3</sub> at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased</p>

Criteria Pollutant	Description	Sources	Health Effects
		storage and pesticides.	<p>susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Elevated O<sub>3</sub> levels are associated with increased school absences. In recent years, a correlation between elevated ambient O<sub>3</sub> levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in multiple outdoor sports and live in communities with high O<sub>3</sub> levels.</p> <p>O<sub>3</sub> exposure under exercising conditions is known to increase the severity of the responses described above. Animal studies suggest that exposure to a combination of pollutants that includes O<sub>3</sub> may be more toxic than exposure to O<sub>3</sub> alone. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes.</p>
Particulate Matter	PM <sub>10</sub> : A major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. Particulate matter pollution is a major cause of reduce visibility (haze) which is caused by the scattering of light and consequently the significant reduction air clarity. The size of the particles (10 microns or smaller, about 0.0004 inches or less) allows them to easily enter the lungs where they may be	Sources of PM <sub>10</sub> include road dust, windblown dust and construction. Also formed from other pollutants (acid rain, NO <sub>x</sub> , SO <sub>x</sub> , organics). Incomplete combustion of any fuel.  PM <sub>2.5</sub> comes from	A consistent correlation between elevated ambient fine particulate matter (PM <sub>10</sub> and PM <sub>2.5</sub> ) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. In

Criteria Pollutant	Description	Sources	Health Effects
	<p>deposited, resulting in adverse health effects. Additionally, it should be noted that PM<sub>10</sub> is considered a criteria air pollutant.</p> <p>PM<sub>2.5</sub>: A similar air pollutant to PM<sub>10</sub> consisting of tiny solid or liquid particles which are 2.5 microns or smaller (which is often referred to as fine particles). These particles are formed in the atmosphere from primary gaseous emissions that include SO<sub>4</sub> formed from SO<sub>2</sub> release from power plants and industrial facilities and nitrates that are formed from NO<sub>x</sub> release from power plants, automobiles, and other types of combustion sources. The chemical composition of fine particles highly depends on location, time of year, and weather conditions. PM<sub>2.5</sub> is a criteria air pollutant.</p>	<p>fuel combustion in motor vehicles, equipment, and industrial sources, residential and agricultural burning. Also formed from reaction of other pollutants (acid rain, NO<sub>x</sub>, SO<sub>x</sub>, organics).</p>	<p>recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in lifespan, and an increased mortality from lung cancer.</p> <p>Daily fluctuations in PM<sub>2.5</sub> concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to school and kindergarten absences, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long term exposure to particulate matter.</p> <p>The elderly, people with pre-existing respiratory or cardiovascular disease, and children appear to be more susceptible to the effects of high levels of PM<sub>10</sub> and PM<sub>2.5</sub>.</p>
VOC	<p>VOCs are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form O<sub>3</sub> to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the</p>	<p>Organic chemicals are widely used as ingredients in household products. Paints, varnishes, and wax all contain organic solvents, as do many cleaning, disinfecting, cosmetic, degreasing and hobby products. Fuels are made up of organic chemicals. All of these products can release organic</p>	<p>Breathing VOCs can irritate the eyes, nose, and throat, can cause difficulty breathing and nausea, and can damage the central nervous system as well as other organs. Some VOCs can cause cancer. Not all VOCs have all these health effects, though many have several.</p>

Criteria Pollutant	Description	Sources	Health Effects
	solvents used in paints. Exceptions to the VOC designation include CO, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are a criteria pollutant since they are a precursor to O <sub>3</sub> , which is a criteria pollutant. The terms VOC and ROG (see below) interchangeably.	compounds while you are using them, and, to some degree, when they are stored.	
ROG	Similar to VOC, ROG are also precursors in forming O <sub>3</sub> and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and NO <sub>x</sub> react in the presence of sunlight. ROG are a criteria pollutant since they are a precursor to O <sub>3</sub> , which is a criteria pollutant. The terms ROG and VOC (see previous) interchangeably.	Sources similar to VOCs.	Health effects similar to VOCs.
Lead (Pb)	Pb is a heavy metal that is highly persistent in the environment and is considered a criteria pollutant. In the past, the primary source of Pb in the air was emissions from vehicles burning leaded gasoline. The major sources of Pb emissions are ore and metals processing, particularly Pb smelters, and piston-engine aircraft operating on leaded aviation gasoline. Other stationary sources include waste incinerators, utilities, and lead-acid battery manufacturers. It should be noted that the Project does not include operational activities such as metal processing or Pb acid battery manufacturing. As such, the Project is not anticipated to	Metal smelters, resource recovery, leaded gasoline, deterioration of Pb paint.	Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. Exposure to low levels of Pb can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased Pb levels are associated with increased blood pressure.  Pb poisoning can cause anemia, lethargy, seizures, and death; although it appears that there are no direct effects of Pb on the respiratory system. Pb can be

Criteria Pollutant	Description	Sources	Health Effects
	generate a quantifiable amount of Pb emissions.		stored in the bone from early age environmental exposure, and elevated blood Pb levels can occur due to breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland) and osteoporosis (breakdown of bony tissue). Fetuses and breast-fed babies can be exposed to higher levels of Pb because of previous environmental Pb exposure of their mothers.
Odor	Odor means the perception experienced by a person when one or more chemical substances in the air come into contact with the human olfactory nerves (6).	Odors can come from many sources including animals, human activities, industry, natures, and vehicles.	Offensive odors can potentially affect human health in several ways. First, odorant compounds can irritate the eye, nose, and throat, which can reduce respiratory volume. Second, studies have shown that the VOCs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. Finally, unpleasant odors can trigger memories or attitudes linked to unpleasant odors, causing cognitive and emotional effects such as stress.



## 2.5 EXISTING AIR QUALITY

Existing air quality is measured at established SCAQMD air quality monitoring stations. Monitored air quality is evaluated in the context of ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect are shown in Table 2-2 (7).

The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the state and federal standards. At the time of this AQIA, the most recent state and federal standards were updated by CARB on May ,4 2016 and are presented in Table 2-2. The air quality in a region is considered to be in attainment by the state if the measured ambient air pollutant levels for O<sub>3</sub>, CO (except 8-hour Lake Tahoe), SO<sub>2</sub> (1 and 24 hour), NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> are not to be exceeded. All others are not to be equaled or exceeded. It should be noted that the three-year period is presented for informational purposes and is not the basis for how the State assigns attainment status. Attainment status for a pollutant means that the SCAQMD meets the standards set by the EPA or the California EPA (CalEPA). Conversely, nonattainment means that an area has monitored air quality that does not meet the NAAQS or CAAQS standards. In order to improve air quality in nonattainment areas, a State Implementation Plan (SIP) is drafted by CARB. The SIP outlines the measures that the state will take to improve air quality. Once nonattainment areas meet the standards and additional redesignation requirements, the EPA will designate the area as a maintenance area (8).

TABLE 2-2: AMBIENT AIR QUALITY STANDARDS (1 OF 2)

Ambient Air Quality Standards						
Pollutant	Averaging Time	California Standards <sup>1</sup>		National Standards <sup>2</sup>		
		Concentration <sup>3</sup>	Method <sup>4</sup>	Primary <sup>3,5</sup>	Secondary <sup>3,6</sup>	Method <sup>7</sup>
Ozone (O <sub>3</sub> ) <sup>8</sup>	1 Hour	0.09 ppm (180 µg/m <sup>3</sup> )	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m <sup>3</sup> )		0.070 ppm (137 µg/m <sup>3</sup> )		
Respirable Particulate Matter (PM <sub>10</sub> ) <sup>9</sup>	24 Hour	50 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	150 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>		—		
Fine Particulate Matter (PM <sub>2.5</sub> ) <sup>9</sup>	24 Hour	—	—	35 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	12.0 µg/m <sup>3</sup>		
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m <sup>3</sup> )	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m <sup>3</sup> )	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m <sup>3</sup> )		9 ppm (10 mg/m <sup>3</sup> )	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m <sup>3</sup> )		—	—	
Nitrogen Dioxide (NO <sub>2</sub> ) <sup>10</sup>	1 Hour	0.18 ppm (339 µg/m <sup>3</sup> )	Gas Phase Chemiluminescence	100 ppb (188 µg/m <sup>3</sup> )	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m <sup>3</sup> )		0.053 ppm (100 µg/m <sup>3</sup> )	Same as Primary Standard	
Sulfur Dioxide (SO <sub>2</sub> ) <sup>11</sup>	1 Hour	0.25 ppm (655 µg/m <sup>3</sup> )	Ultraviolet Fluorescence	75 ppb (196 µg/m <sup>3</sup> )	—	Ultraviolet Fluorescence; Spectrophotometry (Parosanaline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m <sup>3</sup> )	
	24 Hour	0.04 ppm (105 µg/m <sup>3</sup> )		0.14 ppm (for certain areas) <sup>11</sup>	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) <sup>11</sup>	—	
Lead <sup>12,13</sup>	30 Day Average	1.5 µg/m <sup>3</sup>	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m <sup>3</sup> (for certain areas) <sup>12</sup>	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m <sup>3</sup>		
Visibility Reducing Particles <sup>14</sup>	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	<b>No National Standards</b>		
Sulfates	24 Hour	25 µg/m <sup>3</sup>	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m <sup>3</sup> )	Ultraviolet Fluorescence			
Vinyl Chloride <sup>12</sup>	24 Hour	0.01 ppm (26 µg/m <sup>3</sup> )	Gas Chromatography			

See footnotes on next page ...

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TABLE 2-2: AMBIENT AIR QUALITY STANDARDS (2 OF 2)

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above  $150 \mu\text{g}/\text{m}^3$  is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of  $25^\circ\text{C}$  and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of  $25^\circ\text{C}$  and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from  $15 \mu\text{g}/\text{m}^3$  to  $12.0 \mu\text{g}/\text{m}^3$ . The existing national 24-hour PM2.5 standards (primary and secondary) were retained at  $35 \mu\text{g}/\text{m}^3$ , as was the annual secondary standard of  $15 \mu\text{g}/\text{m}^3$ . The existing 24-hour PM10 standards (primary and secondary) of  $150 \mu\text{g}/\text{m}^3$  also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
11. On June 2, 2010, a new 1-hour  $\text{SO}_2$  standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971  $\text{SO}_2$  national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.  
Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard ( $1.5 \mu\text{g}/\text{m}^3$  as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

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## 2.6 REGIONAL AIR QUALITY

Air pollution contributes to a wide variety of adverse health effects. The EPA has established NAAQS for six of the most common air pollutants: CO, Pb, O<sub>3</sub>, particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), NO<sub>2</sub>, and SO<sub>2</sub> which are known as criteria pollutants. The SCAQMD monitors levels of various criteria pollutants at 37 permanent monitoring stations and 5 single-pollutant source Pb air monitoring sites throughout the air district (9). On January 5, 2021, CARB posted the 2020 amendments to the state and national area designations. See Table 2-3 for attainment designations for the SCAB (10). Appendix 2.1 provides geographic representation of the state and federal attainment status for applicable criteria pollutants within the SCAB.

**TABLE 2-3: ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN THE SCAB**

Criteria Pollutant	State Designation	Federal Designation
O <sub>3</sub> – 1-hour standard	Nonattainment	--
O <sub>3</sub> – 8-hour standard	Nonattainment	Nonattainment
PM <sub>10</sub>	Nonattainment	Attainment
PM <sub>2.5</sub>	Nonattainment	Nonattainment
CO	Attainment	Unclassifiable/Attainment
NO <sub>2</sub>	Attainment	Unclassifiable/Attainment
SO <sub>2</sub>	Attainment	Unclassifiable/Attainment
Pb <sup>1</sup>	Attainment	Unclassifiable/Attainment

Note: See Appendix 2.1 for a detailed map of State/National Area Designations within the SCAB

-- = The national 1-hour O<sub>3</sub> standard was revoked effective June 15, 2005.

## 2.7 LOCAL AIR QUALITY

The SCAQMD has designated general forecast areas and air monitoring areas (referred to as Source Receptor Areas [SRA]) throughout the district in order to provide Southern California residents about the air quality conditions. The Project site is located within SRA 33. Within SRA 33, the Interstate 10 (I-10) Near Road and California State Route (CA-60) Near Road monitoring stations are located approximately 0.6 miles northeast and 5.3 miles southwest of the Project site, respectively. These stations report air quality statistics for CO, NO<sub>2</sub>, and PM<sub>2.5</sub>. It should be noted that these monitoring station do not provide data for O<sub>3</sub> or PM<sub>10</sub>. As such, the next nearest monitoring station will be utilized. Data for O<sub>3</sub> or PM<sub>10</sub> was obtained from the Central San Bernardino Valley 1 monitoring station, located in SRA 34, approximately 3.5 miles northeast of the Project site. It should be noted that data from Central San Bernardino Valley 1 monitoring station were utilized in lieu of the I-10 Near Road and CA-60 Near Road monitoring stations only in instances where data was not available.

The most recent three (3) years of data available is shown on Table 2-4 and identifies the number of days ambient air quality standards were exceeded for the study area, which is considered to

<sup>1</sup> The Federal nonattainment designation for lead is only applicable towards the Los Angeles County portion of the SCAB.

be representative of the local air quality at the Project site. Data for O<sub>3</sub>, CO, NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> for 2018 through 2020 was obtained from the SCAQMD Air Quality Data Tables (11). Additionally, data for SO<sub>2</sub> has been omitted as attainment is regularly met in the SCAB and few monitoring stations measure SO<sub>2</sub> concentrations.

**TABLE 2-4: PROJECT AREA AIR QUALITY MONITORING SUMMARY 2018-2020**

Pollutant	Standard	Year		
		2018	2019	2020
O <sub>3</sub>				
Maximum Federal 1-Hour Concentration (ppm)		0.141	0.124	0.151
Maximum Federal 8-Hour Concentration (ppm)		0.111	0.109	0.111
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	38	41	56
Number of Days Exceeding State/Federal 8-Hour Standard	> 0.070 ppm	69	67	89
CO				
Maximum Federal 1-Hour Concentration	> 35 ppm	1.6	1.5	1.5
Maximum Federal 8-Hour Concentration	> 20 ppm	1.3	1.1	1.2
NO <sub>2</sub>				
Maximum Federal 1-Hour Concentration	> 0.100 ppm	0.088	0.086	0.094
Annual Federal Standard Design Value		0.027	0.028	0.029
PM <sub>10</sub>				
Maximum Federal 24-Hour Concentration (µg/m <sup>3</sup> )	> 150 µg/m <sup>3</sup>	64	88	61
Annual Federal Arithmetic Mean (µg/m <sup>3</sup> )		34.1	34.8	35.8
Number of Days Exceeding Federal 24-Hour Standard	> 150 µg/m <sup>3</sup>	0	0	0
Number of Days Exceeding State 24-Hour Standard	> 50 µg/m <sup>3</sup>	9	12	6
PM <sub>2.5</sub>				
Maximum Federal 24-Hour Concentration (µg/m <sup>3</sup> )	> 35 µg/m <sup>3</sup>	47.90	41.30	53.10
Annual Federal Arithmetic Mean (µg/m <sup>3</sup> )	> 12 µg/m <sup>3</sup>	14.31	12.70	14.36
Number of Days Exceeding Federal 24-Hour Standard	> 35 µg/m <sup>3</sup>	5	5	4

ppm = Parts Per Million

µg/m<sup>3</sup> = Microgram per Cubic Meter

Source: Data for O<sub>3</sub>, CO, NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> was obtained from SCAQMD Air Quality Data Tables.

## 2.8 REGULATORY BACKGROUND

### 2.8.1 FEDERAL REGULATIONS

The EPA is responsible for setting and enforcing the NAAQS for O<sub>3</sub>, CO, NO<sub>x</sub>, SO<sub>2</sub>, PM<sub>10</sub>, and Pb (12). The EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of CARB.

The Federal Clean Air Act (CAA) was first enacted in 1955 and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes the federal air quality standards, the NAAQS, and specifies future dates for achieving compliance (13). The CAA also mandates that states submit and implement SIPs for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met.

The 1990 amendments to the CAA that identify specific emission reduction goals for areas not meeting the NAAQS require a demonstration of reasonable further progress toward attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions) (14) (15). Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants O<sub>3</sub>, NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, CO, PM<sub>2.5</sub>, and Pb. The NAAQS were amended in July 1997 to include an additional standard for O<sub>3</sub> and to adopt a NAAQS for PM<sub>2.5</sub>. Table 2-3 (previously presented) provides the NAAQS within the SCAB.

Mobile source emissions are regulated in accordance with Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and NO<sub>x</sub>. NO<sub>x</sub> is a collective term that includes all forms of NO<sub>x</sub> which are emitted as byproducts of the combustion process.

## **2.8.2 CALIFORNIA REGULATIONS**

### **CARB**

CARB, which became part of CalEPA in 1991, is responsible for ensuring implementation of the California Clean Air Act (AB 2595), responding to the federal CAA, and for regulating emissions from consumer products and motor vehicles. AB 2595 mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the state ambient air quality standards by the earliest practical date. CARB established the CAAQS for all pollutants for which the federal government has NAAQS and, in addition, establishes standards for SO<sub>4</sub>, visibility, hydrogen sulfide (H<sub>2</sub>S), and vinyl chloride (C<sub>2</sub>H<sub>3</sub>Cl). However, at this time, H<sub>2</sub>S and C<sub>2</sub>H<sub>3</sub>Cl are not measured at any monitoring stations in the SCAB because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS (16) (12).

Local air quality management districts, such as the SCAQMD, regulate air emissions from stationary sources such as commercial and industrial facilities. All air pollution control districts have been formally designated as attainment or non-attainment for each CAAQS.

Serious non-attainment areas are required to prepare Air Quality Management Plans (AQMP) that include specified emission reduction strategies in an effort to meet clean air goals. These plans are required to include:

- Application of Best Available Retrofit Control Technology to existing sources;

- Developing control programs for area sources (e.g., architectural coatings and solvents) and indirect sources (e.g. motor vehicle use generated by residential and commercial development);
- A District permitting system designed to allow no net increase in emissions from any new or modified permitted sources of emissions;
- Implementing reasonably available transportation control measures and assuring a substantial reduction in growth rate of vehicle trips and miles traveled;
- Significant use of low emissions vehicles by fleet operators;
- Sufficient control strategies to achieve a 5% or more annual reduction in emissions or 15% or more in a period of three years for ROG<sub>s</sub>, NO<sub>x</sub>, CO and PM<sub>10</sub>. However, air basins may use alternative emission reduction strategy that achieves a reduction of less than 5% per year under certain circumstances.

#### **TITLE 24 ENERGY EFFICIENCY STANDARDS AND CALIFORNIA GREEN BUILDING STANDARDS**

California Code of Regulations (CCR) Title 24 Part 6: The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption.

The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on August 1, 2009, and is administered by the California Building Standards Commission.

CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that will be effective on January 1, 2023. The CEC anticipates that the 2022 energy code will provide \$1.5 billion in consumer benefits and reduce GHG emissions by 10 million metric tons (17). The Project would be required to comply with the applicable standards in place at the time plan check submittals are made. These require, among other items (18):

#### **NONRESIDENTIAL MANDATORY MEASURES**

- Short-term bicycle parking. If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1.1).
- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (5.106.4.1.2).
- Designated parking for clean air vehicles. In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2 (5.106.5.2).

- EV charging stations. New construction shall facilitate the future installation of EV supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load. The number of spaces to be provided for is contained in Table 5.106.5.3.3 (5.106.5.3). Additionally, Table 5.106.5.4.1 specifies requirements for the installation of raceway conduit and panel power requirements for medium- and heavy-duty electric vehicle supply equipment for warehouses, grocery stores, and retail stores.
- Outdoor light pollution reduction. Outdoor lighting systems shall be designed to meet the backlight, upright and glare ratings per Table 5.106.8 (5.106.8).
- Construction waste management. Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.405.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent (5.408.1).
- Excavated soil and land clearing debris. 100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reuse or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed (5.408.3).
- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive (5.410.1).
- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
  - Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (5.303.3.1)
  - Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush (5.303.3.2.1). The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush (5.303.3.2.2).
  - Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi (5.303.3.3.1). When a shower is served by more than one showerhead, the combine flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (5.303.3.3.2).
  - Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi (5.303.3.4.1). Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi (5.303.3.4.2). Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute (5.303.3.4.3). Metering faucets shall not deliver more than 0.20 gallons per cycle (5.303.3.4.4). Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle (5.303.3.4.5).
- Outdoor potable water uses in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent (5.304.1).



- Water meters. Separate submeters or metering devices shall be installed for new buildings or additions in excess of 50,000 sf or for excess consumption where any tenant within a new building or within an addition that is project to consume more than 1,000 gallons per day (GPD) (5.303.1.1 and 5.303.1.2).
- Outdoor water uses in rehabilitated landscape projects equal or greater than 2,500 sf. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 sf requiring a building or landscape permit (5.304.3).
- Commissioning. For new buildings 10,000 sf and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (5.410.2).

### **2.8.3 AQMP**

Currently, the NAAQS and CAAQS are exceeded in most parts of the SCAB. In response, the SCAQMD has adopted a series of AQMP to meet the state and federal ambient air quality standards (19). AQMPs are updated regularly to ensure an effective reduction in emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy. A detailed discussion on the AQMP and Project consistency with the AQMP is provided in Section 4.10.

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### 3 EXISTING PROJECT SITE AIR QUALITY CONDITIONS

The Project site is currently occupied and operating as a grain processing company and a corn storage and distribution facility. The estimated operation-source emissions from the existing development are summarized on Table 3-1. Detailed operation model outputs are presented in Appendix 3.1.

**TABLE 3-1: EMISSIONS FROM EXISTING DEVELOPMENT**

Source	Emissions (lbs/day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Summer						
Mobile Source	1.03	9.24	15.78	0.08	2.04	0.53
Area Source	1.30	0.02	1.82	0.00	0.00	0.00
Energy Source	0.02	0.43	0.36	0.00	0.03	0.03
<b>Total Maximum Daily Emissions</b>	<b>2.35</b>	<b>9.69</b>	<b>17.96</b>	<b>0.08</b>	<b>2.07</b>	<b>0.56</b>
Winter						
Mobile Source	0.97	9.68	13.68	0.08	2.04	0.53
Area Source	1.00	0.00	0.00	0.00	0.00	0.00
Energy Source	0.02	0.43	0.36	0.00	0.03	0.03
<b>Total Maximum Daily Emissions</b>	<b>1.99</b>	<b>10.11</b>	<b>14.04</b>	<b>0.08</b>	<b>2.07</b>	<b>0.56</b>

Source: CalEEMod existing operational-source emissions are presented in Appendix 3.1.

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## 4 PROJECT AIR QUALITY IMPACT

### 4.1 INTRODUCTION

This study quantifies air quality emissions generated by construction and operation of the Project and addresses whether the Project conflicts with implementation of the SCAQMD's AQMP and Lead Agency planning regulations. The analysis of Project-generated air emissions determines whether the Project would result in a cumulatively considerable net increase of any criteria pollutant for which the SCAB is in non-attainment under an applicable NAAQS and CAAQS. Additionally, the Project has been evaluated to determine whether the Project would expose sensitive receptors to substantial pollutant concentrations and the impacts of odors. The significance of these potential impacts is described in the following sections.

### 4.2 STANDARDS OF SIGNIFICANCE

The criteria used to determine the significance of potential Project-related air quality impacts are taken from the *CEQA Guidelines* (14 CCR §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to air quality if it would (1):

- Conflict with or obstruct implementation of the applicable air quality plan.
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard.
- Expose sensitive receptors to substantial pollutant concentrations.
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The SCAQMD has also developed regional significance thresholds for other regulated pollutants, as summarized at Table 4-1 (20). The SCAQMD's *CEQA Air Quality Significance Thresholds* (April 2019) indicate that any projects in the SCAB with daily emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively significant air quality impact.

**TABLE 4-1: MAXIMUM DAILY REGIONAL EMISSIONS THRESHOLDS**

Pollutant	Regional Construction Threshold	Regional Operational Thresholds
NO <sub>x</sub>	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM <sub>10</sub>	150 lbs/day	150 lbs/day
PM <sub>2.5</sub>	55 lbs/day	55 lbs/day
SO <sub>x</sub>	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Pb	3 lbs/day	3 lbs/day

lbs/day = Pounds Per Day

## 4.3 MODELS EMPLOYED TO ANALYZE AIR QUALITY

### 4.3.1 CALFEEMOD

Land uses such as the Project affect air quality through construction-source and operational-source emissions.

In May 2022 the California Air Pollution Control Officers Association (CAPCOA) in conjunction with other California air districts, including SCAQMD, released the latest version of CalFEEMod version 2022.1. The purpose of this model is to calculate construction-source and operational-source criteria pollutant (VOCs, NO<sub>x</sub>, SO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub>) and GHG emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures (21). Accordingly, the latest version of CalFEEMod has been used for this Project to determine construction and operational air quality emissions. Output from the model runs for both construction and operational activity are provided in Appendices 4.1 through 4.3.

## 4.4 CONSTRUCTION EMISSIONS

### 4.4.1 CONSTRUCTION ACTIVITIES

Construction activities associated with the Project would result in emissions of VOCs, NO<sub>x</sub>, SO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub>. Construction related emissions are expected from the following construction activities:

- Demolition/Crushing
- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating/Landscaping

#### DEMOLITION ACTIVITIES

The site is currently developed with existing buildings that will be demolished. Approximately 1,922 tons of the demolished material will be crushed onsite, and 50 tons of the demolished material will be hauled off-site.

#### CRUSHING ACTIVITIES

The Project activities would include on-site crushing of concrete and asphalt pulverizing during demolition activity. Fugitive dust emissions would also be generated through the crushing debris on-site. The U.S. EPA's AP-42 compilation of emission factors available in Chapter 11.19.2-2 were used to estimate fugitive dust from crushing activities. As noted above, it is estimated that approximately 1,922 tons of debris would be crushed (approximately 32.03 tons per day).

## GRADING ACTIVITIES

Dust is typically a major concern during grading activities. Because such emissions are not amenable to collection and discharge through a controlled source, they are called “fugitive emissions”. Fugitive dust emissions rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). CalEEMod was utilized to calculate fugitive dust emissions resulting from this phase of activity. The Project is anticipated to require approximately 9,000 cubic yards of export.

## OFF-SITE UTILITY AND INFRASTRUCTURE IMPROVEMENTS

In addition, to support the Project development, there may be paving for off-site improvements associated with roadway construction and utility installation for the Project. It is expected that the off-site construction activities would not take place at one location for the entire duration of construction. Impacts associated with these activities are not expected to exceed the emissions identified for Project-related construction activities since the off-site construction areas would have physical constraints on the amount of daily activity that could occur. The physical constraints would limit the amount of construction equipment that could be used, and any off-site and utility infrastructure construction would not use equipment totals that would exceed the equipment totals on Table 4-5. As such, no impacts beyond what has already been identified in this report are expected to occur.

## ON-ROAD TRIPS

Construction generates on-road vehicle emissions from vehicle usage for workers, vendors, and haul trucks commuting to and from the site. The number of worker, vendor, and hauling trips are presented below in Table 4-2. Worker and hauling trips are based on CalEEMod defaults. It should be noted that for vendor trips, specifically, CalEEMod only assigns vendor trips to the Building Construction phase. Vendor trips would likely occur during all phases of construction. As such, the CalEEMod defaults for vendor trips have been adjusted based on a ratio of the total vendor trips to the number of days of each subphase of activity.

**TABLE 4-2: CONSTRUCTION TRIP ASSUMPTIONS**

Construction Activity	Worker Trips Per Day	Vendor Trips Per Day	Hauling Trips Per Day
Demolition/Crushing	18	10	3
Site Preparation	18	5	0
Grading	20	5	38
Building Construction	114	25	0
Paving	15	0	0
Architectural Coating/Landscaping	23	0	0

#### 4.4.2 CONSTRUCTION DURATION

For purposes of analysis, construction of Project is expected to commence in May 2023 and would last through April 2024. The construction schedule utilized in the analysis, shown in Table 4-3, represents a “worst-case” analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent<sup>2</sup>. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per *CEQA Guidelines* (1).

**TABLE 4-3: CONSTRUCTION DURATION**

Construction Activity	Start Date	End Date	Days
Demolition/Crushing	05/02/2023	07/24/2023	60
Site Preparation	07/25/2023	09/04/2023	30
Grading	07/25/2023	09/04/2023	30
Building Construction	09/05/2023	04/15/2024	160
Paving	02/13/2024	04/15/2024	45
Architectural Coating/Landscaping	03/05/2024	04/15/2024	30

#### 4.4.3 CONSTRUCTION EQUIPMENT

A summary of construction equipment assumptions by phase is provided at Table 4-4. In accordance the City of Ontario General Plan Update, this analysis assumed the use of CARB Tier 4 Interim equipment during Project construction.

**TABLE 4-4: CONSTRUCTION EQUIPMENT ASSUMPTIONS (1 OF 2)**

Construction Activity	Equipment <sup>1</sup>	Amount	Hours Per Day
Demolition/Crushing	Rubber Tired Dozers	2	8
	Excavators	3	8
	Concrete/Industrial Saws	1	8
	Crushing/Proc. Equipment <sup>2</sup>	1	8
Site Preparation	Rubber Tired Dozers	3	8
	Crawler Tractors	4	8

<sup>2</sup> As shown in the CalEEMod User’s Guide Version 2022.1, Section 4.3 “Off-Road Equipment” as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.



**TABLE 4-4: CONSTRUCTION EQUIPMENT ASSUMPTIONS (2 OF 2)**

Construction Activity	Equipment <sup>1</sup>	Amount	Hours Per Day
Grading	Graders	1	8
	Excavators	2	8
	Scrapers	2	8
	Rubber Tired Dozers	1	8
	Crawler Tractors	2	8
Building Construction	Forklifts	5	8
	Generator Sets	2	8
	Cranes	2	8
	Welders	2	8
	Crawler Tractors	5	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	1	8

<sup>1</sup> In order to account for fugitive dust emissions, Crawler Tractors were used in lieu of Tractors/Loaders/Backhoes during the site preparation and grading phases of Project construction.

<sup>2</sup> The Project will use an electric-powered crusher which will be powered by a diesel generator. As a conservative measure, this analysis models a single diesel-powered generator set.

#### 4.4.4 CONSTRUCTION EMISSIONS SUMMARY

##### IMPACTS WITHOUT MITIGATION

The estimated maximum daily construction emissions without mitigation are summarized on Table 4-5. Detailed construction model outputs are presented in Appendix 4.1. Under the assumed scenarios, emissions resulting from the Project construction will not exceed the thresholds established by the SCAQMD for emissions of any criteria pollutant.

**TABLE 4-5: OVERALL CONSTRUCTION EMISSIONS SUMMARY – WITHOUT MITIGATION**

Year	Emissions (lbs/day) <sup>1</sup>					
	VOC	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Summer						
2023	1.77	39.60	71.80	0.13	9.9	4.32
2024	47.20	30.20	56.60	0.07	2.58	0.89
Winter						
2023	1.48	21.70	39.80	0.06	1.98	0.65
2024	47.10	30.40	53.50	0.07	2.58	0.89
<b>Maximum Daily Emissions</b>	<b>47.20</b>	<b>39.60</b>	<b>71.80</b>	<b>0.13</b>	<b>9.97</b>	<b>4.32</b>
SCAQMD Regional Threshold	75	100	550	150	150	55
<b>Threshold Exceeded?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>

<sup>1</sup> PM<sub>10</sub> and PM<sub>2.5</sub> emissions include fugitive dust from Crushing activities

Source: CalEEMod construction-source (unmitigated) emissions are presented in Appendix 4.1.

## 4.5 OPERATIONAL EMISSIONS

Operational activities associated with the Project would result in emissions of VOCs, NO<sub>x</sub>, SO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub>. Operational emissions are expected from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions
- Transportation Refrigeration Units (TRUs)
- On-Site Cargo Handling Equipment Emissions
- Stationary Source Emissions

### 4.5.1 AREA SOURCE EMISSIONS

#### ARCHITECTURAL COATINGS

Over a period of time the buildings that are part of this Project would require maintenance and would therefore produce emissions resulting from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings. The emissions associated with architectural coatings were calculated using CalEEMod.

#### CONSUMER PRODUCTS

Consumer products include, but are not limited to detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. Many of these products contain organic compounds which when released in the atmosphere can react to form ozone and other photochemically reactive pollutants. The emissions associated with use of consumer products were calculated based on defaults provided within CalEEMod.

## LANDSCAPE MAINTENANCE EQUIPMENT

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. It should be noted that as October 9, 2021, Governor Gavin Newsom signed AB 1346. The bill aims to ban the sale of new gasoline-powered equipment under 25 gross horsepower (known as small off-road engines [SOREs]) by 2024. For purposes of analysis, the emissions associated with landscape maintenance equipment were calculated based on assumptions provided in CalEEMod.

### 4.5.2 ENERGY SOURCE EMISSIONS

#### COMBUSTION EMISSIONS ASSOCIATED WITH NATURAL GAS AND ELECTRICITY

Electricity and natural gas are used by almost every project. Criteria pollutant emissions are emitted through the generation of electricity and consumption of natural gas. However, because electrical generating facilities for the Project area are located either outside the region (state) or offset through the use of pollution credits (RECLAIM) for generation within the SCAB, criteria pollutant emissions from offsite generation of electricity are generally excluded from the evaluation of significance and only natural gas use is considered. The emissions associated with natural gas use were calculated using CalEEMod.

### 4.5.3 MOBILE SOURCE EMISSIONS

The Project related operational air quality emissions derive primarily from vehicle trips generated by the Project, including employee trips to and from the site and truck trips associated with the proposed uses.

It should be noted that CalEEMod has different trip rates for different days of the week. In order to accurately determine mobile-source emission from vehicle activity generated by the proposed Project, the CalEEMod default trip rates were adjusted for weekday, Saturday, and Sunday utilizing the trip rates based on trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021) (22). The following trip generation rates and vehicle mix were utilized for calculating the trip generation for the proposed Project:

- High-Cube Cold Storage Warehouse (ITE land use code 157) has been used to derive site specific trip generation estimates for the 27,034-sf building of the proposed Project. High-cube warehouses include warehouses characterized by the storage and/or consolidation of manufactured goods (and to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. High-cube cold storage warehouses are facilities typified by temperature-controlled environments for frozen food or other perishable products. The High-Cube Cold Storage Warehouse vehicle mix (passenger cars versus trucks) has been obtained from the ITE's Trip Generation Manual. The truck percentages were further broken down by axle type per the following SCAQMD recommended truck mix: 2-Axle = 36.4%; 3-Axle = 9.09%; 4+-Axle = 54.6%.

- ITE Land Use Code 150 has been used to derive site specific trip generation estimates for the 243,303-sf building of the proposed Project. The vehicle mix has been obtained from the ITE's Trip Generation Manual Supplement (dated February 2020). The truck percentages were further broken down by axle type per the following SCAQMD recommended truck mix: 2-Axle = 16.4%; 3-Axle = 20.6%; 4+-Axle = 63.0%.

#### APPROACH FOR ANALYSIS OF THE PROJECT

In order to determine emissions from passenger car vehicles, CalEEMod defaults for trip length and trip purpose were utilized. Default vehicle trip lengths for primary trips will be populated using data from the local metropolitan planning organizations/Regional Transportation Planning Agencies (MPO/RTPA). Trip type percentages and trip lengths provided by MPO/RTPAs truncate data at their demonstrative borders. This analysis assumes that passenger cars include Light-Duty-Auto vehicles (LDA), Light-Duty-Trucks (LDT1<sup>3</sup> & LDT2<sup>4</sup>), Medium-Duty-Vehicles (MDV), and Motorcycles (MCY) vehicle types. In order to account for emissions generated by passenger cars, the fleet mix in Table 4-6 was utilized.

**TABLE 4-6: PASSENGER CAR FLEET MIX**

Land Use	% Vehicle Type				
	LDA	LDT1	LDT2	MDV	MCY
High-Cube Cold Storage	56.23%	4.67%	22.39%	14.70%	2.01%
Warehouse					

Note: The Project-specific passenger car fleet mix used in this analysis is based on a proportional split utilizing the default CalEEMod percentages assigned to LDA, LDT1, LDT2, and MDV vehicle types.

To determine emissions from trucks for the proposed industrial uses, the analysis incorporated the SCAQMD recommended truck trip length of 15.3 miles for 2-axle (LHDT1, LHDT2), 14.2 miles for 3-axle (MHDT) trucks, and 40 miles for 4+-axle (HHDT) trucks and weighting the average trip lengths using traffic trip percentages. The trip length function for the general light industrial use has been revised to 30.58 miles and 28.62 miles for the high-cube cold storage and warehouse uses, respectively, an assumption of 100% primary trips for the proposed industrial land uses. Trucks are broken down by truck type. The truck fleet mix is estimated by rationing the trip rates for each truck type based on information provided by the SCAQMD recommended truck mix, by axle type. Heavy trucks are broken down by truck type (or axle type) and are categorized as either Light-Heavy-Duty Trucks (LHDT1<sup>5</sup> & LHDT2<sup>6</sup>)/2-axle, Medium-Heavy-Duty Trucks (MHDT)/3-axle, and Heavy-Heavy-Duty Trucks (HHDT)/4+-axle. To account for emissions generated by trucks, the fleet mix in Table 4-7 was utilized.

<sup>3</sup> Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.

<sup>4</sup> Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.

<sup>5</sup> Vehicles under the LHDT1 category have a GVWR of 8,501 to 10,000 lbs.

<sup>6</sup> Vehicles under the LHDT2 category have a GVWR of 10,001 to 14,000 lbs.

**TABLE 4-7: TRUCK FLEET MIX**

Land Use	% Vehicle Type			
	LHDT1	LHDT2	MHDT	HHDT
High-Cube Cold Storage	12.94%	3.49%	20.55%	63.01%
Warehouse	28.64%	7.73%	9.09%	54.55%

Note: Project-specific truck fleet mix is based on the number of trips generated by each truck type (LHDT1, LHDT2, MHDT, and HHDT) relative to the total number of truck trips.

#### FUGITIVE DUST RELATED TO VEHICULAR TRAVEL

Vehicles traveling on paved roads would be a source of fugitive emissions due to the generation of road dust inclusive of brake and tire wear particulates. The emissions estimate for travel on paved roads were calculated using CalEEMod.

#### 4.5.4 TRU SOURCE EMISSIONS

In order to account for the possibility of refrigerated uses, trucks associated with the cold-storage land use are assumed to also have TRUs. Therefore, for modeling purposes 11 trucks (22 truck trips per day) have the potential to include TRUs. TRUs are accounted for during on-site and off-site travel. The TRU calculations are based on EMISSIONS FACTOR MODEL version 2021 (EMFAC2021), developed by the CARB. EMFAC2021 does not provide emission rates per hour or mile as with the on-road emission model and only provides emission inventories. Emission results are produced in tons per day while all activity, fuel consumption and horsepower hours were reported at annual levels. The emission inventory is based on specific assumptions including the average horsepower rating of specific types of equipment and the hours of operation annually. These assumptions are not always consistent with assumptions used in the modeling of project level emissions. Therefore, the emissions inventory was converted into emission rates to accurately calculate emissions from TRU operation associated with project level details. This was accomplished by converting the annual horsepower hours to daily operational characteristics and converting the daily emission levels into hourly emission rates based on the total emission of each criteria pollutant by equipment type and the average daily hours of operation.

#### 4.5.5 ON-SITE CARGO HANDLING EQUIPMENT SOURCE EMISSIONS

It is common for industrial buildings to require the operation of exterior cargo handling equipment in the building's truck court areas. For this particular Project, on-site modeled operational equipment includes up to one (1) 175 horsepower (hp), natural gas-powered cargo handling equipment – port tractor operating 4 hours a day<sup>7</sup> for 365 days of the year.

<sup>7</sup> Based on Table II-3, Port and Rail Cargo Handling Equipment Demographics by Type, from CARB's Technology Assessment: Mobile Cargo Handling Equipment document, a single piece of equipment could operate up to 2 hours per day (Total Average Annual Activity divided by Total Number Pieces of Equipment). As such, the analysis conservatively assumes that the tractor/loader/backhoe would operate up to 4 hours per day.

#### 4.5.6 OPERATIONAL EMISSIONS SUMMARY

As previously stated, CalEEMod utilizes summer and winter EMFAC2021 emission factors in order to derive vehicle emissions associated with Project operational activities, which vary by season. The estimated operational-source emissions are summarized on Table 4-8. It should be noted that the existing development emissions were subtracted from the Project operational emissions to determine the new emissions from the proposed Project. Detailed operation model outputs for the Project are presented in Appendices 4.2 and 4.3. As shown on Table 4-8, the Project's daily regional emissions from on-going operations would not exceed the thresholds of significance for emissions of any criteria pollutant.

**TABLE 4-8: SUMMARY OF PEAK OPERATIONAL EMISSIONS**

Source	Emissions (lbs/day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Summer						
Mobile Source	1.51	11.90	22.21	0.12	2.84	0.70
Area Source	8.45	0.10	11.80	0.00	0.02	0.02
Energy Source	0.16	2.87	2.41	0.02	0.22	0.22
TRU Source	0.79	0.87	0.10	0.00	0.04	0.03
On-Site Equipment Source	0.12	0.38	16.44	0.00	0.03	0.03
<b>Project Maximum Daily Emissions</b>	<b>11.02</b>	<b>16.12</b>	<b>52.96</b>	<b>0.14</b>	<b>3.15</b>	<b>1.00</b>
<i>Existing</i>	2.35	9.69	17.96	0.08	2.07	0.56
<b>Total Maximum Daily Emissions</b>	<b>8.67</b>	<b>6.43</b>	<b>35.00</b>	<b>0.06</b>	<b>1.08</b>	<b>0.44</b>
SCAQMD Regional Threshold	55	55	550	150	150	55
<b>Threshold Exceeded?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
Winter						
Mobile Source	1.43	12.49	19.13	0.12	2.84	0.70
Area Source	6.52	0.00	0.00	0.00	0.00	0.00
Energy Source	0.16	2.87	2.41	0.02	0.22	0.22
TRU Source	0.79	0.87	0.10	0.00	0.04	0.03
On-Site Equipment Source	0.12	0.38	16.44	0.00	0.03	0.03
<b>Project Maximum Daily Emissions</b>	<b>9.01</b>	<b>16.61</b>	<b>38.08</b>	<b>0.14</b>	<b>3.13</b>	<b>0.98</b>
<i>Existing</i>	1.99	10.11	14.04	0.08	2.07	0.56
<b>Total Maximum Daily Emissions</b>	<b>7.02</b>	<b>6.50</b>	<b>24.04</b>	<b>0.06</b>	<b>1.06</b>	<b>0.42</b>
SCAQMD Regional Threshold	55	55	550	150	150	55
<b>Threshold Exceeded?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>

Source: CalEEMod operational-source emissions are presented in Appendices 4.2 and 4.3.

## 4.6 LOCALIZED SIGNIFICANCE

### BACKGROUND ON LST DEVELOPMENT

The analysis makes use of methodology included in the SCAQMD *Final Localized Significance Threshold Methodology* (LST Methodology). The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the federal and/or state ambient air quality standards (NAAQS/CAAQS). Collectively, these are referred to as Localized Significance Thresholds (LSTs).

The SCAQMD established LSTs in response to the SCAQMD Governing Board's Environmental Justice Initiative I-4<sup>8</sup>. LSTs represent the maximum emissions from a project that would not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest residence or sensitive receptor. The SCAQMD states that lead agencies can use the LSTs as another indicator of significance in its air quality impact analyses.

LSTs were developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities. To address the issue of localized significance, the SCAQMD adopted LSTs that show whether a project would cause or contribute to localized air quality impacts and thereby cause or contribute to potential localized adverse health effects. The analysis makes use of methodology included in the *LST Methodology* (23).

### APPLICABILITY OF LSTs FOR THE PROJECT

For this Project, the appropriate SRA for the LST analysis is the SCAQMD I-10 Near Road (SRA 33). LSTs apply to CO, NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. The SCAQMD produced look-up tables for projects less than or equal to 5 acres in size.

In order to determine the appropriate methodology for determining localized impacts that could occur as a result of Project-related construction, the following process is undertaken:

- Identify the maximum daily on-site emissions that would occur during construction activity:
  - The maximum daily on-site emissions could be based on information provided by the Project Applicant; or
  - The SCAQMD's *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds* and *CalEEMod User's Guide Appendix A: Calculation Details for CalEEMod* can be used to determine the maximum site acreage that is actively disturbed based on the construction equipment fleet and equipment hours as estimated in CalEEMod (24) (25).
- If the total acreage disturbed is less than or equal to 5 acres per day, then the SCAQMD's screening look-up tables are utilized to determine if a Project has the potential to result in a significant

<sup>8</sup> The purpose of SCAQMD's Environmental Justice program is to ensure that everyone has the right to equal protection from air pollution and fair access to the decision-making process that works to improve the quality of air within their communities. Further, the SCAQMD defines Environmental Justice as "...equitable environmental policymaking and enforcement to protect the health of all residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location, from the health effects of air pollution."

impact. The look-up tables establish a maximum daily emissions threshold in lbs/day that can be compared to CalEEMod outputs.

- If the total acreage disturbed is greater than 5 acres per day, then LST impacts may still be conservatively evaluated using the LST look-up tables for a 5-acre disturbance area. Use of the 5-acre disturbance area thresholds can be used to show that even if the daily emissions from all construction activity were emitted within a 5-acre area, and therefore concentrated over a smaller area which would result in greater site adjacent concentrations, the impacts would still be less than significant if the applicable 5-acre thresholds are utilized.
- The *LST Methodology* presents mass emission rates for each SRA, project sizes of 1, 2, and 5 acres, and nearest receptor distances of 25, 50, 100, 200, and 500 meters. For project sizes between the values given, or with receptors at distances between the given receptors, the methodology uses linear interpolation to determine the thresholds.

### EMISSIONS CONSIDERED

Based on SCAQMD's *LST Methodology*, emissions for concern during construction activities are on-site NO<sub>x</sub>, CO, PM<sub>2.5</sub>, and PM<sub>10</sub>. The *LST Methodology* clearly states that "off-site mobile emissions from the Project should not be included in the emissions compared to LSTs (26)." As such, for purposes of the construction LST analysis, only emissions included in the CalEEMod "on-site" emissions outputs were considered.

### MAXIMUM DAILY DISTURBED-ACREAGE

The "acres disturbed" for analytical purposes are based on specific equipment type for each subcategory of construction activity and the estimated maximum area a given piece of equipment can pass over in an 8-hour workday (as shown on Table 4-9). The equipment-specific grading rates are summarized in the SCAQMD's *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds* and CalEEMod User's Guide *Appendix C: Emission Calculation Details for CalEEMod* (24) (27). The disturbed area per day is representative of a piece of equipment making multiple passes over the same land area. In other words, one Rubber Tired Dozer can make multiple passes over the same land area totaling 0.5 acres in a given 8-hour day. Based on Table 4-9, the Project's construction activities could actively disturb approximately 1.0 acre per day during demolition/crushing, 3.5 acres per day during site preparation, and 4.0 acres per day during grading activities. For purposes of analysis and in order to use linear regression, this analysis conservatively assumes that 5 acres can be disturbed during site preparation activities.



TABLE 4-9: MAXIMUM DAILY DISTURBED-ACREAGE

Construction Activity	Equipment Type	Equipment Quantity	Acres graded per 8-hour day	Operating Hours per Day	Acres graded per day
Demolition	Rubber Tired Dozers	2	0.5	8	1.0
Total acres disturbed per day during Demolition					1.0
Site Preparation	Crawler Tractors	4	0.5	8	2.0
	Rubber Tired Dozers	3	0.5	8	1.5
Total acres disturbed per day during Site Preparation					3.5
Grading	Crawler Tractors	2	0.5	8	1.0
	Graders	1	0.5	8	0.5
	Rubber Tired Dozers	1	0.5	8	0.5
	Scrapers	2	1.0	8	2.0
Total acres disturbed per day during Grading					4.0

Source: Maximum daily disturbed acreage based on equipment list presented in Appendix 4.1.

## RECEPTORS

As previously stated, LSTs represent the maximum emissions from a project that would not cause or contribute to an exceedance of the most stringent applicable NAAQS and CAAQS at the nearest residence or sensitive receptor. Receptor locations are off-site locations where individuals may be exposed to emissions from Project activities.

Some people are especially sensitive to air pollution and are given special consideration when evaluating air quality impacts from projects. These groups of people include children, the elderly, and individuals with pre-existing respiratory or cardiovascular illness. Structures that house these persons or places where they gather are defined as “sensitive receptors”. These structures typically include uses such as residences, hotels, and hospitals where an individual can remain for 24 hours. Consistent with the LST Methodology, the nearest land use where an individual could remain for 24 hours to the Project site has been used to determine construction and operational air quality impacts for emissions of PM<sub>10</sub> and PM<sub>2.5</sub>, since PM<sub>10</sub> and PM<sub>2.5</sub> thresholds are based on a 24-hour averaging time.

LSTs apply, even for non-sensitive land uses, consistent with *LST Methodology* and SCAQMD guidance. Per the *LST Methodology*, commercial and industrial facilities are not included in the definition of sensitive receptor because employees and patrons do not typically remain onsite for a full 24 hours but are typically onsite for 8 hours or less. However, *LST Methodology* explicitly states that “LSTs based on shorter averaging periods, such as the NO<sub>2</sub> and CO LSTs, could also be applied to receptors such as industrial or commercial facilities since it is reasonable to assume that a worker at these sites could be present for periods of one to eight hours (26).” Therefore, any adjacent land use where an individual could remain for 1 or 8-hours, that is located at a closer distance to the Project site than the receptor used for PM<sub>10</sub> and PM<sub>2.5</sub> analysis, must be

considered to determine construction and operational LST air impacts for emissions of NO<sub>2</sub> and CO since these pollutants have an averaging time of 1 and 8-hours.

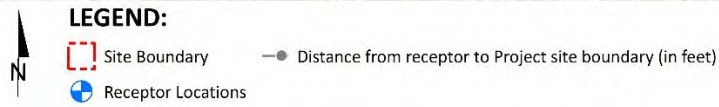
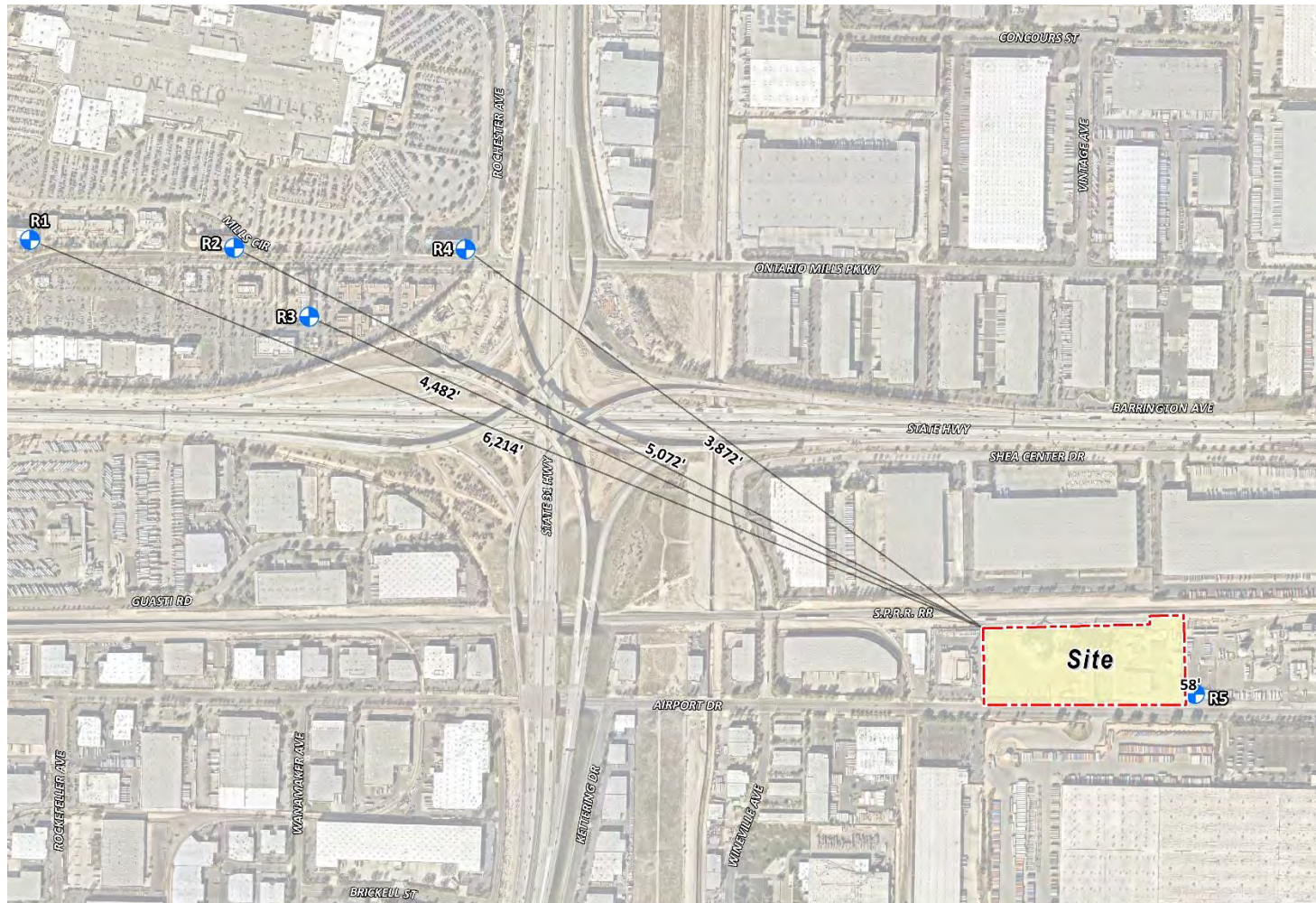
#### PROJECT-RELATED RECEPTORS

Receptors in the Project study area are described below and shown on Exhibit 4-A. Localized air quality impacts were evaluated at sensitive receptor land uses nearest the Project site. All distances are measured from the Project site boundary to the outdoor living areas (e.g., backyards) or at the building façade, whichever is closer to the Project site. The selection of receptor locations is based on Federal Highway Administration (FHWA) guidelines and is consistent with additional guidance provided by Caltrans and the Federal Transit Administration (FTA).

- R1: Location R1 represents the Ayres Hotel Ontario Mills Mall at 4395 Ontario Mills Parkway, approximately 6,214 feet northwest of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receptor R1 is placed at the building façade.
- R2: Location R2 represents the Hampton Inn & Suites Ontario at 4500 Ontario Mills Parkway, approximately 5,072 feet northwest of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receptor R2 is placed at the building façade.
- R3: Location R3 represents the Country Inn & Suites by Radisson, Ontario at Ontario Mills at 4674 Ontario Mills Parkway, approximately 4,482 feet northwest of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receptor R3 is placed at the building façade.
- R4: Location R4 represents the Hyatt Place Ontario/Rancho Cucamonga at 4760 Mills Circle, approximately 3,872 feet northwest of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receptor R4 is placed at the building façade.
- R5: Location R5 represents Linde Industrial Gas Supplier facility at 5735 East Airport Drive, approximately 58 feet east of the Project site.

The SCAQMD recommends that the nearest sensitive receptor be considered when determining the Project's potential to cause an individual a cumulatively significant impact. The nearest land use where an individual could remain for 24 hours to the Project site has been used to determine localized construction and operational air quality impacts for emissions of PM<sub>10</sub> and PM<sub>2.5</sub> (since PM<sub>10</sub> and PM<sub>2.5</sub> thresholds are based on a 24-hour averaging time). The nearest receptor used for evaluation of localized impacts of PM<sub>10</sub> and PM<sub>2.5</sub> is the Hyatt Place Ontario/Rancho Cucamonga at 4760 Mills Circle, approximately 3,872 feet northwest of the Project site, represented by R4, approximately 3,872 feet (1,180 meters) north of the Project site. It should be noted that the look-up tables only identify thresholds up to a 500-meter distance. As a conservative measure, the 500-meter distance will be used in lieu of the 1,180-meters.

EXHIBIT 4-A: RECEPTOR LOCATIONS



As previously stated, and consistent with *LST Methodology*, the nearest commercial/industrial use to the Project site is used to determine construction and operational LST air impacts for emissions of NO<sub>x</sub> and CO as the averaging periods for these pollutants are shorter (8 hours or less) and it is reasonable to assumed that an individual could be present at these sites for periods of one to 8 hours. The nearest receptor used for evaluation of localized impacts of NO<sub>x</sub> and CO is the Linde Industrial Gas Supplier facility at 5735 East Airport Drive, represented by R5, approximately 58 feet (18 meters) west of the Project site. It should be noted that the *LST Methodology* explicitly states that “*It is possible that a project may have receptors closer than 25 meters. Projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters (28).*” As such a 25-meter receptor distance will be used for evaluation of localized NO<sub>x</sub> and CO.

## 4.7 CONSTRUCTION-SOURCE EMISSIONS LST ANALYSIS

### 4.7.1 LOCALIZED THRESHOLDS FOR CONSTRUCTION ACTIVITY

Since the total acreage disturbed is less than five acres per day for demolition/crushing, site preparation, and grading activities, the SCAQMD’s screening look-up tables are utilized in determining impacts. Consistent with SCAQMD guidance, the thresholds presented in Table 4-10 were calculated by interpolating the threshold values for the Project’s disturbed acreage.

**TABLE 4-10: MAXIMUM DAILY LOCALIZED CONSTRUCTION EMISSIONS THRESHOLDS**

Construction Activity	Construction Localized Thresholds			
	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Demolition/Crushing	118 lbs/day	863 lbs/day	280 lbs/day	141 lbs/day
Site Preparation	220 lbs/day	1,713 lbs/day	241 lbs/day	160 lbs/day
Grading	237 lbs/day	1,873 lbs/day	268 lbs/day	163 lbs/day

Source: Localized Thresholds presented in this table are based on the SCAQMD Final LST Methodology, July 2008

### 4.7.2 CONSTRUCTION-SOURCE LOCALIZED EMISSIONS

#### IMPACTS WITHOUT MITIGATION

Table 4-11 identifies the localized impacts at the nearest receptor location in the vicinity of the Project. Without mitigation, localized construction emissions would not exceed the applicable SCAQMD LSTs for emissions of any criterial pollutant. Outputs from the model runs for unmitigated construction LSTs are provided in Appendix 4.1.

TABLE 4-11: LOCALIZED CONSTRUCTION-SOURCE EMISSIONS – WITHOUT MITIGATION

Construction Activity	Year	Scenario	Emissions (lbs/day)			
			NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Demolition/ Crushing	2023	Summer	12.70	18.70	0.70	0.29
		Winter	n/a	n/a	n/a	n/a
		<b>Maximum Daily Emissions</b>	<b>12.70</b>	<b>18.70</b>	<b>0.70</b>	<b>0.29</b>
		SCAQMD Localized Threshold	118	863	280	141
		<b>Threshold Exceeded?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
Site Preparation	2023	Summer	15.70	30.00	5.76	2.79
		Winter	n/a	n/a	n/a	n/a
		<b>Maximum Daily Emissions</b>	<b>15.70</b>	<b>30.00</b>	<b>5.76</b>	<b>2.79</b>
		SCAQMD Localized Threshold	220	1,713	241	160
		<b>Threshold Exceeded?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>
Grading	2023	Summer	19.90	36.20	2.85	1.16
		Winter	n/a	n/a	n/a	n/a
		<b>Maximum Daily Emissions</b>	<b>19.90</b>	<b>36.20</b>	<b>2.85</b>	<b>1.16</b>
		SCAQMD Localized Threshold	237	1,873	268	163
		<b>Threshold Exceeded?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>

Source: CalEEMod unmitigated localized construction-source emissions are presented in Appendix 4.1.

#### 4.8 OPERATIONAL-SOURCE EMISSIONS LST ANALYSIS

As previously stated, the Project is located on an approximately 13.08-acre parcel. As noted previously, the *LST Methodology* provides look-up tables for sites with an area with daily disturbance of 5 acres or less. For projects that exceed 5 acres, the 5-acre LST look-up tables can be used as a screening tool to determine whether pollutants require additional detailed analysis. This approach is conservative as it assumes that all on-site emissions associated with the Project would occur within a concentrated 5-acre area. This screening method would therefore over-predict potential localized impacts, because by assuming that on-site operational activities are occurring over a smaller area, the resulting concentrations of air pollutants are more highly concentrated once they reach the smaller site boundary than they would be for activities if they were spread out over a larger surface area. On a larger site, the same amount of air pollutants generated would disperse over a larger surface area and would result in a lower concentration once emissions reach the project-site boundary. As such, LSTs for a 5-acre site during operations are used as a screening tool to determine if further detailed analysis is required. The LST analysis generally includes on-site sources (area, energy, mobile, on-site cargo handling equipment, and stationary equipment – are previously discussed in Section 4.5 of this report). However, it should be noted that the CalEEMod outputs do not separate on-site and off-site emissions from mobile sources. As such, in an effort to establish a maximum potential impact scenario for analytic purposes, the emissions shown on Table 4-13 represent all on-site Project-related stationary

(area) sources and Project-related mobile sources. It should be noted that the longest on-site distance is roughly 0.40 mile for both trucks and passenger cars. Modeling based on these assumptions demonstrates that even within broad encompassing parameters, Project operational-source emissions would not exceed applicable LSTs.

#### 4.8.1 LOCALIZED THRESHOLDS FOR OPERATIONAL ACTIVITY

As previously stated, LSTs for a 5-acre site during operations are used as a screening tool to determine if further detailed analysis is required.

**TABLE 4-12: MAXIMUM DAILY LOCALIZED OPERATIONAL EMISSIONS THRESHOLDS**

Operational Localized Thresholds			
NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
270 lbs/day	2,193 lbs/day	78 lbs/day	41 lbs/day

Source: Localized Thresholds presented in this table are based on the SCAQMD Final LST Methodology, July 2008

#### 4.8.2 OPERATIONAL-SOURCE LOCALIZED EMISSIONS

##### IMPACTS WITHOUT MITIGATION

As shown on Table 4-13 operational emissions would not exceed the LST thresholds for the nearest sensitive receptor. Therefore, the Project would have a less than significant localized impact during operational activity.

**TABLE 4-13: LOCALIZED SIGNIFICANCE SUMMARY OF OPERATIONS**

Scenario	Emissions (lbs/day)			
	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Summer	6.23	34.57	0.37	0.32
Winter	6.22	23.08	0.35	0.30
<b>Maximum Daily Emissions</b>	<b>6.23</b>	<b>34.57</b>	<b>0.37</b>	<b>0.32</b>
SCAQMD Localized Threshold	270	2,193	78	41
<b>Threshold Exceeded?</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>	<b>NO</b>

Source: CalEEMod localized operational-source emissions are presented in Appendix 4.3.

#### 4.9 CO "HOT SPOT" ANALYSIS

As discussed below, the Project would not result in potentially adverse CO concentrations or "hot spots." Further, detailed modeling of Project-specific CO "hot spots" is not needed to reach this conclusion. An adverse CO concentration, known as a "hot spot", would occur if an exceedance of the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur.

It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become

increasingly stringent in the last twenty years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SCAB is now designated as attainment. To establish a more accurate record of baseline CO concentrations affecting the SCAB, a CO “hot spot” analysis was conducted in 2003 for four busy intersections in Los Angeles at the peak morning and afternoon time periods. This “hot spot” analysis did not predict any violation of CO standards, as shown on Table 4-14.

**TABLE 4-14: CO MODEL RESULTS**

Intersection Location	CO Concentrations (ppm)		
	Morning 1-hour	Afternoon 1-hour	8-hour
Wilshire Boulevard/Veteran Avenue	4.6	3.5	3.7
Sunset Boulevard/Highland Avenue	4	4.5	3.5
La Cienega Boulevard/Century Boulevard	3.7	3.1	5.2
Long Beach Boulevard/Imperial Highway	3	3.1	8.4

Source: 2003 AQMP, Appendix V: Modeling and Attainment Demonstrations

Notes: Federal 1-hour standard is 35 ppm and the deferral 8-hour standard is 9.0 ppm.

Based on the SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (*1992 CO Plan*), peak carbon monoxide concentrations in the SCAB were a result of unusual meteorological and topographical conditions and not a result of traffic volumes and congestion at a particular intersection. As evidence of this, for example, 8.4 ppm 8-hr CO concentration measured at the Long Beach Blvd. and Imperial Hwy. intersection (highest CO generating intersection within the “hot spot” analysis), only 0.7 ppm was attributable to the traffic volumes and congestion at this intersection; the remaining 7.7 ppm were due to the ambient air measurements at the time the 2003 AQMP was prepared (29). In contrast, an adverse CO concentration, known as a “hot spot”, would occur if an exceedance of the state one-hour standard of 20 parts per million (ppm) or the eight-hour standard of 9 ppm were to occur.

The ambient 1-hr and 8-hr CO concentration within the Project study area is estimated to be 1.6 ppm and 1.3 ppm, respectively (data from I-10 Near Road monitoring station for 2020). Therefore, even if the traffic volumes for the proposed Project were double or even triple of the traffic volumes generated at the Long Beach Blvd. and Imperial Hwy. intersection, coupled with the on-going improvements in ambient air quality, the Project would not be capable of resulting in a CO “hot spot” at any study area intersections.

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD) concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour (vph)—or 24,000 vph where vertical and/or horizontal air does not mix—in order to generate a

significant CO impact (30). Traffic volumes generating the CO concentrations for the “hot spot” analysis is shown on Table 4-15. The busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which has a daily traffic volume of approximately 100,000 vph and AM/PM traffic volumes of 8,062 vph and 7,719 vph respectively (29). The 2003 AQMP estimated that the 1-hour concentration for this intersection was 4.6 ppm; this indicates that, should the daily traffic volume increase four times to 400,000 vehicles per day, CO concentrations (4.6 ppm x 4= 18.4 ppm) would still not likely exceed the most stringent 1-hour CO standard (20.0 ppm)<sup>9</sup>.

**TABLE 4-15: TRAFFIC VOLUMES**

Intersection Location	Peak Traffic Volumes (vph)				
	Eastbound (AM/PM)	Westbound (AM/PM)	Southbound (AM/PM)	Northbound (AM/PM)	Total (AM/PM)
Wilshire Boulevard/Veteran Avenue	4,954/2,069	1,830/3,317	721/1,400	560/933	8,062/7,719
Sunset Boulevard/Highland Avenue	1,417/1,764	1,342/1,540	2,304/1,832	1,551/2,238	6,614/5,374
La Cienega Boulevard/Century Boulevard	2,540/2,243	1,890/2,728	1,384/2,029	821/1,674	6,634/8,674
Long Beach Boulevard/Imperial Highway	1,217/2,020	1,760/1,400	479/944	756/1,150	4,212/5,514

Source: 2003 AQMP

#### 4.10 AQMP

The Project site is located within the SCAB, which is characterized by relatively poor air quality. The SCAQMD has jurisdiction over an approximately 10,743 square-mile area consisting of the four-county Basin and the Los Angeles County and Riverside County portions of what use to be referred to as the Southeast Desert Air Basin. In these areas, the SCAQMD is principally responsible for air pollution control, and works directly with the SCAG, county transportation commissions, local governments, as well as state and federal agencies to reduce emissions from stationary, mobile, and indirect sources to meet state and federal ambient air quality standards.

Currently, these state and federal air quality standards are exceeded in most parts of the SCAB. In response, the SCAQMD has adopted a series of AQMPs to meet the state and federal ambient air quality standards. AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy.

In March 2017, the SCAQMD released the *Final 2016 AQMP (2016 AQMP)*. The 2016 AQMP continues to evaluate current integrated strategies and control measures to meet the NAAQS, as well as explore new and innovative methods to reach its goals. Some of these approaches include utilizing incentive programs, recognizing existing co-benefit programs from other sectors, and developing a strategy with fair-share reductions at the federal, state, and local levels (31). Similar to the 2012 AQMP, the 2016 AQMP incorporates scientific and technological information and

<sup>9</sup> Based on the ratio of the CO standard (20.0 ppm) and the modeled value (4.6 ppm)



planning assumptions, including the *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016-2040 RTP/SCS)*, a planning document that supports the integration of land use and transportation to help the region meet the federal CAA requirements (19). The Project's consistency with the AQMP will be determined using the *2016 AQMP* as discussed below.

The 2022 AQMP is currently being developed by SCAQMD to address the EPA's strengthened ozone standard. Development of the 2022 AQMP is in its early stages and no formal timeline for completion and adoption is currently known.

Criteria for determining consistency with the AQMP are defined in Chapter 12, Section 12.2 and Section 12.3 of the *1993 CEQA Handbook* (32). These indicators are discussed below:

#### **4.10.1 CONSISTENCY CRITERION No. 1**

***The proposed Project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.***

The violations that Consistency Criterion No. 1 refer to are the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if regional or localized significance thresholds were exceeded.

##### ***Construction Impacts – Consistency Criterion 1***

Consistency Criterion No. 1 refers to violations of the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if localized or regional significance thresholds were exceeded. As evaluated, the Project's localized and regional construction-source emissions would not exceed applicable regional significance threshold and LST thresholds. As such, a less than significant impact is expected.

##### ***Operational Impacts – Consistency Criterion 1***

As evaluated, the Project's localized and regional operation-source emissions would not exceed applicable regional significance threshold and LST thresholds. As such, a less than significant impact is expected.

On the basis of the preceding discussion, the Project is determined to be consistent with the first criterion.

#### **4.10.2 CONSISTENCY CRITERION No. 2**

***The Project will not exceed the assumptions in the AQMP based on the years of Project build-out phase.***

The *2016 AQMP* demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under federal law. Growth projections from local general plans adopted by cities in the district are provided to the SCAG, which develops regional growth forecasts, which are then used to develop future air quality forecasts for the AQMP. Development

consistent with the growth projections in City of Ontario General Plan is considered to be consistent with the AQMP.

### **Construction Impacts – Consistency Criterion 2**

Peak day emissions generated by construction activities are largely independent of land use assignments, but rather are a function of development scope and maximum area of disturbance. Irrespective of the site's land use designation, development of the site to its maximum potential would likely occur, with disturbance of the entire site occurring during construction activities. As such, when considering that no emissions thresholds will be exceeded, a less than significant impact would result.

### **Operational Impacts – Consistency Criterion 2**

The Project is designated for Industrial uses within the Ontario General Plan. The Project site is designated for Industrial uses. The Industrial designation allows for a variety of light industrial uses, including warehousing/distribution, assembly, light manufacturing, research and development, storage, repair facilities, and supporting retail and professional office uses. This designation also accommodates activities that could potentially generate impacts, such as noise, dust, and other nuisances (33). The Project consist of a single 270,337-sf industrial building. As previously stated, this analysis assumes up to 27,034-sf high-cube cold storage use (10% of the total industrial building sf) and 243,303-sf of warehouse use (90% of total industrial building) which is consistent with the proposed Industrial designation and therefore, the Project does not propose or require amendment of the site's underlying land use designation.

Furthermore, the Project, as evaluated herein would not result in or cause exceedances of regional or localized air quality significance thresholds. Emissions generated by the Project are accurately represented in the AQMP emissions modeling, air pollution control strategies, and associated assumptions for emissions affecting the SCAB.

On the basis of the preceding discussion, the Project would not exceed the assumptions in the AQMP based on the years of Project build-out phase. The Project is therefore determined to be consistent with the second criterion.

### **AQMP CONSISTENCY CONCLUSION**

The Project would not result in or cause NAAQS or CAAQS violations. Additionally, the proposed Project is consistent with the land use and growth intensities reflected in the adopted General Plan. Furthermore, the Project would not exceed any applicable regional or local thresholds. As such, the Project is therefore considered to be consistent with the AQMP.

## **4.11 POTENTIAL IMPACTS TO SENSITIVE RECEPTORS**

The potential impact of Project-generated air pollutant emissions at sensitive receptors has also been considered. Results of the LST analysis indicate that the Project would not exceed the SCAQMD localized significance thresholds during construction. Therefore, sensitive receptors would not be exposed to substantial pollutant concentrations during Project construction.

Additionally, the Project would not exceed the SCAQMD localized significance thresholds during operational activity. Further Project traffic would not create or result in a CO “hotspot.” Therefore, sensitive receptors would not be exposed to substantial pollutant concentrations as the result of Project operations.

#### 4.11.1 FRIANT RANCH CASE

In December 2018, in the case of *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, the California Supreme Court held that an Environmental Impact Report’s (EIR) air quality analysis must meaningfully connect the identified air quality impacts to the human health consequences of those impacts, or meaningfully explain why that analysis cannot be provided.

Most local agencies, including the City of Ontario, lack the data to do their own assessment of potential health impacts from criteria air pollutant emissions, as would be required to establish customized, locally-specific thresholds of significance based on potential health impacts from an individual development project. The use of national or “generic” data to fill the gap of missing local data would not yield accurate results because such data does not capture local air patterns, local background conditions, or local population characteristics, all of which play a role in how a population experiences air pollution. Because it is impracticable to accurately isolate the exact cause of a human disease (for example, the role a particular air pollutant plays compared to the role of other allergens and genetics in causing asthma), existing scientific tools cannot accurately estimate health impacts of the Project’s air emissions without undue speculation. Instead, readers are directed to the Project’s air quality impact analysis above, which provides extensive information concerning the quantifiable and non-quantifiable health risks related to the Project’s construction and long-term operation.

Notwithstanding, this AQIA does evaluate the proposed Project’s localized impact to air quality for emissions of CO, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> by comparing the proposed project’s on-site emissions to the SCAQMD’s applicable LST thresholds. The LST analysis above determined that the Project would not result in emissions exceeding SCAQMD’s LSTs. Therefore, the proposed Project would not be expected to exceed the most stringent applicable federal or state ambient air quality standards for emissions of CO, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>.

As the Project’s emissions would comply with federal, state, and local air quality standards, the proposed Project’s emissions are not sufficiently high enough to use a regional modeling program to correlate health effects on a basin-wide level and would not provide a reliable indicator of health effects if modeled.

## 4.12 ODORS

The potential for the Project to generate objectionable odors has also been considered. Land uses generally associated with odor complaints include:

- Agricultural uses (livestock and farming)
- Wastewater treatment plants
- Food processing plants

- Chemical plants
- Composting operations
- Refineries
- Landfills
- Dairies
- Fiberglass molding facilities

The Project does not contain land uses typically associated with emitting objectionable odors. Potential odor sources associated with the proposed Project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities and the temporary storage of typical solid waste (refuse) associated with the proposed Project's (long-term operational) uses. Standard construction requirements would minimize odor impacts from construction. The construction odor emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction and is thus considered less than significant. It is expected that Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with current solid waste regulations. The proposed Project would also be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. Therefore, odors and other emissions (such as those leading to odors) associated with construction and operations activities of the proposed Project would be less than significant and no mitigation is required (34).

#### 4.13 CUMULATIVE IMPACTS

As previously shown in Table 2-3, the CAAQS designate the Project site as nonattainment for O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> while the NAAQS designates the Project site as nonattainment for O<sub>3</sub> and PM<sub>2.5</sub>.

The SCAQMD has published a report on how to address cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution* (35). In this report the SCAQMD clearly states (Page D-3):

*"...the SCAQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for TAC emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.*

*Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and*

*cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.”*

Therefore, this analysis assumes that individual projects that do not generate operational or construction emissions that exceed the SCAQMD’s recommended daily thresholds for project-specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which SCAB is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact. Alternatively, individual project-related construction and operational emissions that exceed SCAQMD thresholds for project-specific impacts would be considered cumulatively considerable.

#### **CONSTRUCTION IMPACTS**

The Project-specific evaluation of emissions presented in the preceding analysis demonstrates that proposed Project construction-source air pollutant emissions would not result in exceedances of regional thresholds. Therefore, proposed Project construction-source emissions would be considered less than significant on a Project-specific and cumulative basis.

#### **OPERATIONAL IMPACTS**

The Project-specific evaluation of emissions presented in the preceding analysis demonstrates that proposed Project operation-source air pollutant emissions would not result in exceedances of regional thresholds. Therefore, proposed Project operation-source emissions would be considered less than significant on a project-specific and cumulative basis.

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## 5 CERTIFICATIONS

The contents of this air study report represent an accurate depiction of the environmental impacts associated with the proposed 5355 East Airport Drive. The information contained in this air quality impact assessment report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at [hqureshi@urbanxroads.com](mailto:hqureshi@urbanxroads.com)

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Master of Science in Environmental Studies  
California State University, Fullerton • May 2010

Bachelor of Arts in Environmental Analysis and Design  
University of California, Irvine • June, 2006

### PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners  
AWMA – Air and Waste Management Association  
ASTM – American Society for Testing and Materials

### PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June 2011  
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April 2008  
Principles of Ambient Air Monitoring – CARB • August 2007  
AB2588 Regulatory Standards – Trinity Consultants • November 2006  
Air Dispersion Modeling – Lakes Environmental • June 2006

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**APPENDIX 2.1:**

**STATE/FEDERAL ATTAINMENT STATUS OF CRITERIA POLLUTANTS**

**APPENDIX C**

***MAPS AND TABLES OF AREA DESIGNATIONS FOR  
STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS***

## APPENDIX C

### MAPS AND TABLES OF AREA DESIGNATIONS FOR STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS

This attachment fulfills the requirement of Health and Safety Code section 40718 for CARB to publish maps that identify areas where one or more violations of any State ambient air quality standard (State standard) or national ambient air quality standard (national standard) have been measured. The national standards are those promulgated under section 109 of the federal Clean Air Act (42 U.S.C. 7409).

This attachment is divided into three parts. The first part comprises a table showing the levels, averaging times, and measurement methods for each of the State and national standards. This is followed by a section containing maps and tables showing the area designations for each pollutant for which there is a State standard in the California Code of Regulations, title 17, section 70200. The last section contains maps and tables showing the most current area designations for the national standards.

# Ambient Air Quality Standards

(Updated 5/4/16)

Pollutant	Averaging Time	California Standards <sup>1</sup>		National Standards <sup>2</sup>			
		Concentration <sup>3</sup>	Method <sup>4</sup>	Primary <sup>3,5</sup>	Secondary <sup>3,6</sup>	Method <sup>7</sup>	
<b>Ozone (O<sub>3</sub>)<sup>8</sup></b>	1 Hour	0.09 ppm (180 µg/m <sup>3</sup> )	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry	
	8 Hour	0.070 ppm (137 µg/m <sup>3</sup> )		0.070 ppm (137 µg/m <sup>3</sup> )			
<b>Respirable Particulate Matter (PM<sub>10</sub>)<sup>9</sup></b>	24 Hour	50 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	150 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>		—			
<b>Fine Particulate Matter (PM<sub>2.5</sub>)<sup>9</sup></b>	24 Hour	—	—	35 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	12.0 µg/m <sup>3</sup>			15 µg/m <sup>3</sup>
<b>Carbon Monoxide (CO)</b>	1 Hour	20 ppm (23 mg/m <sup>3</sup> )	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m <sup>3</sup> )	—	Non-Dispersive Infrared Photometry (NDIR)	
	8 Hour	9.0 ppm (10 mg/m <sup>3</sup> )		9 ppm (10 mg/m <sup>3</sup> )			
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m <sup>3</sup> )		—			—
<b>Nitrogen Dioxide (NO<sub>2</sub>)<sup>10</sup></b>	1 Hour	0.18 ppm (339 µg/m <sup>3</sup> )	Gas Phase Chemiluminescence	100 ppb (188 µg/m <sup>3</sup> )	—	Gas Phase Chemiluminescence	
	Annual Arithmetic Mean	0.030 ppm (57 µg/m <sup>3</sup> )		0.053 ppm (100 µg/m <sup>3</sup> )			Same as Primary Standard
<b>Sulfur Dioxide (SO<sub>2</sub>)<sup>11</sup></b>	1 Hour	0.25 ppm (655 µg/m <sup>3</sup> )	Ultraviolet Fluorescence	75 ppb (196 µg/m <sup>3</sup> )	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)	
	3 Hour	—		—			0.5 ppm (1300 µg/m <sup>3</sup> )
	24 Hour	0.04 ppm (105 µg/m <sup>3</sup> )		0.14 ppm (for certain areas) <sup>11</sup>			—
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) <sup>11</sup>			—
<b>Lead<sup>12, 13</sup></b>	30 Day Average	1.5 µg/m <sup>3</sup>	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption	
	Calendar Quarter	—		1.5 µg/m <sup>3</sup> (for certain areas) <sup>12</sup>			Same as Primary Standard
	Rolling 3-Month Average	—		0.15 µg/m <sup>3</sup>			
<b>Visibility Reducing Particles<sup>4</sup></b>	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	<b>No National Standards</b>			
<b>Sulfates</b>	24 Hour	25 µg/m <sup>3</sup>	Ion Chromatography				
<b>Hydrogen Sulfide</b>	1 Hour	0.03 ppm (42 µg/m <sup>3</sup> )	Ultraviolet Fluorescence				
<b>Vinyl Chloride<sup>12</sup></b>	24 Hour	0.01 ppm (26 µg/m <sup>3</sup> )	Gas Chromatography				

See footnotes on next page ...

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150  $\mu\text{g}/\text{m}^3$  is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent measurement method which can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15  $\mu\text{g}/\text{m}^3$  to 12.0  $\mu\text{g}/\text{m}^3$ . The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35  $\mu\text{g}/\text{m}^3$ , as was the annual secondary standard of 15  $\mu\text{g}/\text{m}^3$ . The existing 24-hour PM10 standards (primary and secondary) of 150  $\mu\text{g}/\text{m}^3$  also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
11. On June 2, 2010, a new 1-hour SO<sub>2</sub> standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO<sub>2</sub> national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.  
  
Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
12. The CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5  $\mu\text{g}/\text{m}^3$  as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, the CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.



## ***Area Designations for the State Ambient Air Quality Standards***

The following maps and tables show the area designations for each pollutant with a State standard set forth in the California Code of Regulations, title 17, section 60200. Each area is identified as attainment, nonattainment, nonattainment-transitional, or unclassified for each pollutant, as shown below:

Attainment	A
Nonattainment	N
Nonattainment-Transitional	NA-T
Unclassified	U

In general, CARB designates areas by air basin for pollutants with a regional impact and by county for pollutants with a more local impact. However, when there are areas within an air basin or county with distinctly different air quality deriving from sources and conditions not affecting the entire air basin or county, CARB may designate a smaller area. Generally, when boundaries of the designated area differ from the air basin or county boundaries, the description of the specific area is referenced at the bottom of the summary table.

FIGURE 1

**2020  
Area Designations for State  
Ambient Air Quality Standards  
OZONE**



Last Updated: October 2020  
Air Quality Planning and Science Division, CARB

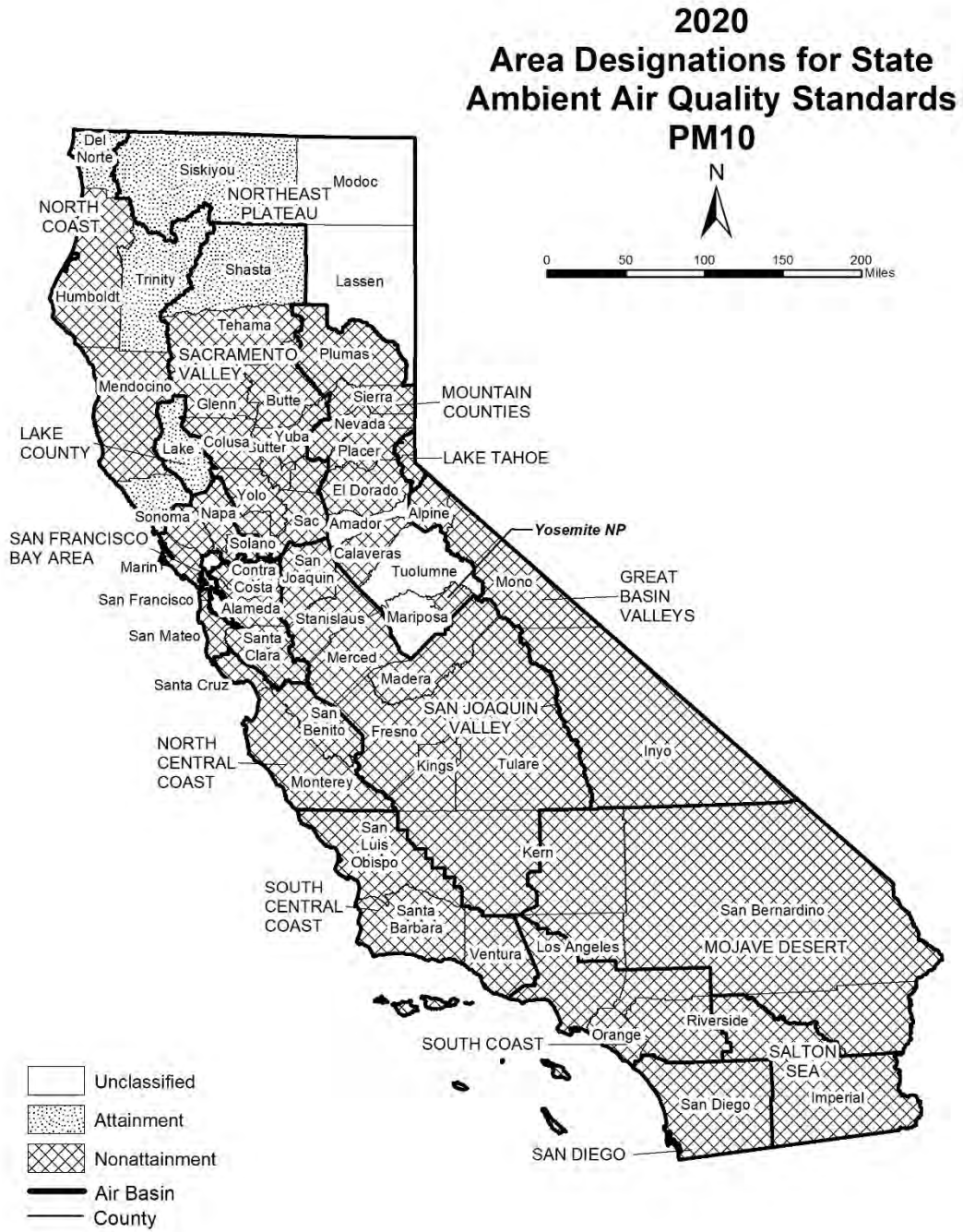
**TABLE 1**

**California Ambient Air Quality Standards  
Area Designations for Ozone <sup>1</sup>**

	N	NA-T	U	A
<b>GREAT BASIN VALLEYS AIR BASIN</b>				
Alpine County			X	
Inyo County	X			
Mono County	X			
<b>LAKE COUNTY AIR BASIN</b>				X
<b>LAKE TAHOE AIR BASIN</b>				X
<b>MOJAVE DESERT AIR BASIN</b>	X			
<b>MOUNTAIN COUNTIES AIR BASIN</b>				
Amador County		X		
Calaveras County	X			
El Dorado County (portion)	X			
Mariposa County	X			
Nevada County	X			
Placer County (portion)	X			
Plumas County			X	
Sierra County			X	
Tuolumne County	X			
<b>NORTH CENTRAL COAST AIR BASIN</b>				X
<b>NORTH COAST AIR BASIN</b>				X
<b>NORTHEAST PLATEAU AIR BASIN</b>				X
<b>SACRAMENTO VALLEY AIR BASIN</b>				
Colusa and Glenn Counties				X
Shasta County		X		
<b>Sutter/Yuba Counties</b>				
Sutter Buttes	X			
Remainder of Sutter County	X			
Yuba County	X			
Yolo/Solano Counties		X		
Remainder of Air Basin	X			
<b>SALTON SEA AIR BASIN</b>	X			
<b>SAN DIEGO AIR BASIN</b>	X			
<b>SAN FRANCISCO BAY AREA AIR BASIN</b>	X			
<b>SAN JOAQUIN VALLEY AIR BASIN</b>	X			
<b>SOUTH CENTRAL COAST AIR BASIN</b>				
San Luis Obispo County	X			
Santa Barbara County	X			
Ventura County	X			
<b>SOUTH COAST AIR BASIN</b>	X			

<sup>1</sup> AB 3048 (Olberg) and AB 2525 (Miller) signed into law in 1996, made changes to Health and Safety Code, section 40925.5. One of the changes allows nonattainment districts to become nonattainment-transitional for ozone by operation of law.

FIGURE 2



Last Updated: October 2020  
Air Quality Planning and Science Division, CARB

**TABLE 2**

**California Ambient Air Quality Standards  
Area Designation for Suspended Particulate Matter (PM<sub>10</sub>)**

	N	U	A
GREAT BASIN VALLEYS AIR BASIN	X		
LAKE COUNTY AIR BASIN			X
LAKE TAHOE AIR BASIN	X		
MOJAVE DESERT AIR BASIN	X		
MOUNTAIN COUNTIES AIR BASIN			
Amador County		X	
Calaveras County	X		
El Dorado County (portion)	X		
Mariposa County			
- Yosemite National Park	X		
- Remainder of County		X	
Nevada County	X		
Placer County (portion)	X		
Plumas County	X		
Sierra County	X		
Tuolumne County		X	

	N	U	A
NORTH CENTRAL COAST AIR BASIN	X		
NORTH COAST AIR BASIN			
Del Norte, Sonoma (portion) and Trinity Counties			X
Remainder of Air Basin	X		
NORTHEAST PLATEAU AIR BASIN			
Siskiyou County			X
Remainder of Air Basin		X	
SACRAMENTO VALLEY AIR BASIN			
Shasta County			X
Remainder of Air Basin	X		
SALTON SEA AIR BASIN	X		
SAN DIEGO AIR BASIN	X		
SAN FRANCISCO BAY AREA AIR BASIN	X		
SAN JOAQUIN VALLEY AIR BASIN	X		
SOUTH CENTRAL COAST AIR BASIN	X		
SOUTH COAST AIR BASIN	X		

FIGURE 3

2020  
**Area Designations for State  
 Ambient Air Quality Standards  
 PM<sub>2.5</sub>**



Last Updated: October 2020  
 Air Quality Planning and Science Division, CARB

**TABLE 3**

**California Ambient Air Quality Standards  
Area Designations for Fine Particulate Matter (PM<sub>2.5</sub>)**

	N	U	A
GREAT BASIN VALLEYS AIR BASIN			X
LAKE COUNTY AIR BASIN			X
LAKE TAHOE AIR BASIN			X
MOJAVE DESERT AIR BASIN			
San Bernardino County			
- County portion of federal Southeast Desert Modified AQMA for Ozone <sup>1</sup>			X
Remainder of Air Basin			X
MOUNTAIN COUNTIES AIR BASIN			
Plumas County			
- Portola Valley <sup>2</sup>	X		
Remainder of Air Basin		X	
NORTH CENTRAL COAST AIR BASIN			X
NORTH COAST AIR BASIN			X
NORTHEAST PLATEAU AIR BASIN			X
SACRAMENTO VALLEY AIR BASIN			
Butte County	X		
Colusa County			X
Glenn County			X
Placer County (portion)			X
Sacramento County			X
Shasta County			X
Sutter and Yuba Counties			X
Remainder of Air Basin		X	

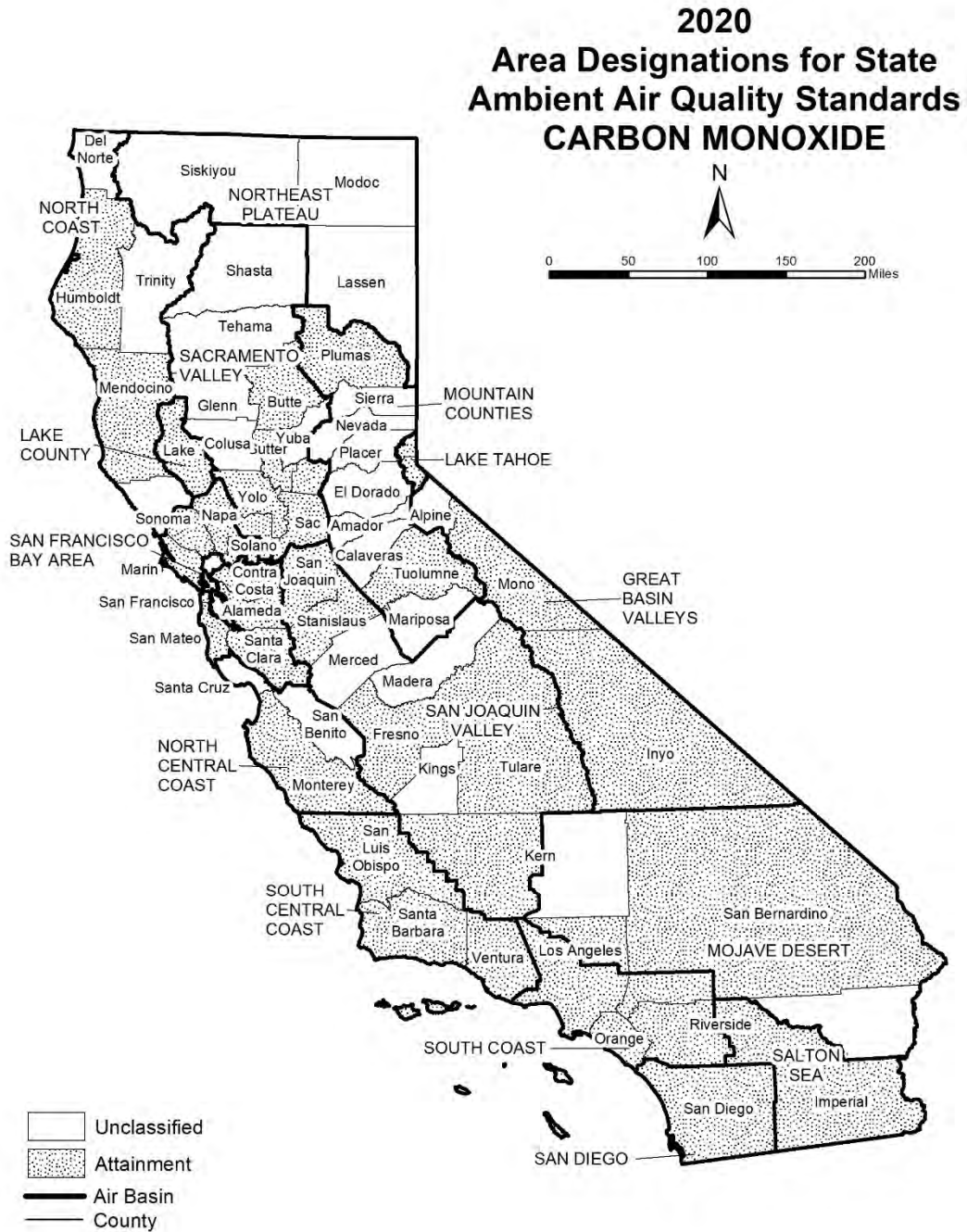
	N	U	A
SALTON SEA AIR BASIN			
Imperial County			
- City of Calexico <sup>3</sup>	X		
Remainder of Air Basin			X
SAN DIEGO AIR BASIN	X		
SAN FRANCISCO BAY AREA AIR BASIN	X		
SAN JOAQUIN VALLEY AIR BASIN	X		
SOUTH CENTRAL COAST AIR BASIN			
San Luis Obispo County			X
Santa Barbara County		X	
Ventura County			X
SOUTH COAST AIR BASIN	X		

<sup>1</sup> California Code of Regulations, title 17, section 60200(b)

<sup>2</sup> California Code of Regulations, title 17, section 60200(c)

<sup>3</sup> California Code of Regulations, title 17, section 60200(a)

FIGURE 4



Last Updated: October 2020  
Air Quality Planning and Science Division, CARB



**TABLE 4**

**California Ambient Air Quality Standards  
Area Designation for Carbon Monoxide\***

	N	NA-T	U	A		N	NA-T	U	A
GREAT BASIN VALLEYS AIR BASIN					SACRAMENTO VALLEY AIR BASIN				
Alpine County			X		Butte County				X
Inyo County				X	Colusa County			X	
Mono County				X	Glenn County			X	
LAKE COUNTY AIR BASIN				X	Placer County (portion)				X
LAKE TAHOE AIR BASIN				X	Sacramento County				X
MOJAVE DESERT AIR BASIN					Shasta County			X	
Kern County (portion)			X		Solano County (portion)				X
Los Angeles County (portion)				X	Sutter County				X
Riverside County (portion)			X		Tehama County			X	
San Bernardino County (portion)				X	Yolo County				X
MOUNTAIN COUNTIES AIR BASIN					Yuba County			X	
Amador County			X		SALTON SEA AIR BASIN				X
Calaveras County			X		SAN DIEGO AIR BASIN				X
El Dorado County (portion)			X		SAN FRANCISCO BAY AREA AIR BASIN				X
Mariposa County			X		SAN JOAQUIN VALLEY AIR BASIN				
Nevada County			X		Fresno County				X
Placer County (portion)			X		Kern County (portion)				X
Plumas County				X	Kings County			X	
Sierra County			X		Madera County			X	
Tuolumne County				X	Merced County			X	
NORTH CENTRAL COAST AIR BASIN					San Joaquin County				X
Monterey County				X	Stanislaus County				X
San Benito County			X		Tulare County				X
Santa Cruz County			X		SOUTH CENTRAL COAST AIR BASIN				X
NORTH COAST AIR BASIN					SOUTH COAST AIR BASIN				X
Del Norte County			X						
Humboldt County				X					
Mendocino County				X					
Sonoma County (portion)			X						
Trinity County			X						
NORTHEAST PLATEAU AIR BASIN			X						

\* The area designated for carbon monoxide is a county or portion of a county

FIGURE 5

2020  
 Area Designations for State  
 Ambient Air Quality Standards  
 NITROGEN DIOXIDE



Last Updated: October 2020  
 Air Quality Planning and Science Division, CARB

**TABLE 5**

**California Ambient Air Quality Standards  
Area Designations for Nitrogen Dioxide**

	<b>N</b>	<b>U</b>	<b>A</b>
GREAT BASIN VALLEYS AIR BASIN			X
LAKE COUNTY AIR BASIN			X
LAKE TAHOE AIR BASIN			X
MOJAVE DESERT AIR BASIN			X
MOUNTAIN COUNTIES AIR BASIN			X
NORTH CENTRAL COAST AIR BASIN			X
NORTH COAST AIR BASIN			X
NORTHEAST PLATEAU AIR BASIN			X

	<b>N</b>	<b>U</b>	<b>A</b>
SACRAMENTO VALLEY AIR BASIN			X
SALTON SEA AIR BASIN			X
SAN DIEGO AIR BASIN			X
SAN FRANCISCO BAY AREA AIR BASIN			X
SAN JOAQUIN VALLEY AIR BASIN			X
SOUTH CENTRAL COAST AIR BASIN			X
SOUTH COAST AIR BASIN			
CA 60 Near-road Portion of San Bernardino, Riverside, and Los Angeles Counties	X		
Remainder of Air Basin			X

FIGURE 6



Last Updated: October 2020  
Air Quality Planning and Science Division, CARB

**TABLE 6**

**California Ambient Air Quality Standards  
Area Designation for Sulfur Dioxide\***

	<b>N</b>	<b>A</b>		<b>N</b>	<b>A</b>
GREAT BASIN VALLEYS AIR BASIN		X	SACRAMENTO VALLEY AIR BASIN		X
LAKE COUNTY AIR BASIN		X	SALTON SEA AIR BASIN		X
LAKE TAHOE AIR BASIN		X	SAN DIEGO AIR BASIN		X
MOJAVE DESERT AIR BASIN		X	SAN FRANCISCO BAY AREA AIR BASIN		X
MOUNTAIN COUNTIES AIR BASIN		X	SAN JOAQUIN VALLEY AIR BASIN		X
NORTH CENTRAL COAST AIR BASIN		X	SOUTH CENTRAL COAST AIR BASIN		X
NORTH COAST AIR BASIN		X	SOUTH COAST AIR BASIN		X
NORTHEAST PLATEAU AIR BASIN		X			

\* The area designated for sulfur dioxide is a county or portion of a county. Since all areas in the State are in attainment for this standard, air basins are indicated here for simplicity.

FIGURE 7

**2020  
Area Designations for State  
Ambient Air Quality Standards  
SULFATES**



Last Updated: October 2020  
 Air Quality Planning and Science Division, CARB

**TABLE 7**

**California Ambient Air Quality Standards  
Area Designation for Sulfates**

	<b>N</b>	<b>U</b>	<b>A</b>
GREAT BASIN VALLEYS AIR BASIN			X
LAKE COUNTY AIR BASIN			X
LAKE TAHOE AIR BASIN			X
MOJAVE DESERT AIR BASIN			X
MOUNTAIN COUNTIES AIR BASIN			X
NORTH CENTRAL COAST AIR BASIN			X
NORTH COAST AIR BASIN			X
NORTHEAST PLATEAU AIR BASIN			X

	<b>N</b>	<b>U</b>	<b>A</b>
SACRAMENTO VALLEY AIR BASIN			X
SALTON SEA AIR BASIN			X
SAN DIEGO AIR BASIN			X
SAN FRANCISCO BAY AREA AIR BASIN			X
SAN JOAQUIN VALLEY AIR BASIN			X
SOUTH CENTRAL COAST AIR BASIN			X
SOUTH COAST AIR BASIN			X

FIGURE 8

2020  
Area Designations for State  
Ambient Air Quality Standards  
LEAD



Last Updated: October 2020  
Air Quality Planning and Science Division, CARB



**TABLE 8**

**California Ambient Air Quality Standards  
Area Designations for Lead (particulate)\***

	N	U	A
GREAT BASIN VALLEYS AIR BASIN			X
LAKE COUNTY AIR BASIN			X
LAKE TAHOE AIR BASIN			X
MOJAVE DESERT AIR BASIN			X
MOUNTAIN COUNTIES AIR BASIN			X
NORTH CENTRAL COAST AIR BASIN			X
NORTH COAST AIR BASIN			X
NORTHEAST PLATEAU AIR BASIN			X
SACRAMENTO VALLEY AIR BASIN			X

	N	U	A
SALTON SEA AIR BASIN			X
SAN DIEGO AIR BASIN			X
SAN FRANCISCO BAY AREA AIR BASIN			X
SAN JOAQUIN VALLEY AIR BASIN			X
SOUTH CENTRAL COAST AIR BASIN			X
SOUTH COAST AIR BASIN			X

\* The area designated for lead is a county or portion of a county. Since all areas in the State are in attainment for this standard, air basins are indicated here for simplicity.

FIGURE 9

2020  
**Area Designations for State  
 Ambient Air Quality Standards  
 HYDROGEN SULFIDE**



Last Updated: October 2020  
 Air Quality Planning and Science Division, CARB

**TABLE 9**

**California Ambient Air Quality Standards  
Area Designation for Hydrogen Sulfide\***

	N	NA-T	U	A
<b>GREAT BASIN VALLEYS AIR BASIN</b>				
Alpine County			X	
Inyo County				X
Mono County				X
<b>LAKE COUNTY AIR BASIN</b>				X
<b>LAKE TAHOE AIR BASIN</b>			X	
<b>MOJAVE DESERT AIR BASIN</b>				
Kern County (portion)			X	
Los Angeles County (portion)			X	
Riverside County (portion)			X	
San Bernardino County (portion)				
- Searles Valley Planning Area <sup>1</sup>	X			
- Remainder of County			X	
<b>MOUNTAIN COUNTIES AIR BASIN</b>				
Amador County				
- City of Sutter Creek	X			
- Remainder of County			X	
Calaveras County			X	
El Dorado County (portion)			X	
Mariposa County			X	
Nevada County			X	
Placer County (portion)			X	
Plumas County			X	
Sierra County			X	
Tuolumne County			X	
<b>NORTH CENTRAL COAST AIR BASIN</b>			X	
<b>NORTH COAST AIR BASIN</b>				
Del Norte County			X	
Humboldt County				X
Mendocino County			X	
Sonoma County (portion)				
- Geysler Geothermal Area <sup>2</sup>				X
- Remainder of County			X	
Trinity County			X	
<b>NORTHEAST PLATEAU AIR BASIN</b>			X	
<b>SACRAMENTO VALLEY AIR BASIN</b>			X	
<b>SALTON SEA AIR BASIN</b>			X	
<b>SAN DIEGO AIR BASIN</b>			X	
<b>SAN FRANCISCO BAY AREA AIR BASIN</b>			X	
<b>SAN JOAQUIN VALLEY AIR BASIN</b>			X	
<b>SOUTH CENTRAL COAST AIR BASIN</b>				
San Luis Obispo County				X
Santa Barbara County				X
Ventura County			X	
<b>SOUTH COAST AIR BASIN</b>			X	

\* The area designated for hydrogen sulfide is a county or portion of a county

<sup>1</sup> 52 Federal Register 29384 (August 7, 1987)

<sup>2</sup> California Code of Regulations, title 17, section 60200(d)

FIGURE 10

**2020**  
**Area Designations for State**  
**Ambient Air Quality Standards**  
**VISIBILITY REDUCING PARTICLES**



Last Updated: October 2020  
 Air Quality Planning and Science Division, CARB

**TABLE 10**

**California Ambient Air Quality Standards  
Area Designation for Visibility Reducing Particles**

	N	NA-T	U	A
GREAT BASIN VALLEYS AIR BASIN			X	
LAKE COUNTY AIR BASIN				X
LAKE TAHOE AIR BASIN			X	
MOJAVE DESERT AIR BASIN			X	
MOUNTAIN COUNTIES AIR BASIN			X	
NORTH CENTRAL COAST AIR BASIN			X	
NORTH COAST AIR BASIN			X	
NORTHEAST PLATEAU AIR BASIN			X	

	N	NA-T	U	A
SACRAMENTO VALLEY AIR BASIN			X	
SALTON SEA AIR BASIN			X	
SAN DIEGO AIR BASIN			X	
SAN FRANCISCO BAY AREA AIR BASIN			X	
SAN JOAQUIN VALLEY AIR BASIN			X	
SOUTH CENTRAL COAST AIR BASIN			X	
SOUTH COAST AIR BASIN			X	

## ***Area Designations for the National Ambient Air Quality Standards***

The following maps and tables show the area designations for each pollutant with a national ambient air quality standard. Additional information about the federal area designations is available on the U.S. EPA website:

<https://www.epa.gov/green-book>

Over the last several years, U.S. EPA has been reviewing the levels of the various national standards. The agency has already promulgated new standard levels for some pollutants and is considering revising the levels for others. Information about the status of these reviews is available on the U.S. EPA website:

<https://www.epa.gov/criteria-air-pollutants>

### Designation Categories

*Suspended Particulate Matter (PM<sub>10</sub>)*. The U.S. EPA uses three categories to designate areas with respect to PM<sub>10</sub>:

- Attainment (A)
- Nonattainment (N)
- Unclassifiable (U)

*Ozone, Fine Suspended Particulate Matter (PM<sub>2.5</sub>), Carbon Monoxide (CO), and Nitrogen Dioxide (NO<sub>2</sub>)*. The U.S. EPA uses two categories to designate areas with respect to these standards:

- Nonattainment (N)
- Unclassifiable/Attainment (U/A)

The national 1-hour ozone standard was revoked effective June 15, 2005, and the area designations map reflects the 2015 national 8-hour ozone standard of 0.070 ppm. Area designations were finalized on August 3, 2018.

On December 14, 2012, the U.S. EPA established a new national annual primary PM<sub>2.5</sub> standard of 12.0 µg/m<sup>3</sup>. Area designations were finalized in December 2014. The current designation map reflects the most recently revised (2012) annual average standard of 12.0 µg/m<sup>3</sup> as well as the 24-hour standard of 35 µg/m<sup>3</sup>, revised in 2006.

On January 22, 2010, the U.S. EPA established a new national 1-hour NO<sub>2</sub> standard of 100 parts per billion (ppb) and retained the annual average standard of 53 ppb. Designations for the primary NO<sub>2</sub> standard became effective on February 29, 2012. All areas of California meet this standard.

*Sulfur Dioxide (SO<sub>2</sub>)*. The U.S. EPA uses three categories to designate areas with respect to the 24-hour and annual average sulfur dioxide standards. These designation categories are:

- Nonattainment (N),
- Unclassifiable (U), and
- Unclassifiable/Attainment (U/A).

On June 2, 2010, the U.S. EPA established a new primary 1-hour SO<sub>2</sub> standard of 75 parts per billion (ppb). At the same time, U.S. EPA revoked the 24-hour and annual

average standards. Area designations for the 1-hour SO<sub>2</sub> standard were finalized on December 21, 2017 and are reflected in the area designations map.

*Lead (particulate).* The U.S. EPA promulgated a new rolling 3-month average lead standard in October 2008 of 0.15 µg/m<sup>3</sup>. Designations were made for this standard in November 2010.

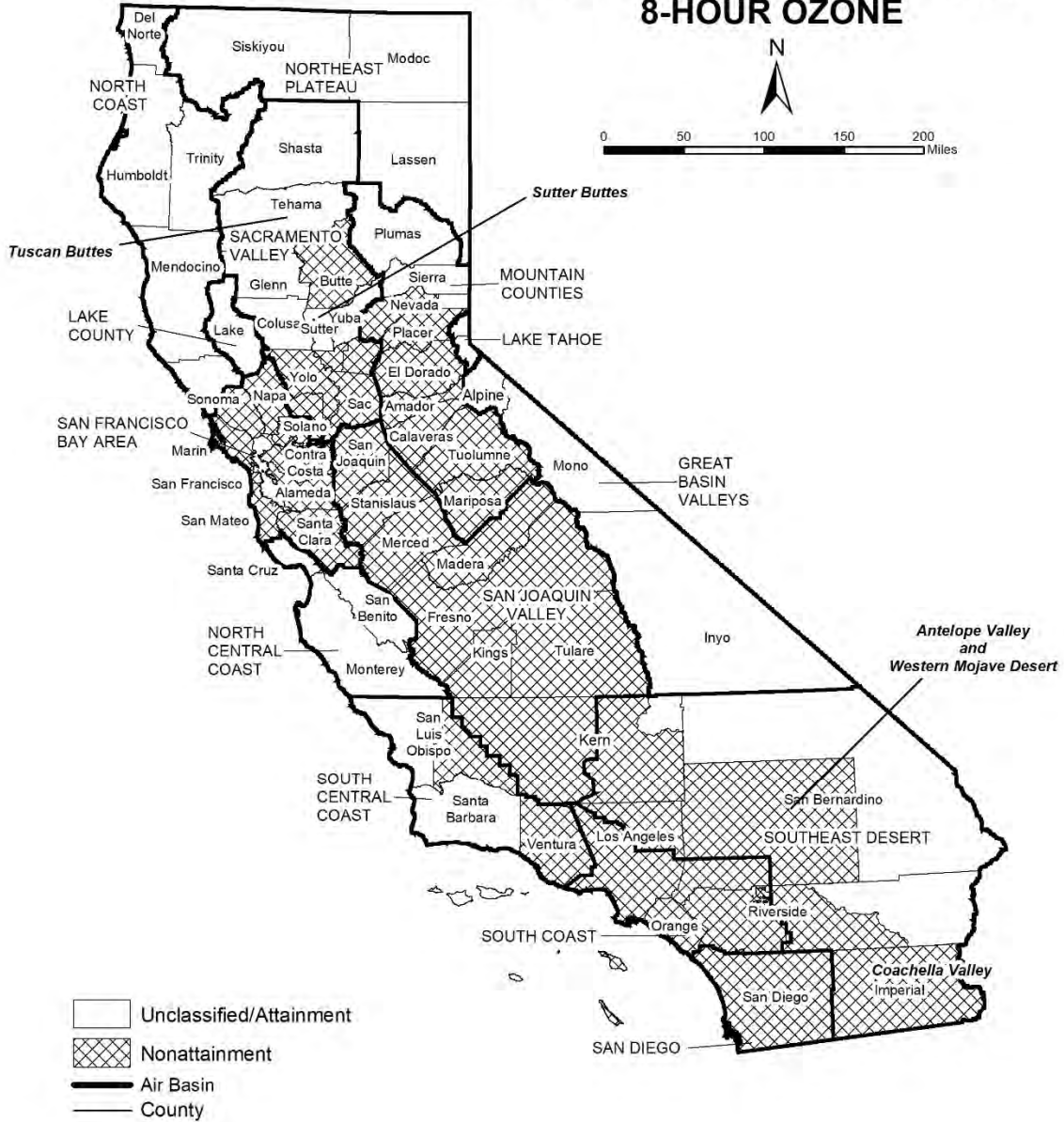
### Designation Areas

From time to time, the boundaries of the California air basins have been changed to facilitate the planning process. CARB generally initiates these changes, and they are not always reflected in the U.S. EPA's area designations. For purposes of consistency, the maps in this attachment reflect area designation boundaries and nomenclature as promulgated by the U.S. EPA. In some cases, these may not be the same as those adopted by CARB. For example, the national area designations reflect the former Southeast Desert Air Basin. In accordance with Health and Safety Code section 39606.1, CARB redefined this area in 1996 to be the Mojave Desert Air Basin and Salton Sea Air Basin. The definitions and boundaries for all areas designated for the national standards can be found in Title 40, Code of Federal Regulations (CFR), Chapter I, Subchapter C, Part 81.305. They are available on the web at:

[https://ecfr.io/Title-40/se40.20.81\\_1305](https://ecfr.io/Title-40/se40.20.81_1305)

FIGURE 11

### Area Designations for National Ambient Air Quality Standards 8-HOUR OZONE



Source Date:  
August 2019  
Air Quality Planning and Science Division



**TABLE 11**

**National Ambient Air Quality Standards  
Area Designations for 8-Hour Ozone\***

	N	U/A
GREAT BASIN VALLEYS AIR BASIN		X
LAKE COUNTY AIR BASIN		X
LAKE TAHOE AIR BASIN		X
MOUNTAIN COUNTIES AIR BASIN		
Amador County	X	
Calaveras County	X	
El Dorado County (portion) <sup>1</sup>	X	
Mariposa County	X	
Nevada County		
- Western Nevada County	X	
- Remainder of County		X
Placer County (portion) <sup>1</sup>	X	
Plumas County		X
Sierra County		X
Tuolumne County	X	
NORTH CENTRAL COAST AIR BASIN		X
NORTH COAST AIR BASIN		X
NORTHEAST PLATEAU AIR BASIN		X
SACRAMENTO VALLEY AIR BASIN		
Butte County	X	
Colusa County		X
Glenn County		X
Sacramento Metro Area <sup>1</sup>	X	
Shasta County		X
Sutter County		
- Sutter Buttes	X	
- Southern portion of Sutter County <sup>1</sup>	X	
- Remainder of Sutter County		X
Tehama County		
- Tuscan Buttes	X	
- Remainder of Tehama County		X

	N	U/A
SACRAMENTO VALLEY AIR BASIN (cont.)		
Yolo County <sup>1</sup>	X	
Yuba County		X
SAN DIEGO COUNTY	X	
SAN FRANCISCO BAY AREA AIR BASIN	X	
SAN JOAQUIN VALLEY AIR BASIN	X	
SOUTH CENTRAL COAST AIR BASIN <sup>2</sup>		
San Luis Obispo County		
- Eastern San Luis Obispo County	X	
- Remainder of County		X
Santa Barbara County		X
Ventura County		
- Area excluding Anacapa and San Nicolas Islands	X	
- Channel Islands <sup>2</sup>		X
SOUTH COAST AIR BASIN <sup>2</sup>	X	
SOUTHEAST DESERT AIR BASIN		
Kern County (portion)	X	
- Indian Wells Valley		X
Imperial County	X	
Los Angeles County (portion)	X	
Riverside County (portion)		
- Coachella Valley	X	
- Non-AQMA portion		X
San Bernardino County		
- Western portion (AQMA)	X	
- Eastern portion (non-AQMA)		X

\* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.

NOTE: This map and table reflect the 2015 8-hour ozone standard of 0.070 ppm.

<sup>1</sup> For this purpose, the Sacramento Metro Area comprises all of Sacramento and Yolo Counties, the Sacramento Valley Air Basin portion of Solano County, the southern portion of Sutter County, and the Sacramento Valley and Mountain Counties Air Basins portions of Placer and El Dorado counties.

<sup>2</sup> South Central Coast Air Basin Channel Islands:

Santa Barbara County includes Santa Cruz, San Miguel, Santa Rosa, and Santa Barbara Islands.

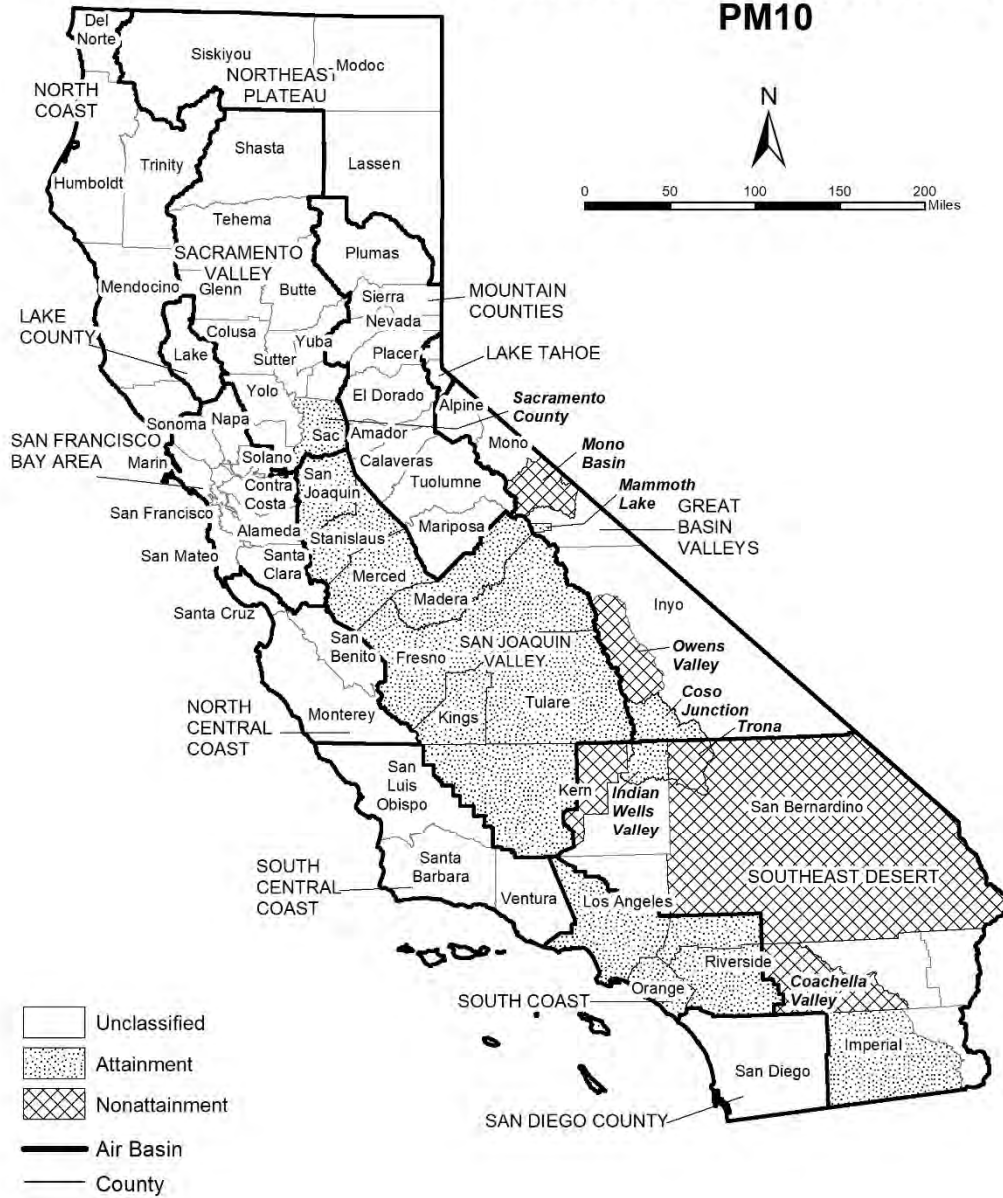
Ventura County includes Anacapa and San Nicolas Islands.

South Coast Air Basin:

Los Angeles County includes San Clemente and Santa Catalina Islands.

FIGURE 12

### Area Designations for National Ambient Air Quality Standards PM10



Source Date:  
 October 2020  
 Air Quality Planning and Science Division

**TABLE 12**

**National Ambient Air Quality Standards  
Area Designations for Suspended Particulate Matter (PM<sub>10</sub>)\***

	N	U	A
GREAT BASIN VALLEYS AIR BASIN			
Alpine County		X	
Inyo County			
- Owens Valley Planning Area	X		
- Coso Junction			X
- Remainder of County		X	
Mono County			
- Mammoth Lake Planning Area			X
- Mono Lake Basin	X		
- Remainder of County		X	
LAKE COUNTY AIR BASIN		X	
LAKE TAHOE AIR BASIN		X	
MOUNTAIN COUNTIES AIR BASIN			
Placer County (portion) <sup>1</sup>		X	
Remainder of Air Basin		X	
NORTH CENTRAL COAST AIR BASIN		X	
NORTH COAST AIR BASIN		X	
NORTHEAST PLATEAU AIR BASIN		X	
SACRAMENTO VALLEY AIR BASIN			
Butte County		X	
Colusa County		X	
Glenn County		X	
Placer County (portion) <sup>1</sup>		X	
Sacramento County <sup>2</sup>			X
Shasta County		X	
Solano County (portion)		X	
Sutter County		X	
Tehama County		X	
Yolo County		X	
Yuba County		X	

	N	U	A
SAN DIEGO COUNTY		X	
SAN FRANCISCO BAY AREA AIR BASIN		X	
SAN JOAQUIN VALLEY AIR BASIN			X
SOUTH CENTRAL COAST AIR BASIN		X	
SOUTH COAST AIR BASIN			X
SOUTHEAST DESERT AIR BASIN			
Eastern Kern County			
- Indian Wells Valley			X
- Portion within San Joaquin Valley Planning Area	X		
- Remainder of County		X	
Imperial County			
- Imperial Valley Planning Area <sup>3</sup>			X
- Remainder of County		X	
Los Angeles County (portion)		X	
Riverside County (portion)			
- Coachella Valley <sup>4</sup>	X		
- Non-AQMA portion		X	
San Bernardino County			
- Trona	X		
- Remainder of County	X		

\* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.

<sup>1</sup> U.S. EPA designation puts the Sacramento Valley Air Basin portion of Placer County in the Mountain Counties Air Basin.

<sup>2</sup> Air quality in Sacramento County meets the national PM<sub>10</sub> standards. The request for redesignation to attainment was approved by U.S. EPA in September 2013.

<sup>3</sup> The request for redesignation to attainment for the Imperial Valley Planning Area was approved by U.S. EPA and in September 2020, effective October 2020.

<sup>4</sup> Air quality in Coachella Valley meets the national PM<sub>10</sub> standards. A request for redesignation to attainment has been submitted to U.S. EPA.

FIGURE 13

### Area Designations for National Ambient Air Quality Standards PM2.5



Source Date:  
August 2019  
Air Quality Planning and Science Division

**TABLE 13**

**National Ambient Air Quality Standards  
Area Designations for Fine Particulate Matter (PM<sub>2.5</sub>)**

	N	U/A
GREAT BASIN VALLEYS AIR BASIN		X
LAKE COUNTY AIR BASIN		X
LAKE TAHOE AIR BASIN		X
MOUNTAIN COUNTIES AIR BASIN		
Plumas County		
- Portola Valley Portion of Plumas	X	
- Remainder of Plumas County		X
Remainder of Air Basin		X
NORTH CENTRAL COAST AIR BASIN		X
NORTH COAST AIR BASIN		X
NORTHEAST PLATEAU AIR BASIN		X
SACRAMENTO VALLEY AIR BASIN		
Sacramento Metro Area <sup>1</sup>	X	
Sutter County		X
Yuba County (portion)		X
Remainder of Air Basin		X

	N	U/A
SAN DIEGO COUNTY		X
SAN FRANCISCO BAY AREA AIR BASIN <sup>2</sup>	X	
SAN JOAQUIN VALLEY AIR BASIN	X	
SOUTH CENTRAL COAST AIR BASIN		X
SOUTH COAST AIR BASIN <sup>3</sup>	X	
SOUTHEAST DESERT AIR BASIN		
Imperial County (portion) <sup>4</sup>	X	
Remainder of Air Basin		X

\* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305. This map reflects the 2006 24-hour PM<sub>2.5</sub> standard as well as the 1997 and 2012 PM<sub>2.5</sub> annual standards.

<sup>1</sup> For this purpose, Sacramento Metro Area comprises all of Sacramento and portions of El Dorado, Placer, Solano, and Yolo Counties. Air quality in this area meets the national PM<sub>2.5</sub> standards. A Determination of Attainment for the 2006 24-hour PM<sub>2.5</sub> standard was made by U.S. EPA in June 2017.

<sup>2</sup> Air quality in this area meets the national PM<sub>2.5</sub> standards. A Determination of Attainment for the 2006 24-hour PM<sub>2.5</sub> standard was made by U.S. EPA in June 2017.

<sup>3</sup> Those lands of the Santa Rosa Band of Cahulla Mission Indians in Riverside County are designated Unclassifiable/Attainment.

<sup>4</sup> That portion of Imperial County encompassing the urban and surrounding areas of Brawley, Calexico, El Centro, Heber, Holtville, Imperial, Seeley, and Westmorland. Air quality in this area meets the national PM<sub>2.5</sub> standards. A Determination of Attainment for the 2006 24-hour PM<sub>2.5</sub> standard was made by U.S. EPA in June 2017.

FIGURE 14

**Area Designations for National Ambient Air Quality Standards  
CARBON MONOXIDE**



Source Date:  
August 2019  
Air Quality Planning and Science Division

**TABLE 14**

**National Ambient Air Quality Standards  
Area Designations for Carbon Monoxide\***

	N	U/A		N	U/A
GREAT BASIN VALLEYS AIR BASIN		X	SACRAMENTO VALLEY AIR BASIN		X
LAKE COUNTY AIR BASIN		X	SAN DIEGO COUNTY		X
LAKE TAHOE AIR BASIN		X	SAN FRANCISCO BAY AREA AIR BASIN		X
MOUNTAIN COUNTIES AIR BASIN		X	SAN JOAQUIN VALLEY AIR BASIN		X
NORTH CENTRAL COAST AIR BASIN		X	SOUTH CENTRAL COAST AIR BASIN		X
NORTH COAST AIR BASIN		X	SOUTH COAST AIR BASIN		X
NORTHEAST PLATEAU AIR BASIN		X	SOUTHEAST DESERT AIR BASIN		X

\* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.

FIGURE 15

**Area Designations for National Ambient Air Quality Standards  
NITROGEN DIOXIDE**



Source Date:  
 August 2019  
 Air Quality Planning and Science Division



**TABLE 15**

**National Ambient Air Quality Standards  
Area Designations for Nitrogen Dioxide\***

	<b>N</b>	<b>U/A</b>
GREAT BASIN VALLEYS AIR BASIN		X
LAKE COUNTY AIR BASIN		X
LAKE TAHOE AIR BASIN		X
MOUNTAIN COUNTIES AIR BASIN		X
NORTH CENTRAL COAST AIR BASIN		X
NORTH COAST AIR BASIN		X
NORTHEAST PLATEAU AIR BASIN		X

	<b>N</b>	<b>U/A</b>
SACRAMENTO VALLEY AIR BASIN		X
SAN DIEGO COUNTY		X
SAN FRANCISCO BAY AREA AIR BASIN		X
SAN JOAQUIN VALLEY AIR BASIN		X
SOUTH CENTRAL COAST AIR BASIN		X
SOUTH COAST AIR BASIN		X
SOUTHEAST DESERT AIR BASIN		X

\* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.

FIGURE 16

### Area Designations for National Ambient Air Quality Standards SULFUR DIOXIDE



Source Date:  
August 2019  
Air Quality Planning and Science Division

**TABLE 16**

**National Ambient Air Quality Standards  
Area Designations for Sulfur Dioxide\***

	N	U/A
GREAT BASIN VALLEYS AIR BASIN		X
LAKE COUNTY AIR BASIN		X
LAKE TAHOE AIR BASIN		X
MOUNTAIN COUNTIES AIR BASIN		X
NORTH CENTRAL COAST AIR BASIN		X
NORTH COAST AIR BASIN		X
NORTHEAST PLATEAU AIR BASIN		X
SACRAMENTO VALLEY AIR BASIN		X
SAN DIEGO COUNTY		X
SAN FRANCISCO BAY AREA AIR BASIN		X
SAN JOAQUIN VALLEY AIR BASIN		
Fresno County		X
Kern County (portion)		X
Kings County		X
Madera County		X
Merced County		X
San Joaquin County		X
Stanislaus County		X
Tulare County		X

	N	U/A
SOUTH CENTRAL COAST AIR BASIN		
San Luis Obispo County		X
Santa Barbara County		X
Ventura County		X
Channel Islands <sup>1</sup>		X
SOUTH COAST AIR BASIN		X
SOUTHEAST DESERT AIR BASIN		
Imperial County		X
Remainder of Air Basin		X

\* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.  
NOTE: This map and table reflect the 2010 1-hour SO<sub>2</sub> standard of 75 ppb.

<sup>1</sup> South Central Coast Air Basin Channel Islands:

Santa Barbara County includes Santa Cruz, San Miguel, Santa Rosa, and Santa Barbara Islands.

Ventura County includes Anacapa and San Nicolas Islands.

Note that the San Clemente and Santa Catalina Islands are considered part of Los Angeles County, and therefore, are included as part of the South Coast Air Basin.

FIGURE 17

### Area Designations for National Ambient Air Quality Standards LEAD



**TABLE 17**

**National Ambient Air Quality Standards  
Area Designations for Lead (particulate)**

	N	U/A		N	U/A
GREAT BASIN VALLEYS AIR BASIN		X	SAN DIEGO COUNTY		X
LAKE COUNTY AIR BASIN		X	SAN FRANCISCO BAY AREA AIR BASIN		X
LAKE TAHOE AIR BASIN		X	SAN JOAQUIN VALLEY AIR BASIN		X
MOUNTAIN COUNTIES AIR BASIN		X	SOUTH CENTRAL COAST AIR BASIN		X
NORTH CENTRAL COAST AIR BASIN		X	SOUTH COAST AIR BASIN		
NORTH COAST AIR BASIN		X	Los Angeles County (portion) <sup>1</sup>	X	
NORTHEAST PLATEAU AIR BASIN		X	Remainder of Air Basin		X
SACRAMENTO VALLEY AIR BASIN		X	SOUTHEAST DESERT AIR BASIN		X

<sup>1</sup> Portion of County in Air Basin, not including Channel Islands

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## **APPENDIX 3.1:**

### **CALEEMOD EXISTING OPERATIONAL EMISSIONS MODEL OUTPUTS**

# IE Distribution Center #14 (Existing Passenger Car Operations) Detailed Report

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# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	IE Distribution Center #14 (Existing Passenger Car Operations)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	20.8
Location	34.06334566920109, -117.53410603073728
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5288
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	41.8	1000sqft	0.96	41,780	0.00	0.00	—	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

## 2. Emissions Summary

### 2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.29	2.16	0.98	12.8	0.02	0.04	0.80	0.85	0.04	0.14	0.18	39.7	3,803	3,842	4.23	0.11	1,122	5,104
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.92	1.82	1.03	8.94	0.02	0.04	0.80	0.84	0.04	0.14	0.18	39.7	3,615	3,655	4.24	0.12	1,114	4,909
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.90	1.80	0.89	8.16	0.02	0.04	0.59	0.63	0.04	0.10	0.14	39.7	3,086	3,126	4.22	0.10	1,116	4,378
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.16	0.33	0.16	1.49	< 0.005	0.01	0.11	0.11	0.01	0.02	0.03	6.57	511	518	0.70	0.02	185	725

### 2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Mobile	0.92	0.84	0.54	10.7	0.02	0.01	0.80	0.81	0.01	0.14	0.15	—	2,242	2,242	0.08	0.05	8.87	2,269
Area	0.32	1.30	0.02	1.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.47	7.47	< 0.005	< 0.005	—	7.69
Energy	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,490	1,490	0.14	0.01	—	1,498
Water	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Waste	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Total	1.29	2.16	0.98	12.8	0.02	0.04	0.80	0.85	0.04	0.14	0.18	39.7	3,803	3,842	4.23	0.11	1,122	5,104
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.87	0.79	0.60	8.58	0.02	0.01	0.80	0.81	0.01	0.14	0.15	—	2,062	2,062	0.08	0.06	0.23	2,081
Area	—	1.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,490	1,490	0.14	0.01	—	1,498
Water	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Waste	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Total	0.92	1.82	1.03	8.94	0.02	0.04	0.80	0.84	0.04	0.14	0.18	39.7	3,615	3,655	4.24	0.12	1,114	4,909
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.63	0.57	0.45	6.56	0.02	0.01	0.59	0.59	0.01	0.10	0.11	—	1,528	1,528	0.06	0.04	2.80	1,545
Area	0.22	1.20	0.01	1.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.12	5.12	< 0.005	< 0.005	—	5.27
Energy	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,490	1,490	0.14	0.01	—	1,498
Water	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Waste	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Total	0.90	1.80	0.89	8.16	0.02	0.04	0.59	0.63	0.04	0.10	0.14	39.7	3,086	3,126	4.22	0.10	1,116	4,378
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.12	0.10	0.08	1.20	< 0.005	< 0.005	0.11	0.11	< 0.005	0.02	0.02	—	253	253	0.01	0.01	0.46	256
Area	0.04	0.22	< 0.005	0.23	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.87

Energy	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	247	247	0.02	< 0.005	—	248
Water	—	—	—	—	—	—	—	—	—	—	—	3.07	10.4	13.5	0.32	0.01	—	23.6
Waste	—	—	—	—	—	—	—	—	—	—	—	3.50	0.00	3.50	0.35	0.00	—	12.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	184	184
Total	0.16	0.33	0.16	1.49	< 0.005	0.01	0.11	0.11	0.01	0.02	0.03	6.57	511	518	0.70	0.02	185	725

## 4. Operations Emissions Details

### 4.1. Mobile Emissions by Land Use

#### 4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.92	0.84	0.54	10.7	0.02	0.01	0.10	0.11	0.01	0.03	0.04	—	2,242	2,242	0.08	0.05	8.87	2,269
Total	0.92	0.84	0.54	10.7	0.02	0.01	0.10	0.11	0.01	0.03	0.04	—	2,242	2,242	0.08	0.05	8.87	2,269
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.87	0.79	0.60	8.58	0.02	0.01	0.10	0.11	0.01	0.03	0.04	—	2,062	2,062	0.08	0.06	0.23	2,081
Total	0.87	0.79	0.60	8.58	0.02	0.01	0.10	0.11	0.01	0.03	0.04	—	2,062	2,062	0.08	0.06	0.23	2,081



Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.12	0.10	0.08	1.20	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	—	253	253	0.01	0.01	0.46	256
Total	0.12	0.10	0.08	1.20	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	—	253	253	0.01	0.01	0.46	256

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	981	981	0.09	0.01	—	987
Total	—	—	—	—	—	—	—	—	—	—	—	—	981	981	0.09	0.01	—	987
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	981	981	0.09	0.01	—	987
Total	—	—	—	—	—	—	—	—	—	—	—	—	981	981	0.09	0.01	—	987
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	—	—	—	—	—	—	—	—	—	—	—	—	—	162	162	0.02	< 0.005	—	163
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	162	162	0.02	< 0.005	—	163

#### 4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	509	509	0.05	< 0.005	—	511
Total	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	509	509	0.05	< 0.005	—	511
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	509	509	0.05	< 0.005	—	511
Total	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	509	509	0.05	< 0.005	—	511
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	84.3	84.3	0.01	< 0.005	—	84.5
Total	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	84.3	84.3	0.01	< 0.005	—	84.5

### 4.3. Area Emissions by Source

#### 4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.89	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.32	0.30	0.02	1.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.47	7.47	< 0.005	< 0.005	—	7.69
Total	0.32	1.30	0.02	1.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.47	7.47	< 0.005	< 0.005	—	7.69
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.89	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	1.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.04	0.04	< 0.005	0.23	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.87
Total	0.04	0.22	< 0.005	0.23	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.87

#### 4.4. Water Emissions by Land Use

##### 4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Total	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Total	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	—	—	—	—	—	—	—	—	—	—	—	3.07	10.4	13.5	0.32	0.01	—	23.6
Total	—	—	—	—	—	—	—	—	—	—	—	3.07	10.4	13.5	0.32	0.01	—	23.6

#### 4.5. Waste Emissions by Land Use

##### 4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Total	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Total	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	3.50	0.00	3.50	0.35	0.00	—	12.3

Total	—	—	—	—	—	—	—	—	—	—	—	—	3.50	0.00	3.50	0.35	0.00	—	12.3
-------	---	---	---	---	---	---	---	---	---	---	---	---	------	------	------	------	------	---	------

## 4.6. Refrigerant Emissions by Land Use

### 4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113	
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113	
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	184	184	
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	184	184	

### 4.7. Offroad Emissions By Equipment Type

#### 4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.8. Stationary Emissions By Equipment Type

#### 4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.9. User Defined Emissions By Equipment Type

#### 4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.10. Soil Carbon Accumulation By Vegetation Type

#### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 5. Activity Data

### 5.9. Operational Mobile Sources

#### 5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	207	17.5	7.02	55,311	3,007	254	102	802,453

### 5.10. Operational Area Sources

#### 5.10.1. Hearths

##### 5.10.1.1. Unmitigated

#### 5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	62,670	20,890	—

#### 5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

### 5.11. Operational Energy Consumption

#### 5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	1,027,373	349	0.0330	0.0040	794,266

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	9,661,625	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	39.3	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Unrefrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
----------------	-----------	-------------	----------------	---------------	------------	-------------

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
----------------	-----------	--------	--------------------------	------------------------------	------------------------------

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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## 6. Climate Risk Detailed Report

### 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.1	annual days of extreme heat
Extreme Precipitation	5.30	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

### 6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A

Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

### 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

### 6.4. Climate Risk Reduction Measures

## 7. Health and Equity Details

## 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	95.7
AQ-DPM	96.6
Drinking Water	93.3
Lead Risk Housing	8.61
Pesticides	0.00
Toxic Releases	78.9
Traffic	89.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	30.9
Haz Waste Facilities/Generators	78.8
Impaired Water Bodies	0.00
Solid Waste	70.4
Sensitive Population	—
Asthma	47.3
Cardio-vascular	67.3
Low Birth Weights	57.1
Socioeconomic Factor Indicators	—
Education	40.5
Housing	32.3
Linguistic	18.1
Poverty	23.9



Unemployment	53.9
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## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	76.78686
Employed	63.51854228
Education	—
Bachelor's or higher	44.59129988
High school enrollment	3.977928911
Preschool enrollment	15.60374695
Transportation	—
Auto Access	88.68215065
Active commuting	10.11163865
Social	—
2-parent households	11.86962659
Voting	50.91749006
Neighborhood	—
Alcohol availability	69.3314513
Park access	61.63223406
Retail density	69.31861927
Supermarket access	2.399589375
Tree canopy	29.69331451
Housing	—
Homeownership	78.81432054
Housing habitability	80.20017965

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Low-inc homeowner severe housing cost burden	88.74631079
Low-inc renter severe housing cost burden	37.86731682
Uncrowded housing	60.77248813
Health Outcomes	—
Insured adults	67.2783267
Arthritis	74.6
Asthma ER Admissions	54.3
High Blood Pressure	79.9
Cancer (excluding skin)	68.9
Asthma	49.0
Coronary Heart Disease	85.5
Chronic Obstructive Pulmonary Disease	74.0
Diagnosed Diabetes	64.3
Life Expectancy at Birth	52.5
Cognitively Disabled	87.2
Physically Disabled	77.4
Heart Attack ER Admissions	10.4
Mental Health Not Good	50.5
Chronic Kidney Disease	79.8
Obesity	43.5
Pedestrian Injuries	99.0
Physical Health Not Good	58.2
Stroke	80.6
Health Risk Behaviors	—
Binge Drinking	19.3
Current Smoker	53.5
No Leisure Time for Physical Activity	61.3

Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	32.5
Elderly	84.2
English Speaking	91.4
Foreign-born	35.9
Outdoor Workers	45.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	76.5
Traffic Density	89.2
Traffic Access	46.3
Other Indices	—
Hardship	44.0
Other Decision Support	—
2016 Voting	74.5

### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	65.0
Healthy Places Index Score for Project Location (b)	42.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

### 7.4. Health & Equity Measures

No Health & Equity Measures selected.

### 7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

## 8. User Changes to Default Data

Screen	Justification
Operations: Vehicle Data	Trip rates based on existing activities
Operations: Fleet Mix	Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, & MCY)
Operations: Energy Use	Electricity usage based on electricity bills provided by Applicant

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5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures



## 7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

## 8. User Changes to Default Data

# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	IE Distribution Center #14 (Existing Truck Operations)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	20.8
Location	34.06334566920109, -117.53410603073728
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5288
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	41.8	1000sqft	0.96	41,780	0.00	0.00	—	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

## 2. Emissions Summary

### 2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.30	1.51	9.14	7.26	0.07	0.15	1.11	1.27	0.15	0.27	0.41	39.7	8,807	8,847	4.87	1.17	1,133	10,451
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.96	1.20	9.51	5.46	0.07	0.15	1.11	1.26	0.14	0.27	0.41	39.7	8,802	8,842	4.87	1.17	1,114	10,427
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.94	1.36	7.14	5.32	0.05	0.12	0.81	0.93	0.12	0.20	0.31	39.7	6,858	6,897	4.68	0.87	1,120	8,395
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.17	0.25	1.30	0.97	0.01	0.02	0.15	0.17	0.02	0.04	0.06	6.57	1,135	1,142	0.78	0.14	185	1,390

### 2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

IE Distribution Center #14 (Existing Truck Operations) Detailed Report, 8/18/2022

Mobile	0.93	0.19	8.70	5.08	0.06	0.12	1.11	1.23	0.11	0.27	0.38	—	7,247	7,247	0.72	1.11	19.2	7,616
Area	0.32	1.30	0.02	1.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.47	7.47	< 0.005	< 0.005	—	7.69
Energy	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,490	1,490	0.14	0.01	—	1,498
Water	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Waste	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Total	1.30	1.51	9.14	7.26	0.07	0.15	1.11	1.27	0.15	0.27	0.41	39.7	8,807	8,847	4.87	1.17	1,133	10,451
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.92	0.18	9.08	5.10	0.06	0.12	1.11	1.23	0.11	0.27	0.38	—	7,249	7,249	0.72	1.12	0.50	7,600
Area	—	1.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,490	1,490	0.14	0.01	—	1,498
Water	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Waste	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Total	0.96	1.20	9.51	5.46	0.07	0.15	1.11	1.26	0.14	0.27	0.41	39.7	8,802	8,842	4.87	1.17	1,114	10,427
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.67	0.13	6.71	3.72	0.05	0.08	0.81	0.90	0.08	0.20	0.28	—	5,299	5,299	0.52	0.82	6.07	5,562
Area	0.22	1.20	0.01	1.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.12	5.12	< 0.005	< 0.005	—	5.27
Energy	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,490	1,490	0.14	0.01	—	1,498
Water	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Waste	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Total	0.94	1.36	7.14	5.32	0.05	0.12	0.81	0.93	0.12	0.20	0.31	39.7	6,858	6,897	4.68	0.87	1,120	8,395
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.12	0.02	1.22	0.68	0.01	0.02	0.15	0.16	0.01	0.04	0.05	—	877	877	0.09	0.14	1.01	921
Area	0.04	0.22	< 0.005	0.23	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.87

Energy	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	247	247	0.02	< 0.005	—	248
Water	—	—	—	—	—	—	—	—	—	—	—	3.07	10.4	13.5	0.32	0.01	—	23.6
Waste	—	—	—	—	—	—	—	—	—	—	—	3.50	0.00	3.50	0.35	0.00	—	12.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	184	184
Total	0.17	0.25	1.30	0.97	0.01	0.02	0.15	0.17	0.02	0.04	0.06	6.57	1,135	1,142	0.78	0.14	185	1,390

## 4. Operations Emissions Details

### 4.1. Mobile Emissions by Land Use

#### 4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.93	0.19	8.70	5.08	0.06	0.12	0.57	0.69	0.11	0.18	0.30	—	7,247	7,247	0.72	1.11	19.2	7,616
Total	0.93	0.19	8.70	5.08	0.06	0.12	0.57	0.69	0.11	0.18	0.30	—	7,247	7,247	0.72	1.11	19.2	7,616
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.92	0.18	9.08	5.10	0.06	0.12	0.57	0.69	0.11	0.18	0.30	—	7,249	7,249	0.72	1.12	0.50	7,600
Total	0.92	0.18	9.08	5.10	0.06	0.12	0.57	0.69	0.11	0.18	0.30	—	7,249	7,249	0.72	1.12	0.50	7,600

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.12	0.02	1.22	0.68	0.01	0.02	0.08	0.09	0.01	0.02	0.04	—	877	877	0.09	0.14	1.01	921
Total	0.12	0.02	1.22	0.68	0.01	0.02	0.08	0.09	0.01	0.02	0.04	—	877	877	0.09	0.14	1.01	921

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	981	981	0.09	0.01	—	987
Total	—	—	—	—	—	—	—	—	—	—	—	—	981	981	0.09	0.01	—	987
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	981	981	0.09	0.01	—	987
Total	—	—	—	—	—	—	—	—	—	—	—	—	981	981	0.09	0.01	—	987
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	—	—	—	—	—	—	—	—	—	—	—	—	162	162	0.02	< 0.005	—	163
Total	—	—	—	—	—	—	—	—	—	—	—	—	162	162	0.02	< 0.005	—	163

#### 4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	509	509	0.05	< 0.005	—	511
Total	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	509	509	0.05	< 0.005	—	511
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	509	509	0.05	< 0.005	—	511
Total	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	509	509	0.05	< 0.005	—	511
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	84.3	84.3	0.01	< 0.005	—	84.5
Total	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	84.3	84.3	0.01	< 0.005	—	84.5

### 4.3. Area Emissions by Source

#### 4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.89	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.32	0.30	0.02	1.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.47	7.47	< 0.005	< 0.005	—	7.69
Total	0.32	1.30	0.02	1.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.47	7.47	< 0.005	< 0.005	—	7.69
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.89	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	1.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



Architectural	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.04	0.04	< 0.005	0.23	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.87
Total	0.04	0.22	< 0.005	0.23	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.87

#### 4.4. Water Emissions by Land Use

##### 4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Total	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Total	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	—	—	—	—	—	—	—	—	—	—	—	3.07	10.4	13.5	0.32	0.01	—	23.6
Total	—	—	—	—	—	—	—	—	—	—	—	3.07	10.4	13.5	0.32	0.01	—	23.6

#### 4.5. Waste Emissions by Land Use

##### 4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Total	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Total	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	3.50	0.00	3.50	0.35	0.00	—	12.3

Total	—	—	—	—	—	—	—	—	—	—	—	3.50	0.00	3.50	0.35	0.00	—	12.3
-------	---	---	---	---	---	---	---	---	---	---	---	------	------	------	------	------	---	------

## 4.6. Refrigerant Emissions by Land Use

### 4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	184	184
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	184	184

### 4.7. Offroad Emissions By Equipment Type

#### 4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.8. Stationary Emissions By Equipment Type

#### 4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.9. User Defined Emissions By Equipment Type

##### 4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.10. Soil Carbon Accumulation By Vegetation Type

##### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 5. Activity Data

### 5.9. Operational Mobile Sources

#### 5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	106	8.93	3.57	28,184	2,337	198	79.1	623,606

### 5.10. Operational Area Sources

#### 5.10.1. Hearths

##### 5.10.1.1. Unmitigated

#### 5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	62,670	20,890	—

#### 5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

### 5.11. Operational Energy Consumption

#### 5.11.1. Unmitigated



Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	1,027,373	349	0.0330	0.0040	794,266

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	9,661,625	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	39.3	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Unrefrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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## 5.16. Stationary Sources

### 5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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### 5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
----------------	-----------	--------	--------------------------	------------------------------	------------------------------

## 5.17. User Defined

Equipment Type	Fuel Type
—	—

## 5.18. Vegetation

### 5.18.1. Land Use Change

#### 5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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### 5.18.1. Biomass Cover Type

#### 5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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### 5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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## 6. Climate Risk Detailed Report

### 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.1	annual days of extreme heat
Extreme Precipitation	5.30	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

### 6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A

Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

### 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

### 6.4. Climate Risk Reduction Measures

## 7. Health and Equity Details

## 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	95.7
AQ-DPM	96.6
Drinking Water	93.3
Lead Risk Housing	8.61
Pesticides	0.00
Toxic Releases	78.9
Traffic	89.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	30.9
Haz Waste Facilities/Generators	78.8
Impaired Water Bodies	0.00
Solid Waste	70.4
Sensitive Population	—
Asthma	47.3
Cardio-vascular	67.3
Low Birth Weights	57.1
Socioeconomic Factor Indicators	—
Education	40.5
Housing	32.3
Linguistic	18.1
Poverty	23.9

Unemployment	53.9
--------------	------

## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	76.78686
Employed	63.51854228
Education	—
Bachelor's or higher	44.59129988
High school enrollment	3.977928911
Preschool enrollment	15.60374695
Transportation	—
Auto Access	88.68215065
Active commuting	10.11163865
Social	—
2-parent households	11.86962659
Voting	50.91749006
Neighborhood	—
Alcohol availability	69.3314513
Park access	61.63223406
Retail density	69.31861927
Supermarket access	2.399589375
Tree canopy	29.69331451
Housing	—
Homeownership	78.81432054
Housing habitability	80.20017965

Low-inc homeowner severe housing cost burden	88.74631079
Low-inc renter severe housing cost burden	37.86731682
Uncrowded housing	60.77248813
Health Outcomes	—
Insured adults	67.2783267
Arthritis	74.6
Asthma ER Admissions	54.3
High Blood Pressure	79.9
Cancer (excluding skin)	68.9
Asthma	49.0
Coronary Heart Disease	85.5
Chronic Obstructive Pulmonary Disease	74.0
Diagnosed Diabetes	64.3
Life Expectancy at Birth	52.5
Cognitively Disabled	87.2
Physically Disabled	77.4
Heart Attack ER Admissions	10.4
Mental Health Not Good	50.5
Chronic Kidney Disease	79.8
Obesity	43.5
Pedestrian Injuries	99.0
Physical Health Not Good	58.2
Stroke	80.6
Health Risk Behaviors	—
Binge Drinking	19.3
Current Smoker	53.5
No Leisure Time for Physical Activity	61.3

Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	32.5
Elderly	84.2
English Speaking	91.4
Foreign-born	35.9
Outdoor Workers	45.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	76.5
Traffic Density	89.2
Traffic Access	46.3
Other Indices	—
Hardship	44.0
Other Decision Support	—
2016 Voting	74.5

### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	65.0
Healthy Places Index Score for Project Location (b)	42.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.



### 7.4. Health & Equity Measures

No Health & Equity Measures selected.

### 7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

## 8. User Changes to Default Data

Screen	Justification
Operations: Vehicle Data	Trip rates based on existing activities
Operations: Fleet Mix	Truck Mix based on SCAQMD recommended truck mix
Operations: Energy Use	Electricity usage based on bills provided by the Applicant

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**APPENDIX 4.1:**

**CALEEMOD PROJECT CONSTRUCTION EMISSIONS MODEL OUTPUTS**

# IE Distribution Center #14 (Construction) Detailed Report

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# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	IE Distribution Center #14 (Construction)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	20.8
Location	34.06334566920109, -117.53410603073728
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5288
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	243	1000sqft	7.08	243,303	65,274	0.00	—	—
Refrigerated Warehouse-No Rail	27.0	1000sqft	0.79	27,034	7,253	0.00	—	—



Parking Lot	299	Space	1.53	0.00	0.00	0.00	—	—
Other Asphalt Surfaces	161	1000sqft	3.68	0.00	0.00	0.00	—	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

## 2. Emissions Summary

### 2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.13	47.2	39.6	71.8	0.13	0.38	9.62	9.95	0.36	4.00	4.32	—	15,836	15,836	0.86	0.60	10.9	16,044
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.08	47.1	30.4	53.5	0.07	0.38	2.20	2.58	0.36	0.52	0.89	—	9,589	9,589	0.43	0.25	0.28	9,674
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.67	4.08	10.5	18.5	0.03	0.13	1.31	1.44	0.12	0.45	0.57	—	3,729	3,729	0.19	0.12	1.43	3,770
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.12	0.74	1.92	3.37	0.01	0.02	0.24	0.26	0.02	0.08	0.10	—	617	617	0.03	0.02	0.24	624

### 2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	2.13	1.77	39.6	71.8	0.13	0.33	9.62	9.95	0.32	4.00	4.32	—	15,836	15,836	0.86	0.60	9.37	16,044
2024	2.12	47.2	30.2	56.6	0.07	0.38	2.20	2.58	0.36	0.52	0.89	—	9,771	9,771	0.43	0.25	10.9	9,867
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.65	1.48	21.7	39.8	0.06	0.26	1.70	1.96	0.25	0.41	0.65	—	7,437	7,437	0.35	0.22	0.24	7,510
2024	2.08	47.1	30.4	53.5	0.07	0.38	2.20	2.58	0.36	0.52	0.89	—	9,589	9,589	0.43	0.25	0.28	9,674
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.67	0.59	10.5	18.5	0.03	0.13	1.31	1.44	0.12	0.45	0.57	—	3,729	3,729	0.19	0.12	1.43	3,770
2024	0.38	4.08	5.50	9.86	0.01	0.07	0.40	0.46	0.06	0.09	0.16	—	1,790	1,790	0.08	0.05	0.88	1,807
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.12	0.11	1.92	3.37	0.01	0.02	0.24	0.26	0.02	0.08	0.10	—	617	617	0.03	0.02	0.24	624
2024	0.07	0.74	1.00	1.80	< 0.005	0.01	0.07	0.08	0.01	0.02	0.03	—	296	296	0.01	0.01	0.14	299

### 3. Construction Emissions Details

#### 3.1. Demolition (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	0.51	12.7	18.7	0.03	0.23	—	0.23	0.22	—	0.22	—	3,529	3,529	0.14	0.03	—	3,541

Demolition	—	—	—	—	—	—	0.45	0.45	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	2.09	3.07	0.01	0.04	—	0.04	0.04	—	0.04	—	580	580	0.02	< 0.005	—	582
Demolition	—	—	—	—	—	—	0.07	0.07	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.38	0.56	< 0.005	0.01	—	0.01	0.01	—	0.01	—	96.0	96.0	< 0.005	< 0.005	—	96.4
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.10	1.67	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	264	264	0.01	0.01	1.13	268
Vendor	0.04	0.01	0.38	0.20	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	317	317	0.03	0.05	0.87	332
Hauling	0.03	< 0.005	0.27	0.15	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	214	214	0.02	0.03	0.45	226
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.02	0.02	0.02	0.22	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	40.4	40.4	< 0.005	< 0.005	0.08	41.0
Vendor	0.01	< 0.005	0.06	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	52.1	52.1	< 0.005	0.01	0.06	54.6
Hauling	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	35.2	35.2	< 0.005	0.01	0.03	37.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	6.69	6.69	< 0.005	< 0.005	0.01	6.78
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.63	8.63	< 0.005	< 0.005	0.01	9.03
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.84	5.84	< 0.005	< 0.005	0.01	6.13

### 3.3. Site Preparation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.68	0.68	15.7	30.0	0.05	0.10	—	0.10	0.10	—	0.10	—	5,530	5,530	0.22	0.04	—	5,549
Dust From Material Movement	—	—	—	—	—	—	5.66	5.66	—	2.69	2.69	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.06	1.29	2.46	< 0.005	0.01	—	0.01	0.01	—	0.01	—	455	455	0.02	< 0.005	—	456

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Dust From Material Movement:	—	—	—	—	—	—	0.47	0.47	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.24	0.45	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	75.2	75.2	< 0.005	< 0.005	—	75.5
Dust From Material Movement:	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.10	1.67	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	264	264	0.01	0.01	1.13	268
Vendor	0.02	< 0.005	0.19	0.10	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	158	158	0.01	0.02	0.44	166
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	20.2	20.2	< 0.005	< 0.005	0.04	20.5
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.0	13.0	< 0.005	< 0.005	0.02	13.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	3.34	3.34	< 0.005	< 0.005	0.01	3.39
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.16	2.16	< 0.005	< 0.005	< 0.005	2.26

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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### 3.5. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e	
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82	0.82	19.9	36.2	0.06	0.18	—	0.18	0.18	—	0.18	—	6,715	6,715	0.27	0.05	—	6,738	
Dust From Material Movement	—	—	—	—	—	—	2.67	2.67	—	0.98	0.98	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.07	1.64	2.97	0.01	0.02	—	0.02	0.01	—	0.01	—	552	552	0.02	< 0.005	—	554	
Dust From Material Movement	—	—	—	—	—	—	0.22	0.22	—	0.08	0.08	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.30	0.54	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	91.4	91.4	< 0.005	< 0.005	—	91.7	

Dust From Material Movement:	—	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.11	1.85	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	294	294	0.01	0.01	1.26	298
Vendor	0.02	< 0.005	0.19	0.10	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	158	158	0.01	0.02	0.44	166
Hauling	0.37	0.06	3.43	1.91	0.02	0.03	0.20	0.23	0.03	0.07	0.10	—	2,716	2,716	0.31	0.43	5.65	2,857
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	22.4	22.4	< 0.005	< 0.005	0.04	22.8
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.0	13.0	< 0.005	< 0.005	0.02	13.6
Hauling	0.03	< 0.005	0.30	0.16	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	223	223	0.03	0.04	0.20	235
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	3.72	3.72	< 0.005	< 0.005	0.01	3.77
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.16	2.16	< 0.005	< 0.005	< 0.005	2.26
Hauling	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	37.0	37.0	< 0.005	0.01	0.03	38.8

### 3.7. Building Construction (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.87	20.0	31.4	0.05	0.25	—	0.25	0.23	—	0.23	—	5,110	5,110	0.21	0.04	—	5,128
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.87	20.0	31.4	0.05	0.25	—	0.25	0.23	—	0.23	—	5,110	5,110	0.21	0.04	—	5,128
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.20	4.61	7.24	0.01	0.06	—	0.06	0.05	—	0.05	—	1,180	1,180	0.05	0.01	—	1,184
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.84	1.32	< 0.005	0.01	—	0.01	0.01	—	0.01	—	195	195	0.01	< 0.005	—	196
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.69	0.63	0.60	10.6	0.00	0.00	0.09	0.09	0.00	0.00	0.00	—	1,675	1,675	0.07	0.06	7.18	1,700
Vendor	0.09	0.02	0.94	0.51	0.01	0.01	0.04	0.06	0.01	0.02	0.03	—	792	792	0.07	0.12	2.19	831
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00



Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.65	0.59	0.70	7.94	0.00	0.00	0.09	0.09	0.00	0.00	0.00	—	1,534	1,534	0.07	0.06	0.19	1,553
Vendor	0.09	0.02	0.98	0.51	0.01	0.01	0.04	0.06	0.01	0.02	0.03	—	793	793	0.07	0.12	0.06	829
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	0.16	1.94	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	359	359	0.02	0.01	0.72	364
Vendor	0.02	< 0.005	0.23	0.12	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	183	183	0.02	0.03	0.22	192
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.03	0.35	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	59.5	59.5	< 0.005	< 0.005	0.12	60.3
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	30.3	30.3	< 0.005	< 0.005	0.04	31.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.9. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.87	20.0	31.4	0.05	0.25	—	0.25	0.23	—	0.23	—	5,110	5,110	0.21	0.04	—	5,127
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Off-Road Equipment	0.91	0.87	20.0	31.4	0.05	0.25	—	0.25	0.23	—	0.23	—	5,110	5,110	0.21	0.04	—	5,127
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.18	4.14	6.51	0.01	0.05	—	0.05	0.05	—	0.05	—	1,060	1,060	0.04	0.01	—	1,064
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.76	1.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	175	175	0.01	< 0.005	—	176
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.65	0.60	0.55	9.64	0.00	0.00	0.09	0.09	0.00	0.00	0.00	—	1,641	1,641	0.07	0.06	6.56	1,666
Vendor	0.08	0.02	0.90	0.48	0.01	0.01	0.04	0.06	0.01	0.02	0.03	—	784	784	0.06	0.12	2.19	822
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.62	0.56	0.65	7.29	0.00	0.00	0.09	0.09	0.00	0.00	0.00	—	1,504	1,504	0.07	0.06	0.17	1,523
Vendor	0.08	0.02	0.94	0.49	0.01	0.01	0.04	0.06	0.01	0.02	0.03	—	784	784	0.06	0.12	0.06	821
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.14	1.59	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	316	316	0.01	0.01	0.59	321
Vendor	0.02	< 0.005	0.20	0.10	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	163	163	0.01	0.02	0.20	170

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.29	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	52.4	52.4	< 0.005	< 0.005	0.10	53.1
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	26.9	26.9	< 0.005	< 0.005	0.03	28.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.11. Paving (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	7.21	10.6	0.01	0.09	—	0.09	0.08	—	0.08	—	1,512	1,512	0.06	0.01	—	1,517
Paving	—	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	7.21	10.6	0.01	0.09	—	0.09	0.08	—	0.08	—	1,512	1,512	0.06	0.01	—	1,517
Paving	—	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.89	1.31	< 0.005	0.01	—	0.01	0.01	—	0.01	—	186	186	0.01	< 0.005	—	187
Paving	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.16	0.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	30.9	30.9	< 0.005	< 0.005	—	31.0	
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.09	0.08	0.07	1.27	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	216	216	0.01	0.01	0.86	219	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.08	0.07	0.09	0.96	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	198	198	0.01	0.01	0.02	200	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.01	0.01	0.01	0.12	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	24.7	24.7	< 0.005	< 0.005	0.05	25.1	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	4.10	4.10	< 0.005	< 0.005	0.01	4.15	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	

### 3.13. Architectural Coating (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	1.43	1.28	< 0.005	0.04	—	0.04	0.04	—	0.04	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	44.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	1.43	1.28	< 0.005	0.04	—	0.04	0.04	—	0.04	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	44.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.12	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.6	14.6	< 0.005	< 0.005	—	14.7
Architectural Coatings	—	3.69	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

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Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.42	2.42	< 0.005	< 0.005	—	2.43
Architectural Coatings	—	0.67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.11	1.95	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	331	331	0.01	0.01	1.32	336
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.11	0.13	1.47	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	303	303	0.01	0.01	0.03	307
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	25.3	25.3	< 0.005	< 0.005	0.05	25.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	4.19	4.19	< 0.005	< 0.005	0.01	4.25
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

## 4. Operations Emissions Details

### 4.10. Soil Carbon Accumulation By Vegetation Type

#### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 5. Activity Data

### 5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	5/2/2023	7/24/2023	5.00	60.0	—
Site Preparation	Site Preparation	7/25/2023	9/4/2023	5.00	30.0	—
Grading	Grading	7/25/2023	9/4/2023	5.00	30.0	—
Building Construction	Building Construction	9/5/2023	4/15/2024	5.00	160	—
Paving	Paving	2/13/2024	4/15/2024	5.00	45.0	—
Architectural Coating	Architectural Coating	3/5/2024	4/15/2024	5.00	30.0	—

### 5.2. Off-Road Equipment

#### 5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Interim	2.00	8.00	367	0.40

Demolition	Excavators	Diesel	Tier 4 Interim	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Interim	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Interim	3.00	8.00	367	0.40
Grading	Graders	Diesel	Tier 4 Interim	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Interim	2.00	8.00	36.0	0.38
Grading	Scrapers	Diesel	Tier 4 Interim	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 4 Interim	5.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Tier 4 Interim	2.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Interim	2.00	8.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Interim	2.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Tier 4 Interim	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Interim	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Interim	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Interim	1.00	8.00	37.0	0.48
Site Preparation	Crawler Tractors	Diesel	Tier 4 Interim	4.00	8.00	87.0	0.43
Grading	Crawler Tractors	Diesel	Tier 4 Interim	2.00	8.00	87.0	0.43
Building Construction	Crawler Tractors	Diesel	Tier 4 Interim	5.00	8.00	87.0	0.43
Demolition	Generator Sets	Diesel	Tier 4 Interim	1.00	8.00	14.0	0.74

## 5.3. Construction Vehicles

### 5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	18.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	10.0	10.2	HHDT,MHDT

Demolition	Hauling	3.00	20.0	HHDT
Demolition	Onsite truck	0.00	0.00	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	18.0	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	5.00	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	0.00	0.00	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	5.00	10.2	HHDT,MHDT
Grading	Hauling	38.0	20.0	HHDT
Grading	Onsite truck	0.00	0.00	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	114	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	25.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	0.00	0.00	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	0.00	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	0.00	0.00	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	23.0	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	0.00	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	0.00	0.00	HHDT

## 5.4. Vehicles

### 5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

## 5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	415,727	138,576	13,629

## 5.6. Dust Mitigation

### 5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	1,922	—
Site Preparation	0.00	0.00	105	0.00	—
Grading	0.00	9,000	120	0.00	—
Paving	0.00	0.00	0.00	0.00	5.21

### 5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%
Water Demolished Area	2	36%	36%

## 5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
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Unrefrigerated Warehouse-No Rail	0.00	0%
Refrigerated Warehouse-No Rail	0.00	0%
Parking Lot	1.53	100%
Other Asphalt Surfaces	3.68	100%

### 5.8. Construction Electricity Consumption and Emissions Factors

#### kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	532	0.03	< 0.005
2024	0.00	532	0.03	< 0.005

### 5.18. Vegetation

#### 5.18.1. Land Use Change

##### 5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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#### 5.18.1. Biomass Cover Type

##### 5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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#### 5.18.2. Sequestration

##### 5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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## 6. Climate Risk Detailed Report

### 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.1	annual days of extreme heat
Extreme Precipitation	5.30	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about  $\frac{3}{4}$  an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

### 6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A

Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

### 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

### 6.4. Climate Risk Reduction Measures

## 7. Health and Equity Details

### 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
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Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	95.7
AQ-DPM	96.6
Drinking Water	93.3
Lead Risk Housing	8.61
Pesticides	0.00
Toxic Releases	78.9
Traffic	89.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	30.9
Haz Waste Facilities/Generators	78.8
Impaired Water Bodies	0.00
Solid Waste	70.4
Sensitive Population	—
Asthma	47.3
Cardio-vascular	67.3
Low Birth Weights	57.1
Socioeconomic Factor Indicators	—
Education	40.5
Housing	32.3
Linguistic	18.1
Poverty	23.9
Unemployment	53.9

## 7.2. Healthy Places Index Scores



The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	76.78686
Employed	63.51854228
Education	—
Bachelor's or higher	44.59129988
High school enrollment	3.977928911
Preschool enrollment	15.60374695
Transportation	—
Auto Access	88.68215065
Active commuting	10.11163865
Social	—
2-parent households	11.86962659
Voting	50.91749006
Neighborhood	—
Alcohol availability	69.3314513
Park access	61.63223406
Retail density	69.31861927
Supermarket access	2.399589375
Tree canopy	29.69331451
Housing	—
Homeownership	78.81432054
Housing habitability	80.20017965
Low-inc homeowner severe housing cost burden	88.74631079
Low-inc renter severe housing cost burden	37.86731682
Uncrowded housing	60.77248813
Health Outcomes	—

Insured adults	67.2783267
Arthritis	74.6
Asthma ER Admissions	54.3
High Blood Pressure	79.9
Cancer (excluding skin)	68.9
Asthma	49.0
Coronary Heart Disease	85.5
Chronic Obstructive Pulmonary Disease	74.0
Diagnosed Diabetes	64.3
Life Expectancy at Birth	52.5
Cognitively Disabled	87.2
Physically Disabled	77.4
Heart Attack ER Admissions	10.4
Mental Health Not Good	50.5
Chronic Kidney Disease	79.8
Obesity	43.5
Pedestrian Injuries	99.0
Physical Health Not Good	58.2
Stroke	80.6
Health Risk Behaviors	—
Binge Drinking	19.3
Current Smoker	53.5
No Leisure Time for Physical Activity	61.3
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	32.5

Elderly	84.2
English Speaking	91.4
Foreign-born	35.9
Outdoor Workers	45.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	76.5
Traffic Density	89.2
Traffic Access	46.3
Other Indices	—
Hardship	44.0
Other Decision Support	—
2016 Voting	74.5

### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	65.0
Healthy Places Index Score for Project Location (b)	42.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

### 7.4. Health & Equity Measures

No Health & Equity Measures selected.

### 7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

## 8. User Changes to Default Data

Screen	Justification
Land Use	Total Project Site is 13.08 acres
Construction: Construction Phases	Construction anticipated to end in April 2024
Construction: Off-Road Equipment	Construction equipment based on equipment needed for other industrial projects within the area
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Demolition, Site Preparation, Grading, and Building Construction
Construction: Architectural Coatings	Rule 1113

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**APPENDIX 4.2:**

**CALEEMOD PROJECT REGIONAL OPERATIONAL EMISSIONS MODEL OUTPUTS**

# IE Distribution Center #14 (Passenger Car Operations) Detailed Report

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## 8. User Changes to Default Data

# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	IE Distribution Center #14 (Passenger Car Operations)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	20.8
Location	34.06334566920109, -117.53410603073728
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5288
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	243	1000sqft	7.08	243,303	65,274	0.00	—	—
Refrigerated Warehouse-No Rail	27.0	1000sqft	0.79	27,034	7,253	0.00	—	—

Parking Lot	299	Space	1.53	0.00	0.00	0.00	—	—
Other Asphalt Surfaces	161	1000sqft	3.68	0.00	0.00	0.00	—	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

## 2. Emissions Summary

### 2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.75	9.84	3.77	29.9	0.05	0.25	1.18	1.43	0.25	0.20	0.45	257	8,875	9,132	26.6	0.41	6,525	16,442
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.60	7.85	3.76	15.0	0.05	0.23	1.18	1.41	0.23	0.20	0.43	257	8,562	8,818	26.6	0.41	6,512	16,117
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.68	8.85	3.60	20.1	0.04	0.24	0.86	1.10	0.24	0.15	0.39	257	7,811	8,068	26.6	0.39	6,516	15,364
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.49	1.61	0.66	3.67	0.01	0.04	0.16	0.20	0.04	0.03	0.07	42.5	1,293	1,336	4.40	0.06	1,079	2,544

### 2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

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Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.35	1.23	0.80	15.7	0.03	0.01	1.18	1.19	0.01	0.20	0.21	—	3,299	3,299	0.11	0.08	13.1	3,338
Area	2.09	8.45	0.10	11.8	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.3	48.3	< 0.005	< 0.005	—	49.8
Energy	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	5,116	5,116	0.46	0.03	—	5,135
Water	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Waste	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Total	3.75	9.84	3.77	29.9	0.05	0.25	1.18	1.43	0.25	0.20	0.45	257	8,875	9,132	26.6	0.41	6,525	16,442
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.28	1.16	0.89	12.6	0.03	0.01	1.18	1.19	0.01	0.20	0.21	—	3,033	3,033	0.12	0.09	0.34	3,062
Area	—	6.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	5,116	5,116	0.46	0.03	—	5,135
Water	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Waste	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Total	1.60	7.85	3.76	15.0	0.05	0.23	1.18	1.41	0.23	0.20	0.43	257	8,562	8,818	26.6	0.41	6,512	16,117
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.93	0.85	0.67	9.65	0.02	0.01	0.86	0.87	0.01	0.15	0.16	—	2,250	2,250	0.08	0.06	4.12	2,275
Area	1.43	7.84	0.07	8.05	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.1	33.1	< 0.005	< 0.005	—	34.1
Energy	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	5,116	5,116	0.46	0.03	—	5,135
Water	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Waste	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512

Total	2.68	8.85	3.60	20.1	0.04	0.24	0.86	1.10	0.24	0.15	0.39	257	7,811	8,068	26.6	0.39	6,516	15,364
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.17	0.15	0.12	1.76	< 0.005	< 0.005	0.16	0.16	< 0.005	0.03	0.03	—	373	373	0.01	0.01	0.68	377
Area	0.26	1.43	0.01	1.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.48	5.48	< 0.005	< 0.005	—	5.64
Energy	0.06	0.03	0.52	0.44	< 0.005	0.04	—	0.04	0.04	—	0.04	—	847	847	0.08	< 0.005	—	850
Water	—	—	—	—	—	—	—	—	—	—	—	19.8	68.3	88.1	2.04	0.05	—	154
Waste	—	—	—	—	—	—	—	—	—	—	—	22.7	0.00	22.7	2.27	0.00	—	79.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,078	1,078
Total	0.49	1.61	0.66	3.67	0.01	0.04	0.16	0.20	0.04	0.03	0.07	42.5	1,293	1,336	4.40	0.06	1,079	2,544

## 4. Operations Emissions Details

### 4.1. Mobile Emissions by Land Use

#### 4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.18	1.08	0.70	13.8	0.03	0.01	0.13	0.15	0.01	0.04	0.05	—	2,892	2,892	0.10	0.07	11.4	2,926
Refrigerated Warehouse-No Rail	0.17	0.15	0.10	1.94	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	407	407	0.01	0.01	1.61	412

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Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.35	1.23	0.80	15.7	0.03	0.01	0.15	0.17	0.01	0.05	0.06	—	3,299	3,299	0.11	0.08	13.1	3,338
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.13	1.02	0.78	11.1	0.03	0.01	0.13	0.15	0.01	0.04	0.05	—	2,659	2,659	0.10	0.07	0.30	2,684
Refrigerated Warehouse-No Rail	0.16	0.14	0.11	1.56	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	374	374	0.01	0.01	0.04	378
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.28	1.16	0.89	12.6	0.03	0.01	0.15	0.17	0.01	0.05	0.06	—	3,033	3,033	0.12	0.09	0.34	3,062
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.15	0.14	0.11	1.54	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	327	327	0.01	0.01	0.60	330
Refrigerated Warehouse-No Rail	0.02	0.02	0.02	0.22	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	45.9	45.9	< 0.005	< 0.005	0.08	46.4



Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.17	0.15	0.12	1.76	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	373	373	0.01	0.01	0.68	377	

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,073	1,073	0.10	0.01	—	1,080
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	565	565	0.05	0.01	—	569
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	55.8	55.8	0.01	< 0.005	—	56.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,695	1,695	0.16	0.02	—	1,704
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,073	1,073	0.10	0.01	—	1,080
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	565	565	0.05	0.01	—	569
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	55.8	55.8	0.01	< 0.005	—	56.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,695	1,695	0.16	0.02	—	1,704
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	178	178	0.02	< 0.005	—	179
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	93.6	93.6	0.01	< 0.005	—	94.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	9.23	9.23	< 0.005	< 0.005	—	9.29
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	281	281	0.03	< 0.005	—	282

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

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Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.27	0.14	2.48	2.09	0.01	0.19	—	0.19	0.19	—	0.19	—	2,965	2,965	0.26	0.01	—	2,973
Refrigerated Warehouse-No Rail	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.04	< 0.005	—	458
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	3,421	3,421	0.30	0.01	—	3,431
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.27	0.14	2.48	2.09	0.01	0.19	—	0.19	0.19	—	0.19	—	2,965	2,965	0.26	0.01	—	2,973
Refrigerated Warehouse-No Rail	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.04	< 0.005	—	458
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	3,421	3,421	0.30	0.01	—	3,431
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.02	0.45	0.38	< 0.005	0.03	—	0.03	0.03	—	0.03	—	491	491	0.04	< 0.005	—	492
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	75.6	75.6	0.01	< 0.005	—	75.8
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.06	0.03	0.52	0.44	< 0.005	0.04	—	0.04	0.04	—	0.04	—	566	566	0.05	< 0.005	—	568

### 4.3. Area Emissions by Source

#### 4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.80	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	0.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.09	1.93	0.10	11.8	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.3	48.3	< 0.005	< 0.005	—	49.8
Total	2.09	8.45	0.10	11.8	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.3	48.3	< 0.005	< 0.005	—	49.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.80	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	6.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.26	0.24	0.01	1.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.48	5.48	< 0.005	< 0.005	—	5.64
Total	0.26	1.43	0.01	1.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.48	5.48	< 0.005	< 0.005	—	5.64

#### 4.4. Water Emissions by Land Use

##### 4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

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Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	108	371	479	11.1	0.27	—	836
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	12.0	41.2	53.2	1.23	0.03	—	92.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	108	371	479	11.1	0.27	—	836
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	12.0	41.2	53.2	1.23	0.03	—	92.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	17.8	61.4	79.3	1.84	0.04	—	138
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	1.98	6.83	8.81	0.20	< 0.005	—	15.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	19.8	68.3	88.1	2.04	0.05	—	154

#### 4.5. Waste Emissions by Land Use

##### 4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	123	0.00	123	12.3	0.00	—	431
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	13.7	0.00	13.7	1.37	0.00	—	47.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	123	0.00	123	12.3	0.00	—	431
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	13.7	0.00	13.7	1.37	0.00	—	47.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	20.4	0.00	20.4	2.04	0.00	—	71.4
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	2.27	0.00	2.27	0.23	0.00	—	7.93
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	22.7	0.00	22.7	2.27	0.00	—	79.3

#### 4.6. Refrigerant Emissions by Land Use

##### 4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,484	6,484
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.6	27.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,484	6,484
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.6	27.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,074	1,074
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.56	4.56
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,078	1,078

### 4.7. Offroad Emissions By Equipment Type

#### 4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.8. Stationary Emissions By Equipment Type

#### 4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
-------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 5. Activity Data

### 5.9. Operational Mobile Sources

#### 5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VM/Weekday	VM/Saturday	VM/Sunday	VM/Year
Unrefrigerated Warehouse-No Rail	267	23.5	9.37	71,399	3,878	340	136	1,035,864
Refrigerated Warehouse-No Rail	37.6	3.18	1.27	10,041	546	46.2	18.5	145,674
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## 5.10. Operational Area Sources

### 5.10.1. Hearths

#### 5.10.1.1. Unmitigated

### 5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	415,727	138,576	13,629

### 5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

## 5.11. Operational Energy Consumption

### 5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBtu/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	1,123,744	349	0.0330	0.0040	4,625,355
Refrigerated Warehouse-No Rail	591,921	349	0.0330	0.0040	712,190
Parking Lot	58,383	349	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	349	0.0330	0.0040	0.00

## 5.12. Operational Water and Wastewater Consumption

### 5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	56,263,819	1,048,248
Refrigerated Warehouse-No Rail	6,251,613	116,472
Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00

## 5.13. Operational Waste Generation

### 5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	229	0.00
Refrigerated Warehouse-No Rail	25.4	0.00
Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00

## 5.14. Operational Refrigeration and Air Conditioning Equipment



## 5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Unrefrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0
Refrigerated Warehouse-No Rail	Cold storage	User Defined	150	7.50	7.50	7.50	25.0

## 5.15. Operational Off-Road Equipment

## 5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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## 5.16. Stationary Sources

## 5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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## 5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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## 5.17. User Defined

Equipment Type	Fuel Type
—	—

## 5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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## 6. Climate Risk Detailed Report

### 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.1	annual days of extreme heat
Extreme Precipitation	5.30	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about  $\frac{3}{4}$  an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

## 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A

Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

## 6.4. Climate Risk Reduction Measures

# 7. Health and Equity Details

## 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	95.7
AQ-DPM	96.6
Drinking Water	93.3
Lead Risk Housing	8.61
Pesticides	0.00
Toxic Releases	78.9
Traffic	89.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	30.9

Haz Waste Facilities/Generators	78.8
Impaired Water Bodies	0.00
Solid Waste	70.4
Sensitive Population	—
Asthma	47.3
Cardio-vascular	67.3
Low Birth Weights	57.1
Socioeconomic Factor Indicators	—
Education	40.5
Housing	32.3
Linguistic	18.1
Poverty	23.9
Unemployment	53.9

## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	76.78686
Employed	63.51854228
Education	—
Bachelor's or higher	44.59129988
High school enrollment	3.977928911
Preschool enrollment	15.60374695
Transportation	—
Auto Access	88.68215065
Active commuting	10.11163865

Social	—
2-parent households	11.86962659
Voting	50.91749006
Neighborhood	—
Alcohol availability	69.3314513
Park access	61.63223406
Retail density	69.31861927
Supermarket access	2.399589375
Tree canopy	29.69331451
Housing	—
Homeownership	78.81432054
Housing habitability	80.20017965
Low-inc homeowner severe housing cost burden	88.74631079
Low-inc renter severe housing cost burden	37.86731682
Uncrowded housing	60.77248813
Health Outcomes	—
Insured adults	67.2783267
Arthritis	74.6
Asthma ER Admissions	54.3
High Blood Pressure	79.9
Cancer (excluding skin)	68.9
Asthma	49.0
Coronary Heart Disease	85.5
Chronic Obstructive Pulmonary Disease	74.0
Diagnosed Diabetes	64.3
Life Expectancy at Birth	52.5
Cognitively Disabled	87.2

Physically Disabled	77.4
Heart Attack ER Admissions	10.4
Mental Health Not Good	50.5
Chronic Kidney Disease	79.8
Obesity	43.5
Pedestrian Injuries	99.0
Physical Health Not Good	58.2
Stroke	80.6
Health Risk Behaviors	—
Binge Drinking	19.3
Current Smoker	53.5
No Leisure Time for Physical Activity	61.3
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	32.5
Elderly	84.2
English Speaking	91.4
Foreign-born	35.9
Outdoor Workers	45.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	76.5
Traffic Density	89.2
Traffic Access	46.3
Other Indices	—
Hardship	44.0
Other Decision Support	—

2016 Voting	74.5
-------------	------

### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	65.0
Healthy Places Index Score for Project Location (b)	42.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

### 7.4. Health & Equity Measures

No Health & Equity Measures selected.

### 7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

## 8. User Changes to Default Data

Screen	Justification
Land Use	Total Project Area is 13.08 acres
Operations: Vehicle Data	Trip rates based on information provided in ITE 11th Edition
Operations: Fleet Mix	Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, & MCY)
Operations: Refrigerants	As of 1 January 2022, new commercial refrigeration equipment may not use refrigerants with a GWP of 150 or greater.



# IE Distribution Center #14 (Truck Operations) Detailed Report

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# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	IE Distribution Center #14 (Truck Operations)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	20.8
Location	34.06334566920109, -117.53410603073728
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5288
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	243	1000sqft	7.08	243,303	65,274	0.00	—	—
Refrigerated Warehouse-No Rail	27.0	1000sqft	0.79	27,034	7,253	0.00	—	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

## 2. Emissions Summary

### 2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.54	8.84	14.1	20.7	0.10	0.38	1.51	1.88	0.38	0.36	0.73	257	15,122	15,379	27.3	1.76	6,540	23,126
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.44	6.90	14.5	8.94	0.10	0.36	1.51	1.87	0.36	0.36	0.71	257	15,077	15,333	27.3	1.76	6,512	23,052
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.57	8.15	11.5	15.2	0.08	0.34	1.10	1.44	0.33	0.26	0.59	257	12,532	12,789	27.1	1.38	6,521	20,397
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.47	1.49	2.10	2.78	0.01	0.06	0.20	0.26	0.06	0.05	0.11	42.5	2,075	2,117	4.48	0.23	1,080	3,377

### 2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Mobile	1.14	0.28	11.1	6.51	0.09	0.15	1.51	1.65	0.14	0.36	0.49	—	9,602	9,602	0.83	1.43	28.2	10,078
Area	2.09	8.40	0.10	11.8	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.3	48.3	< 0.005	< 0.005	—	49.8
Energy	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	5,060	5,060	0.46	0.03	—	5,079
Water	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Waste	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Total	3.54	8.84	14.1	20.7	0.10	0.38	1.51	1.88	0.38	0.36	0.73	257	15,122	15,379	27.3	1.76	6,540	23,126
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.13	0.27	11.6	6.53	0.09	0.15	1.51	1.65	0.14	0.36	0.49	—	9,604	9,604	0.83	1.44	0.73	10,054
Area	—	6.47	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	5,060	5,060	0.46	0.03	—	5,079
Water	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Waste	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Total	1.44	6.90	14.5	8.94	0.10	0.36	1.51	1.87	0.36	0.36	0.71	257	15,077	15,333	27.3	1.76	6,512	23,052
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.83	0.20	8.57	4.76	0.06	0.11	1.10	1.21	0.10	0.26	0.36	—	7,027	7,027	0.60	1.05	8.91	7,364
Area	1.43	7.79	0.07	8.05	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.1	33.1	< 0.005	< 0.005	—	34.1
Energy	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	5,060	5,060	0.46	0.03	—	5,079
Water	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Waste	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Total	2.57	8.15	11.5	15.2	0.08	0.34	1.10	1.44	0.33	0.26	0.59	257	12,532	12,789	27.1	1.38	6,521	20,397
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.15	0.04	1.56	0.87	0.01	0.02	0.20	0.22	0.02	0.05	0.07	—	1,163	1,163	0.10	0.17	1.47	1,219
Area	0.26	1.42	0.01	1.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.48	5.48	< 0.005	< 0.005	—	5.64



Energy	0.06	0.03	0.52	0.44	< 0.005	0.04	—	0.04	0.04	—	0.04	—	838	838	0.08	< 0.005	—	841
Water	—	—	—	—	—	—	—	—	—	—	—	19.8	68.3	88.1	2.04	0.05	—	154
Waste	—	—	—	—	—	—	—	—	—	—	—	22.7	0.00	22.7	2.27	0.00	—	79.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,078	1,078
Total	0.47	1.49	2.10	2.78	0.01	0.06	0.20	0.26	0.06	0.05	0.11	42.5	2,075	2,117	4.48	0.23	1,080	3,377

## 4. Operations Emissions Details

### 4.1. Mobile Emissions by Land Use

#### 4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.00	0.24	9.79	5.66	0.08	0.13	0.65	0.77	0.12	0.21	0.33	—	8,521	8,521	0.73	1.28	24.4	8,945
Refrigerated Warehouse-No Rail	0.14	0.05	1.32	0.85	0.01	0.02	0.09	0.11	0.02	0.03	0.05	—	1,080	1,080	0.09	0.15	3.82	1,133
Total	1.14	0.28	11.1	6.51	0.09	0.15	0.74	0.88	0.14	0.24	0.38	—	9,602	9,602	0.83	1.43	28.2	10,078
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse Rail	0.99	0.23	10.2	5.68	0.08	0.13	0.65	0.77	0.12	0.21	0.33	—	8,523	8,523	0.73	1.28	0.63	8,924
Refrigerated Warehouse-No Rail	0.14	0.04	1.38	0.85	0.01	0.02	0.09	0.11	0.02	0.03	0.05	—	1,081	1,081	0.09	0.16	0.10	1,129
Total	1.13	0.27	11.6	6.53	0.09	0.15	0.74	0.88	0.14	0.24	0.38	—	9,604	9,604	0.83	1.44	0.73	10,054
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.13	0.03	1.38	0.76	0.01	0.02	0.09	0.10	0.02	0.03	0.04	—	1,033	1,033	0.09	0.16	1.28	1,082
Refrigerated Warehouse-No Rail	0.02	0.01	0.19	0.11	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	131	131	0.01	0.02	0.20	137
Total	0.15	0.04	1.56	0.87	0.01	0.02	0.10	0.12	0.02	0.03	0.05	—	1,163	1,163	0.10	0.17	1.47	1,219

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No	—	—	—	—	—	—	—	—	—	—	—	—	1,073	1,073	0.10	0.01	—	1,080
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	565	565	0.05	0.01	—	569
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,639	1,639	0.16	0.02	—	1,648
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,073	1,073	0.10	0.01	—	1,080
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	565	565	0.05	0.01	—	569
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,639	1,639	0.16	0.02	—	1,648
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	178	178	0.02	< 0.005	—	179
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	93.6	93.6	0.01	< 0.005	—	94.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	271	271	0.03	< 0.005	—	273

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.27	0.14	2.48	2.09	0.01	0.19	—	0.19	0.19	—	0.19	—	2,965	2,965	0.26	0.01	—	2,973
Refrigerated Warehouse-No Rail	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.04	< 0.005	—	458
Total	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	3,421	3,421	0.30	0.01	—	3,431
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.27	0.14	2.48	2.09	0.01	0.19	—	0.19	0.19	—	0.19	—	2,965	2,965	0.26	0.01	—	2,973
Refrigerated Warehouse-No Rail	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.04	< 0.005	—	458
Total	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	3,421	3,421	0.30	0.01	—	3,431
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No	0.05	0.02	0.45	0.38	< 0.005	0.03	—	0.03	0.03	—	0.03	—	491	491	0.04	< 0.005	—	492
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	75.6	75.6	0.01	< 0.005	—	75.8
Total	0.06	0.03	0.52	0.44	< 0.005	0.04	—	0.04	0.04	—	0.04	—	566	566	0.05	< 0.005	—	568

### 4.3. Area Emissions by Source

#### 4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.79	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.69	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.09	1.93	0.10	11.8	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.3	48.3	< 0.005	< 0.005	—	49.8
Total	2.09	8.40	0.10	11.8	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.3	48.3	< 0.005	< 0.005	—	49.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer Products	—	5.79	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.69	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	6.47	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.26	0.24	0.01	1.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.48	5.48	< 0.005	< 0.005	—	5.64
Total	0.26	1.42	0.01	1.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.48	5.48	< 0.005	< 0.005	—	5.64

#### 4.4. Water Emissions by Land Use

##### 4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	108	371	479	11.1	0.27	—	836

Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	12.0	41.2	53.2	1.23	0.03	—	92.9
Total	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	108	371	479	11.1	0.27	—	836
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	12.0	41.2	53.2	1.23	0.03	—	92.9
Total	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	17.8	61.4	79.3	1.84	0.04	—	138
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	1.98	6.83	8.81	0.20	< 0.005	—	15.4
Total	—	—	—	—	—	—	—	—	—	—	—	19.8	68.3	88.1	2.04	0.05	—	154

#### 4.5. Waste Emissions by Land Use

##### 4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	123	0.00	123	12.3	0.00	—	431
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	13.7	0.00	13.7	1.37	0.00	—	47.9
Total	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	123	0.00	123	12.3	0.00	—	431
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	13.7	0.00	13.7	1.37	0.00	—	47.9
Total	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	20.4	0.00	20.4	2.04	0.00	—	71.4



Refrigerated	—	—	—	—	—	—	—	—	—	—	—	2.27	0.00	2.27	0.23	0.00	—	7.93
Total	—	—	—	—	—	—	—	—	—	—	—	22.7	0.00	22.7	2.27	0.00	—	79.3

#### 4.6. Refrigerant Emissions by Land Use

##### 4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,484	6,484
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.6	27.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,484	6,484

Refrigerated Warehouse-No	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.6	27.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,074	1,074
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.56	4.56
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,078	1,078

### 4.7. Offroad Emissions By Equipment Type

#### 4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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### 4.8. Stationary Emissions By Equipment Type

#### 4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.9. User Defined Emissions By Equipment Type

#### 4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.10. Soil Carbon Accumulation By Vegetation Type

##### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

##### 4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 5. Activity Data

### 5.9. Operational Mobile Sources

#### 5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	145	12.7	5.08	38,611	2,893	254	102	772,662
Refrigerated Warehouse-No Rail	21.8	1.84	0.74	5,813	413	34.9	14.0	110,224

### 5.10. Operational Area Sources

#### 5.10.1. Hearths

## 5.10.1.1. Unmitigated

## 5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	405,506	135,169	—

## 5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

## 5.11. Operational Energy Consumption

## 5.11.1. Unmitigated

## Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	1,123,744	349	0.0330	0.0040	4,625,355
Refrigerated Warehouse-No Rail	591,921	349	0.0330	0.0040	712,190

## 5.12. Operational Water and Wastewater Consumption

## 5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	56,263,819	1,048,248
Refrigerated Warehouse-No Rail	6,251,613	116,472

## 5.13. Operational Waste Generation

### 5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	229	0.00
Refrigerated Warehouse-No Rail	25.4	0.00

## 5.14. Operational Refrigeration and Air Conditioning Equipment

### 5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Unrefrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0
Refrigerated Warehouse-No Rail	Cold storage	User Defined	150	7.50	7.50	7.50	25.0

## 5.15. Operational Off-Road Equipment

### 5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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## 5.16. Stationary Sources

### 5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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### 5.16.2. Process Boilers



Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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### 5.17. User Defined

Equipment Type	Fuel Type
—	—

### 5.18. Vegetation

#### 5.18.1. Land Use Change

##### 5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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#### 5.18.1. Biomass Cover Type

##### 5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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#### 5.18.2. Sequestration

##### 5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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## 6. Climate Risk Detailed Report

### 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.1	annual days of extreme heat
Extreme Precipitation	5.30	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

### 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

### 6.4. Climate Risk Reduction Measures

## 7. Health and Equity Details

### 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	95.7
AQ-DPM	96.6

Drinking Water	93.3
Lead Risk Housing	8.61
Pesticides	0.00
Toxic Releases	78.9
Traffic	89.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	30.9
Haz Waste Facilities/Generators	78.8
Impaired Water Bodies	0.00
Solid Waste	70.4
Sensitive Population	—
Asthma	47.3
Cardio-vascular	67.3
Low Birth Weights	57.1
Socioeconomic Factor Indicators	—
Education	40.5
Housing	32.3
Linguistic	18.1
Poverty	23.9
Unemployment	53.9

## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	76.78686

Employed	63.51854228
Education	—
Bachelor's or higher	44.59129988
High school enrollment	3.977928911
Preschool enrollment	15.60374695
Transportation	—
Auto Access	88.68215065
Active commuting	10.11163865
Social	—
2-parent households	11.86962659
Voting	50.91749006
Neighborhood	—
Alcohol availability	69.3314513
Park access	61.63223406
Retail density	69.31861927
Supermarket access	2.399589375
Tree canopy	29.69331451
Housing	—
Homeownership	78.81432054
Housing habitability	80.20017965
Low-inc homeowner severe housing cost burden	88.74631079
Low-inc renter severe housing cost burden	37.86731682
Uncrowded housing	60.77248813
Health Outcomes	—
Insured adults	67.2783267
Arthritis	74.6
Asthma ER Admissions	54.3

High Blood Pressure	79.9
Cancer (excluding skin)	68.9
Asthma	49.0
Coronary Heart Disease	85.5
Chronic Obstructive Pulmonary Disease	74.0
Diagnosed Diabetes	64.3
Life Expectancy at Birth	52.5
Cognitively Disabled	87.2
Physically Disabled	77.4
Heart Attack ER Admissions	10.4
Mental Health Not Good	50.5
Chronic Kidney Disease	79.8
Obesity	43.5
Pedestrian Injuries	99.0
Physical Health Not Good	58.2
Stroke	80.6
Health Risk Behaviors	—
Binge Drinking	19.3
Current Smoker	53.5
No Leisure Time for Physical Activity	61.3
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	32.5
Elderly	84.2
English Speaking	91.4
Foreign-born	35.9

Outdoor Workers	45.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	76.5
Traffic Density	89.2
Traffic Access	46.3
Other Indices	—
Hardship	44.0
Other Decision Support	—
2016 Voting	74.5

### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	65.0
Healthy Places Index Score for Project Location (b)	42.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

### 7.4. Health & Equity Measures

No Health & Equity Measures selected.

### 7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

## 8. User Changes to Default Data

Screen	Justification
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Land Use	Total Project Area (without Parking and Other Asphalt Surfaces) is 7.87 acres
Operations: Vehicle Data	Trip rates based on information provided in ITE 11th Edition
Operations: Fleet Mix	Truck Mix based on SCAQMD recommended truck mix
Operations: Refrigerants	As of 1 January 2022, new commercial refrigeration equipment may not use refrigerants with a GWP of 150 or greater.



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**APPENDIX 4.3:**

**CALEEMOD PROJECT LOCALIZED OPERATIONAL EMISSIONS MODEL OUTPUTS**

# IE Distribution Center #14 (Passenger Car Localized Operations) Detailed Report

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# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	IE Distribution Center #14 (Passenger Car Localized Operations)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	20.8
Location	34.06334566920109, -117.53410603073728
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5288
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	243	1000sqft	7.08	243,303	65,274	0.00	—	—
Refrigerated Warehouse-No Rail	27.0	1000sqft	0.79	27,034	7,253	0.00	—	—



Parking Lot	299	Space	1.53	0.00	0.00	0.00	—	—
Other Asphalt Surfaces	161	1000sqft	3.68	0.00	0.00	0.00	—	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

## 2. Emissions Summary

### 2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.33	9.51	3.17	16.4	0.02	0.24	0.03	0.27	0.24	0.01	0.25	257	5,718	5,974	26.5	0.35	6,512	13,254
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.18	7.52	3.08	4.95	0.02	0.22	0.03	0.25	0.22	0.01	0.23	257	5,663	5,919	26.5	0.35	6,512	13,198
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.37	8.61	3.09	12.3	0.02	0.23	0.02	0.25	0.23	< 0.005	0.24	257	5,660	5,917	26.5	0.34	6,512	13,194
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.43	1.57	0.56	2.25	< 0.005	0.04	< 0.005	0.05	0.04	< 0.005	0.04	42.5	937	980	4.39	0.06	1,078	2,184

### 2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

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Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.92	0.90	0.20	2.28	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	141	141	0.05	0.02	0.36	150
Area	2.09	8.45	0.10	11.8	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.3	48.3	< 0.005	< 0.005	—	49.8
Energy	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	5,116	5,116	0.46	0.03	—	5,135
Water	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Waste	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Total	3.33	9.51	3.17	16.4	0.02	0.24	0.03	0.27	0.24	0.01	0.25	257	5,718	5,974	26.5	0.35	6,512	13,254
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.87	0.84	0.21	2.55	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	135	135	0.06	0.02	0.01	143
Area	—	6.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	5,116	5,116	0.46	0.03	—	5,135
Water	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Waste	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Total	1.18	7.52	3.08	4.95	0.02	0.22	0.03	0.25	0.22	0.01	0.23	257	5,663	5,919	26.5	0.35	6,512	13,198
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.63	0.61	0.16	1.87	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	0.01	—	99.3	99.3	0.04	0.02	0.11	106
Area	1.43	7.84	0.07	8.05	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.1	33.1	< 0.005	< 0.005	—	34.1
Energy	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	5,116	5,116	0.46	0.03	—	5,135
Water	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Waste	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512

Total	2.37	8.61	3.09	12.3	0.02	0.23	0.02	0.25	0.23	< 0.005	0.24	257	5,660	5,917	26.5	0.34	6,512	13,194
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.11	0.11	0.03	0.34	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	16.4	16.4	0.01	< 0.005	0.02	17.5
Area	0.26	1.43	0.01	1.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.48	5.48	< 0.005	< 0.005	—	5.64
Energy	0.06	0.03	0.52	0.44	< 0.005	0.04	—	0.04	0.04	—	0.04	—	847	847	0.08	< 0.005	—	850
Water	—	—	—	—	—	—	—	—	—	—	—	19.8	68.3	88.1	2.04	0.05	—	154
Waste	—	—	—	—	—	—	—	—	—	—	—	22.7	0.00	22.7	2.27	0.00	—	79.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,078	1,078
Total	0.43	1.57	0.56	2.25	< 0.005	0.04	< 0.005	0.05	0.04	< 0.005	0.04	42.5	937	980	4.39	0.06	1,078	2,184

## 4. Operations Emissions Details

### 4.1. Mobile Emissions by Land Use

#### 4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.81	0.79	0.18	2.00	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	124	124	0.04	0.02	0.32	131
Refrigerated Warehouse-No Rail	0.11	0.11	0.02	0.28	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	17.4	17.4	0.01	< 0.005	0.04	18.5

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Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.92	0.90	0.20	2.28	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	141	141	0.05	0.02	0.36	150	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.76	0.74	0.19	2.23	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	118	118	0.05	0.02	0.01	126	
Refrigerated Warehouse-No Rail	0.11	0.10	0.03	0.31	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	16.6	16.6	0.01	< 0.005	< 0.005	17.7	
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.87	0.84	0.21	2.55	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	135	135	0.06	0.02	0.01	143	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.10	0.10	0.03	0.30	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	14.4	14.4	0.01	< 0.005	0.02	15.3	
Refrigerated Warehouse-No Rail	0.01	0.01	< 0.005	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.03	2.03	< 0.005	< 0.005	< 0.005	2.16	

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.11	0.11	0.03	0.34	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	16.4	16.4	0.01	< 0.005	0.02	17.5

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,073	1,073	0.10	0.01	—	1,080	
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	565	565	0.05	0.01	—	569	
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	55.8	55.8	0.01	< 0.005	—	56.1	
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00	
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,695	1,695	0.16	0.02	—	1,704	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

Unrefrige Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,073	1,073	0.10	0.01	—	1,080
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	565	565	0.05	0.01	—	569
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	55.8	55.8	0.01	< 0.005	—	56.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,695	1,695	0.16	0.02	—	1,704
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	178	178	0.02	< 0.005	—	179
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	93.6	93.6	0.01	< 0.005	—	94.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	9.23	9.23	< 0.005	< 0.005	—	9.29
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	281	281	0.03	< 0.005	—	282

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

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Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.27	0.14	2.48	2.09	0.01	0.19	—	0.19	0.19	—	0.19	—	2,965	2,965	0.26	0.01	—	2,973
Refrigerated Warehouse-No Rail	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.04	< 0.005	—	458
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	3,421	3,421	0.30	0.01	—	3,431
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.27	0.14	2.48	2.09	0.01	0.19	—	0.19	0.19	—	0.19	—	2,965	2,965	0.26	0.01	—	2,973
Refrigerated Warehouse-No Rail	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.04	< 0.005	—	458
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	3,421	3,421	0.30	0.01	—	3,431
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.02	0.45	0.38	< 0.005	0.03	—	0.03	0.03	—	0.03	—	491	491	0.04	< 0.005	—	492
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	75.6	75.6	0.01	< 0.005	—	75.8
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.06	0.03	0.52	0.44	< 0.005	0.04	—	0.04	0.04	—	0.04	—	566	566	0.05	< 0.005	—	568

### 4.3. Area Emissions by Source

#### 4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.80	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



Architectural	—	0.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.09	1.93	0.10	11.8	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.3	48.3	< 0.005	< 0.005	—	49.8
Total	2.09	8.45	0.10	11.8	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.3	48.3	< 0.005	< 0.005	—	49.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.80	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	6.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.26	0.24	0.01	1.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.48	5.48	< 0.005	< 0.005	—	5.64
Total	0.26	1.43	0.01	1.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.48	5.48	< 0.005	< 0.005	—	5.64

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

IE Distribution Center #14 (Passenger Car Localized Operations) Detailed Report, 8/18/2022

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	108	371	479	11.1	0.27	—	836
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	12.0	41.2	53.2	1.23	0.03	—	92.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	108	371	479	11.1	0.27	—	836
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	12.0	41.2	53.2	1.23	0.03	—	92.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	17.8	61.4	79.3	1.84	0.04	—	138
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	1.98	6.83	8.81	0.20	< 0.005	—	15.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	19.8	68.3	88.1	2.04	0.05	—	154

#### 4.5. Waste Emissions by Land Use

##### 4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

IE Distribution Center #14 (Passenger Car Lcoalized Operations) Detailed Report, 8/18/2022

Unrefrige rated Warehou se-No Rail	—	—	—	—	—	—	—	—	—	—	—	123	0.00	123	12.3	0.00	—	431
Refrigera ted Warehou se-No Rail	—	—	—	—	—	—	—	—	—	—	—	13.7	0.00	13.7	1.37	0.00	—	47.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrige rated Warehou se-No Rail	—	—	—	—	—	—	—	—	—	—	—	123	0.00	123	12.3	0.00	—	431
Refrigera ted Warehou se-No Rail	—	—	—	—	—	—	—	—	—	—	—	13.7	0.00	13.7	1.37	0.00	—	47.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	20.4	0.00	20.4	2.04	0.00	—	71.4
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	2.27	0.00	2.27	0.23	0.00	—	7.93
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	22.7	0.00	22.7	2.27	0.00	—	79.3

### 4.6. Refrigerant Emissions by Land Use

#### 4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,484	6,484
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.6	27.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,484	6,484
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.6	27.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,074	1,074
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.56	4.56
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,078	1,078

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.8. Stationary Emissions By Equipment Type

#### 4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
-------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 5. Activity Data

### 5.9. Operational Mobile Sources

#### 5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	267	23.5	9.37	71,399	107	9.38	3.75	28,560
Refrigerated Warehouse-No Rail	37.6	3.18	1.27	10,041	15.0	1.27	0.51	4,016
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## 5.10. Operational Area Sources

### 5.10.1. Hearths

#### 5.10.1.1. Unmitigated

### 5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	415,727	138,576	13,629

### 5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

## 5.11. Operational Energy Consumption

### 5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBtu/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	1,123,744	349	0.0330	0.0040	4,625,355
Refrigerated Warehouse-No Rail	591,921	349	0.0330	0.0040	712,190
Parking Lot	58,383	349	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	349	0.0330	0.0040	0.00

## 5.12. Operational Water and Wastewater Consumption

### 5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	56,263,819	1,048,248
Refrigerated Warehouse-No Rail	6,251,613	116,472
Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00

## 5.13. Operational Waste Generation

### 5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	229	0.00
Refrigerated Warehouse-No Rail	25.4	0.00
Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00

## 5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Served
Unrefrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0
Refrigerated Warehouse-No Rail	Cold storage	User Defined	150	7.50	7.50	7.50	25.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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## 6. Climate Risk Detailed Report

### 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.1	annual days of extreme heat
Extreme Precipitation	5.30	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

## 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A

Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

## 6.4. Climate Risk Reduction Measures

# 7. Health and Equity Details

## 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	95.7
AQ-DPM	96.6
Drinking Water	93.3
Lead Risk Housing	8.61
Pesticides	0.00
Toxic Releases	78.9
Traffic	89.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	30.9



Haz Waste Facilities/Generators	78.8
Impaired Water Bodies	0.00
Solid Waste	70.4
Sensitive Population	—
Asthma	47.3
Cardio-vascular	67.3
Low Birth Weights	57.1
Socioeconomic Factor Indicators	—
Education	40.5
Housing	32.3
Linguistic	18.1
Poverty	23.9
Unemployment	53.9

## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	76.78686
Employed	63.51854228
Education	—
Bachelor's or higher	44.59129988
High school enrollment	3.977928911
Preschool enrollment	15.60374695
Transportation	—
Auto Access	88.68215065
Active commuting	10.11163865

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Social	—
2-parent households	11.86962659
Voting	50.91749006
Neighborhood	—
Alcohol availability	69.3314513
Park access	61.63223406
Retail density	69.31861927
Supermarket access	2.399589375
Tree canopy	29.69331451
Housing	—
Homeownership	78.81432054
Housing habitability	80.20017965
Low-inc homeowner severe housing cost burden	88.74631079
Low-inc renter severe housing cost burden	37.86731682
Uncrowded housing	60.77248813
Health Outcomes	—
Insured adults	67.2783267
Arthritis	74.6
Asthma ER Admissions	54.3
High Blood Pressure	79.9
Cancer (excluding skin)	68.9
Asthma	49.0
Coronary Heart Disease	85.5
Chronic Obstructive Pulmonary Disease	74.0
Diagnosed Diabetes	64.3
Life Expectancy at Birth	52.5
Cognitively Disabled	87.2

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Physically Disabled	77.4
Heart Attack ER Admissions	10.4
Mental Health Not Good	50.5
Chronic Kidney Disease	79.8
Obesity	43.5
Pedestrian Injuries	99.0
Physical Health Not Good	58.2
Stroke	80.6
Health Risk Behaviors	—
Binge Drinking	19.3
Current Smoker	53.5
No Leisure Time for Physical Activity	61.3
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	32.5
Elderly	84.2
English Speaking	91.4
Foreign-born	35.9
Outdoor Workers	45.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	76.5
Traffic Density	89.2
Traffic Access	46.3
Other Indices	—
Hardship	44.0
Other Decision Support	—

2016 Voting	74.5
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### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	65.0
Healthy Places Index Score for Project Location (b)	42.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

### 7.4. Health & Equity Measures

No Health & Equity Measures selected.

### 7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

## 8. User Changes to Default Data

Screen	Justification
Land Use	Total Project Area is 13.08 acres
Operations: Vehicle Data	Trip rates based on information provided in ITE 11th Edition
Operations: Fleet Mix	Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, & MCY)
Operations: Refrigerants	As of 1 January 2022, new commercial refrigeration equipment may not use refrigerants with a GWP of 150 or greater.

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## 8. User Changes to Default Data

# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	IE Distribution Center #14 (Truck Localized Operations)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	20.8
Location	34.06334566920109, -117.53410603073728
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5288
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	243	1000sqft	7.08	243,303	65,274	0.00	—	—
Refrigerated Warehouse-No Rail	27.0	1000sqft	0.79	27,034	7,253	0.00	—	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

## 2. Emissions Summary

### 2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.65	8.66	4.78	15.7	0.02	0.24	0.03	0.27	0.24	0.01	0.25	257	5,909	6,165	26.6	0.39	6,512	13,459
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.55	6.72	4.76	3.99	0.02	0.22	0.03	0.25	0.22	0.01	0.23	257	5,863	6,120	26.6	0.39	6,512	13,412
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.92	8.02	4.29	11.6	0.02	0.23	0.02	0.25	0.23	0.01	0.24	257	5,790	6,047	26.6	0.37	6,512	13,334
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.35	1.46	0.78	2.12	< 0.005	0.04	< 0.005	0.05	0.04	< 0.005	0.04	42.5	959	1,001	4.40	0.06	1,078	2,208

### 2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Mobile	0.25	0.10	1.81	1.54	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	388	388	0.14	0.06	0.57	411
Area	2.09	8.40	0.10	11.8	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.3	48.3	< 0.005	< 0.005	—	49.8
Energy	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	5,060	5,060	0.46	0.03	—	5,079
Water	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Waste	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Total	2.65	8.66	4.78	15.7	0.02	0.24	0.03	0.27	0.24	0.01	0.25	257	5,909	6,165	26.6	0.39	6,512	13,459
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.23	0.09	1.89	1.58	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	391	391	0.14	0.06	0.01	413
Area	—	6.47	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	5,060	5,060	0.46	0.03	—	5,079
Water	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Waste	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Total	0.55	6.72	4.76	3.99	0.02	0.22	0.03	0.25	0.22	0.01	0.23	257	5,863	6,120	26.6	0.39	6,512	13,412
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.18	0.07	1.36	1.14	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	285	285	0.10	0.05	0.18	301
Area	1.43	7.79	0.07	8.05	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.1	33.1	< 0.005	< 0.005	—	34.1
Energy	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	5,060	5,060	0.46	0.03	—	5,079
Water	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Waste	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Total	1.92	8.02	4.29	11.6	0.02	0.23	0.02	0.25	0.23	0.01	0.24	257	5,790	6,047	26.6	0.37	6,512	13,334
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.03	0.01	0.25	0.21	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	47.1	47.1	0.02	0.01	0.03	49.9
Area	0.26	1.42	0.01	1.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.48	5.48	< 0.005	< 0.005	—	5.64

Energy	0.06	0.03	0.52	0.44	< 0.005	0.04	—	0.04	0.04	—	0.04	—	838	838	0.08	< 0.005	—	841
Water	—	—	—	—	—	—	—	—	—	—	—	19.8	68.3	88.1	2.04	0.05	—	154
Waste	—	—	—	—	—	—	—	—	—	—	—	22.7	0.00	22.7	2.27	0.00	—	79.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,078	1,078
Total	0.35	1.46	0.78	2.12	< 0.005	0.04	< 0.005	0.05	0.04	< 0.005	0.04	42.5	959	1,001	4.40	0.06	1,078	2,208

## 4. Operations Emissions Details

### 4.1. Mobile Emissions by Land Use

#### 4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.21	0.09	1.61	1.34	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	—	343	343	0.12	0.06	0.49	363
Refrigerated Warehouse-No Rail	0.03	0.02	0.21	0.19	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	44.8	44.8	0.02	0.01	0.08	47.5
Total	0.25	0.10	1.81	1.54	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	—	388	388	0.14	0.06	0.57	411
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse Rail	0.20	0.08	1.67	1.39	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	—	346	346	0.12	0.06	0.01	365
Refrigerated Warehouse No Rail	0.03	0.01	0.21	0.20	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	45.1	45.1	0.02	0.01	< 0.005	47.7
Total	0.23	0.09	1.89	1.58	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	—	391	391	0.14	0.06	0.01	413
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse No Rail	0.03	0.01	0.22	0.18	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	41.7	41.7	0.01	0.01	0.03	44.1
Refrigerated Warehouse No Rail	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.44	5.44	< 0.005	< 0.005	< 0.005	5.76
Total	0.03	0.01	0.25	0.21	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	47.1	47.1	0.02	0.01	0.03	49.9

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Unrefrigerated Warehouse-No	—	—	—	—	—	—	—	—	—	—	—	—	1,073	1,073	0.10	0.01	—	1,080
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	565	565	0.05	0.01	—	569
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,639	1,639	0.16	0.02	—	1,648
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,073	1,073	0.10	0.01	—	1,080
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	565	565	0.05	0.01	—	569
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,639	1,639	0.16	0.02	—	1,648
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	178	178	0.02	< 0.005	—	179
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	93.6	93.6	0.01	< 0.005	—	94.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	271	271	0.03	< 0.005	—	273

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.27	0.14	2.48	2.09	0.01	0.19	—	0.19	0.19	—	0.19	—	2,965	2,965	0.26	0.01	—	2,973
Refrigerated Warehouse-No Rail	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.04	< 0.005	—	458
Total	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	3,421	3,421	0.30	0.01	—	3,431
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.27	0.14	2.48	2.09	0.01	0.19	—	0.19	0.19	—	0.19	—	2,965	2,965	0.26	0.01	—	2,973
Refrigerated Warehouse-No Rail	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.04	< 0.005	—	458
Total	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	3,421	3,421	0.30	0.01	—	3,431
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



Unrefrigerated Warehouse-No	0.05	0.02	0.45	0.38	< 0.005	0.03	—	0.03	0.03	—	0.03	—	491	491	0.04	< 0.005	—	492
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	75.6	75.6	0.01	< 0.005	—	75.8
Total	0.06	0.03	0.52	0.44	< 0.005	0.04	—	0.04	0.04	—	0.04	—	566	566	0.05	< 0.005	—	568

### 4.3. Area Emissions by Source

#### 4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.79	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.69	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.09	1.93	0.10	11.8	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.3	48.3	< 0.005	< 0.005	—	49.8
Total	2.09	8.40	0.10	11.8	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.3	48.3	< 0.005	< 0.005	—	49.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer Products	—	5.79	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.69	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	6.47	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.26	0.24	0.01	1.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.48	5.48	< 0.005	< 0.005	—	5.64
Total	0.26	1.42	0.01	1.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.48	5.48	< 0.005	< 0.005	—	5.64

#### 4.4. Water Emissions by Land Use

##### 4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	108	371	479	11.1	0.27	—	836

Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	12.0	41.2	53.2	1.23	0.03	—	92.9
Total	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	108	371	479	11.1	0.27	—	836
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	12.0	41.2	53.2	1.23	0.03	—	92.9
Total	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	17.8	61.4	79.3	1.84	0.04	—	138
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	1.98	6.83	8.81	0.20	< 0.005	—	15.4
Total	—	—	—	—	—	—	—	—	—	—	—	19.8	68.3	88.1	2.04	0.05	—	154

#### 4.5. Waste Emissions by Land Use

##### 4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

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Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	123	0.00	123	12.3	0.00	—	431
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	13.7	0.00	13.7	1.37	0.00	—	47.9
Total	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	123	0.00	123	12.3	0.00	—	431
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	13.7	0.00	13.7	1.37	0.00	—	47.9
Total	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	20.4	0.00	20.4	2.04	0.00	—	71.4

Refrigerated	—	—	—	—	—	—	—	—	—	—	—	2.27	0.00	2.27	0.23	0.00	—	7.93
Total	—	—	—	—	—	—	—	—	—	—	—	22.7	0.00	22.7	2.27	0.00	—	79.3

### 4.6. Refrigerant Emissions by Land Use

#### 4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,484	6,484
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.6	27.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,484	6,484

Refrigerated Warehouse-No	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.6	27.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,074	1,074
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.56	4.56
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,078	1,078

### 4.7. Offroad Emissions By Equipment Type

#### 4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
-------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

### 4.8. Stationary Emissions By Equipment Type

#### 4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.9. User Defined Emissions By Equipment Type

#### 4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.10. Soil Carbon Accumulation By Vegetation Type

#### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 5. Activity Data

### 5.9. Operational Mobile Sources

#### 5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	145	12.7	5.08	38,611	57.8	5.07	2.03	15,444
Refrigerated Warehouse-No Rail	21.8	1.84	0.74	5,813	8.71	0.74	0.29	2,325

### 5.10. Operational Area Sources

#### 5.10.1. Hearths

## 5.10.1.1. Unmitigated

## 5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	405,506	135,169	—

## 5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

## 5.11. Operational Energy Consumption

## 5.11.1. Unmitigated

## Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	1,123,744	349	0.0330	0.0040	4,625,355
Refrigerated Warehouse-No Rail	591,921	349	0.0330	0.0040	712,190

## 5.12. Operational Water and Wastewater Consumption

## 5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	56,263,819	1,048,248
Refrigerated Warehouse-No Rail	6,251,613	116,472

## 5.13. Operational Waste Generation

### 5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	229	0.00
Refrigerated Warehouse-No Rail	25.4	0.00

## 5.14. Operational Refrigeration and Air Conditioning Equipment

### 5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Unrefrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0
Refrigerated Warehouse-No Rail	Cold storage	User Defined	150	7.50	7.50	7.50	25.0

## 5.15. Operational Off-Road Equipment

### 5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
----------------	-----------	-------------	----------------	---------------	------------	-------------

## 5.16. Stationary Sources

### 5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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### 5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
----------------	-----------	--------	--------------------------	------------------------------	------------------------------

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.1	annual days of extreme heat
Extreme Precipitation	5.30	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

### 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

### 6.4. Climate Risk Reduction Measures

## 7. Health and Equity Details

### 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	95.7
AQ-DPM	96.6

Drinking Water	93.3
Lead Risk Housing	8.61
Pesticides	0.00
Toxic Releases	78.9
Traffic	89.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	30.9
Haz Waste Facilities/Generators	78.8
Impaired Water Bodies	0.00
Solid Waste	70.4
Sensitive Population	—
Asthma	47.3
Cardio-vascular	67.3
Low Birth Weights	57.1
Socioeconomic Factor Indicators	—
Education	40.5
Housing	32.3
Linguistic	18.1
Poverty	23.9
Unemployment	53.9

## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	76.78686



Employed	63.51854228
Education	—
Bachelor's or higher	44.59129988
High school enrollment	3.977928911
Preschool enrollment	15.60374695
Transportation	—
Auto Access	88.68215065
Active commuting	10.11163865
Social	—
2-parent households	11.86962659
Voting	50.91749006
Neighborhood	—
Alcohol availability	69.3314513
Park access	61.63223406
Retail density	69.31861927
Supermarket access	2.399589375
Tree canopy	29.69331451
Housing	—
Homeownership	78.81432054
Housing habitability	80.20017965
Low-inc homeowner severe housing cost burden	88.74631079
Low-inc renter severe housing cost burden	37.86731682
Uncrowded housing	60.77248813
Health Outcomes	—
Insured adults	67.2783267
Arthritis	74.6
Asthma ER Admissions	54.3

High Blood Pressure	79.9
Cancer (excluding skin)	68.9
Asthma	49.0
Coronary Heart Disease	85.5
Chronic Obstructive Pulmonary Disease	74.0
Diagnosed Diabetes	64.3
Life Expectancy at Birth	52.5
Cognitively Disabled	87.2
Physically Disabled	77.4
Heart Attack ER Admissions	10.4
Mental Health Not Good	50.5
Chronic Kidney Disease	79.8
Obesity	43.5
Pedestrian Injuries	99.0
Physical Health Not Good	58.2
Stroke	80.6
Health Risk Behaviors	—
Binge Drinking	19.3
Current Smoker	53.5
No Leisure Time for Physical Activity	61.3
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	32.5
Elderly	84.2
English Speaking	91.4
Foreign-born	35.9

Outdoor Workers	45.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	76.5
Traffic Density	89.2
Traffic Access	46.3
Other Indices	—
Hardship	44.0
Other Decision Support	—
2016 Voting	74.5

### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	65.0
Healthy Places Index Score for Project Location (b)	42.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

### 7.4. Health & Equity Measures

No Health & Equity Measures selected.

### 7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

## 8. User Changes to Default Data

Screen	Justification
--------	---------------

Land Use	Total Project Area (without Parking and Other Asphalt Surfaces) is 7.87 acres
Operations: Vehicle Data	Trip rates based on information provided in ITE 11th Edition
Operations: Fleet Mix	Truck Mix based on SCAQMD recommended truck mix
Operations: Refrigerants	As of 1 January 2022, new commercial refrigeration equipment may not use refrigerants with a GWP of 150 or greater.

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**5355 East Airport Drive**  
**MOBILE SOURCE HEALTH RISK ASSESSMENT**  
**CITY OF ONTARIO**

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AUGUST 30, 2022

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14539-03 HRA Report



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## **LIST OF ABBREVIATED TERMS**

(1)	Reference
µg	Microgram
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
APS	Auxiliary Power System
AQMD	Air Quality Management District
ARB	Air Resources Board
CEQA	California Environmental Quality Act
CPF	Cancer Potency Factor
DPM	Diesel Particulate Matter
EMFAC	Emission Factor Model
EPA	Environmental Protection Agency
HHD	Heavy Heavy-Duty
HI	Hazard Index
HRA	Health Risk Assessment
LHD	Light Heavy-Duty
MATES	Multiple Air Toxics Exposure Study
MEIR	Maximally Exposed Individual Receptor
MEIW	Maximally Exposed Individual Worker
MHD	Medium Heavy-Duty
NAD	North American Datum
OEHHA	Office of Environmental Health Hazard Assessment
PM10	Particulate Matter 10 microns in diameter or less
Project	5355 East Airport Drive
REL	Reference Exposure Level
RM	Recommended Measures
SCAQMD	South Coast Air Quality Management District
SRA	Source Receptor Area
TAC	Toxic Air Contaminant
TA	Traffic Analysis
URF	Unit Risk Factor
UTM	Universal Transverse Mercator
VMT	Vehicle Miles Traveled

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## EXECUTIVE SUMMARY

This report evaluates the potential mobile-source emissions health risk impacts associated with the development of the proposed Project. More specifically, this report evaluates potential health risk impacts that could result from exposure to Toxic Air Contaminants (TACs), in this case, diesel particulate matter (DPM) generated by heavy-duty diesel trucks accessing the site. This section summarizes the significance criteria and Project health risks.

The results of the health risk assessment from Project-generated DPM emissions are provided in Table ES-1, ES-2, and ES-3, presented subsequently.

### CONSTRUCTION IMPACTS

The land use with the greatest potential exposure to Project construction-source DPM emissions is Location R6 which is located approximately 8,840 feet northwest of the Project site at an existing residence located at 11210 Fourth Street. Since there are no private outdoor living areas (backyards) facing the Project site, receptor R6 is placed at the building façade facing the Project site. At the Maximally Exposed Individual Resident (MEIR), the maximum incremental cancer risk attributable to Project construction-source DPM emissions is estimated at <0.01 in one million, which is less than the SCAQMD's significance threshold of 10 in one million. At this same location, non-cancer risks were estimated to be <0.01, which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to adjacent land uses as a result of Project construction activity. All other receptors during construction activity would experience less risk than what is identified for this location. The nearest modeled receptors are illustrated on Exhibit 2-D.

### OPERATIONAL IMPACTS

#### Residential Exposure Scenario:

The residential land use with the greatest potential exposure to Project operational-source DPM emissions is Location R6 which is located approximately 8,840 feet northwest of the Project site at an existing residence located at 11210 Fourth Street. Since there are no private outdoor living areas (backyards) facing the Project site, receptor R6 is placed at the building façade facing the Project site. At the MEIR, the maximum incremental cancer risk attributable to Project operational-source DPM emissions is estimated at <0.01 in one million, which is less than the SCAQMD's significance threshold of 10 in one million. At this same location, non-cancer risks were estimated to be <0.01, which would not exceed the applicable significance threshold of 1.0. Because all other modeled residential receptors are exposed to lesser concentrations and are located at a greater distance from the Project site than the MEIR analyzed herein, and TACs generally dissipates with distance from the source, all other residential receptors in the vicinity of the Project site would be exposed to less emissions and therefore less risk than the MEIR identified herein. As such, the Project will not cause a significant human health or cancer risk to nearby residences. The nearest modeled receptors are illustrated on Exhibit 2-D.

Worker Exposure Scenario<sup>1</sup>:

The worker receptor land use with the greatest potential exposure to Project operational-source DPM emissions is Location R5, which represents the adjacent potential worker receptor approximately 58 feet east of the Project site. At the Maximally Exposed Individual Worker (MEIW), the maximum incremental cancer risk impact is 0.25 in one million which is less than the SCAQMD's threshold of 10 in one million. Maximum non-cancer risks at this same location were estimated to be <0.01, which would not exceed the applicable significance threshold of 1.0. Because all other modeled worker receptors are located at a greater distance than the MEIW analyzed herein, and DPM dissipates with distance from the source, all other worker receptors in the vicinity of the Project would be exposed to less emissions and therefore less risk than the MEIW identified herein. As such, the Project will not cause a significant human health or cancer risk to adjacent workers. The nearest modeled receptors are illustrated on Exhibit 2-D.

School Child Exposure Scenario:

Proximity to sources of toxics is critical to determining the impact. In traffic-related studies, the additional non-cancer health risk attributable to proximity was seen within 1,000 feet and was strongest within 300 feet. California freeway studies show about a 70-percent drop-off in particulate pollution levels at 500 feet. Based on California Air Resources Board (CARB) and SCAQMD emissions and modeling analyses, an 80-percent drop-off in pollutant concentrations is expected at approximately 1,000 feet from a distribution center (1).

The 1,000-foot evaluation distance is supported by research-based findings concerning TAC emission dispersion rates from roadways and large sources showing that emissions diminish substantially between 500 and 1,000 feet from emission sources.

A one-quarter mile radius, or 1,320 feet, is commonly utilized for identifying sensitive receptors, such as schools, that may be impacted by a proposed project. This radius is more robust than, and therefore provides a more health protective scenario for evaluation than the 1,000-foot impact radius identified above.

There are no schools within ¼ mile of the Project site. The nearest school is Chaparral Elementary School, which is located approximately 11,200 feet southeast of the Project site. Because there is no reasonable potential that TAC emissions would cause significant health impacts at distances of more than ¼ mile from the air pollution source, there would be no significant impacts that would occur to any schools in the vicinity of the Project.

**CONSTRUCTION AND OPERATIONAL IMPACTS**

The land use with the greatest potential increased cancer risk due to exposure to Project construction-source and operational-source DPM emissions is Location R6. As shown in Table ES-3, at this location, the maximum incremental cancer risk attributable to Project construction and

1 SCAQMD guidance does not require assessment of the potential health risk to on-site workers. Excerpts from the document OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines—The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2003), also indicate that it is not necessary to examine the health effects to on-site workers unless required by RCRA (Resource Conservation and Recovery Act) / CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) or the worker resides on-site.

operational DPM source emissions is estimated at <0.01 in one million, which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be <0.01, which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to adjacent land uses as a result of Project construction and operational activity. All other receptors during construction and operational activity would experience less risk than what is identified for this location. The nearest modeled receptors are illustrated on Exhibit 2-D.

**TABLE ES-1: SUMMARY OF CONSTRUCTION CANCER AND NON-CANCER RISKS**

Time Period	Location	Maximum Lifetime Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds Significance Threshold
0.96 Year Exposure	Maximum Exposed Sensitive Receptor	<0.01	10	NO
Time Period	Location	Maximum Hazard Index	Significance Threshold	Exceeds Significance Threshold
Annual Average	Maximum Exposed Sensitive Receptor	≤0.01	1.0	NO

**TABLE ES-2: SUMMARY OF OPERATIONAL CANCER AND NON-CANCER RISKS**

Time Period	Location	Maximum Lifetime Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds Significance Threshold
30 Year Exposure	Maximum Exposed Sensitive Receptor	<0.01	10	NO
25 Year Exposure	Maximum Exposed Worker Receptor	0.25	10	NO
Time Period	Location	Maximum Hazard Index	Significance Threshold	Exceeds Significance Threshold
Annual Average	Maximum Exposed Sensitive Receptor	≤0.01	1.0	NO
Annual Average	Maximum Exposed Worker Receptor	≤0.01	1.0	NO

**TABLE ES-3: SUMMARY OF CONSTRUCTION AND OPERATIONAL CANCER AND NON-CANCER RISKS**

<b>Time Period</b>	<b>Location</b>	<b>Maximum Lifetime Cancer Risk (Risk per Million)</b>	<b>Significance Threshold (Risk per Million)</b>	<b>Exceeds Significance Threshold</b>
30 Year Exposure	Maximum Exposed Sensitive Receptor	<0.01	10	NO
<b>Time Period</b>	<b>Location</b>	<b>Maximum Hazard Index</b>	<b>Significance Threshold</b>	<b>Exceeds Significance Threshold</b>
Annual Average	Maximum Exposed Sensitive Receptor	≤0.01	1.0	NO

# 1 INTRODUCTION

The South Coast Air Quality Management District (SCAQMD) typically issues a comment letter on the Notice of Preparation of a CEQA Document. Per the SCAQMD's typical comment letter, if a proposed Project is expected to generate/attract diesel trucks, which emit diesel particulate matter (DPM) or other Toxic Air Contaminants (TACs), preparation of a HRA is necessary. This document serves to meet the SCAQMD's request for preparation of an HRA. This HRA has been prepared in accordance with the document Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis (2) and is comprised of all relevant and appropriate procedures presented by the United States Environmental Protection Agency (U.S. EPA), California EPA and SCAQMD. Cancer risk is expressed in terms of expected incremental incidence per million population. The SCAQMD has established an incidence rate of ten (10) persons per million as the maximum acceptable incremental cancer risk due to TAC exposure from a project such as the proposed Project. This threshold serves to determine whether or not a given project has a potentially significant development-specific and cumulatively considerable impact.

The AQMD has published a report on how to address cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution* (3). In this report the AQMD states (Page D-3):

*"...the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The project specific (project increment) significance threshold is  $HI > 1.0$  while the cumulative (facility-wide) is  $HI > 3.0$ . It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.*

*Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."*

The SCAQMD has also established non-carcinogenic risk parameters for use in HRAs. Non-carcinogenic risks are quantified by calculating a "hazard index," expressed as the ratio between the ambient pollutant concentration and its toxicity or Reference Exposure Level (REL). An REL is a concentration at or below which health effects are not likely to occur. A hazard index less than one (1.0) means that adverse health effects are not expected. In this HRA, non-carcinogenic exposures of less than 1.0 are considered less-than-significant. Both the cancer risk and non-carcinogenic risk thresholds are applied to the nearest sensitive receptors below.



## 1.1 SITE LOCATION

The proposed Project is located at 5355 East Airport Drive in the City of Ontario as shown on Exhibit 1-A. The Project is located approximately 2.7 miles east of the Ontario International Airport (ONT).

## 1.2 PROJECT DESCRIPTION

The Project is proposed to consist of a single 270,337-square-foot (sf) industrial building. This analysis assumes up to 27,034-sf high-cube cold storage use (10% of the total industrial building sf) and 243,303-sf of warehouse use (90% of total industrial building). The site plan for the proposed Project is shown on Exhibit 1-B. The Project is anticipated to be developed within a single phase with an Opening Year of 2024. Per the *5355 East Airport Drive Vehicle Miles Traveled Analysis* prepared by Urban Crossroads, Inc., the proposed Project is expected to generate approximately 476 total trips per day (238 vehicles inbound + 238 vehicles outbound) which include 308 total passenger vehicle trips per day (154 passenger vehicles inbound + 154 passenger vehicles outbound) and 168 total truck trips per day (84 trucks inbound + 84 trucks outbound) (4).

### EXHIBIT 1-A: LOCATION MAP

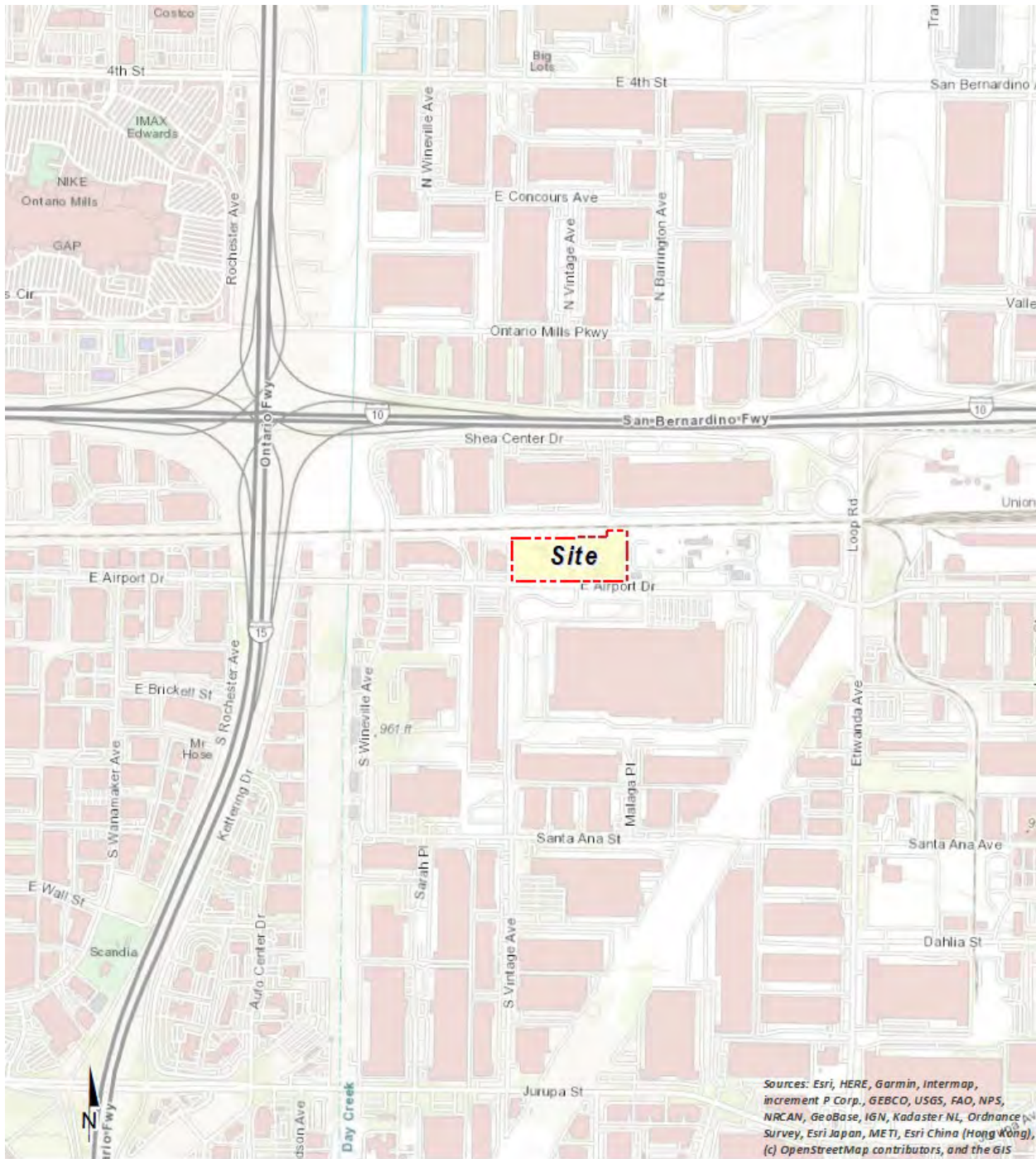
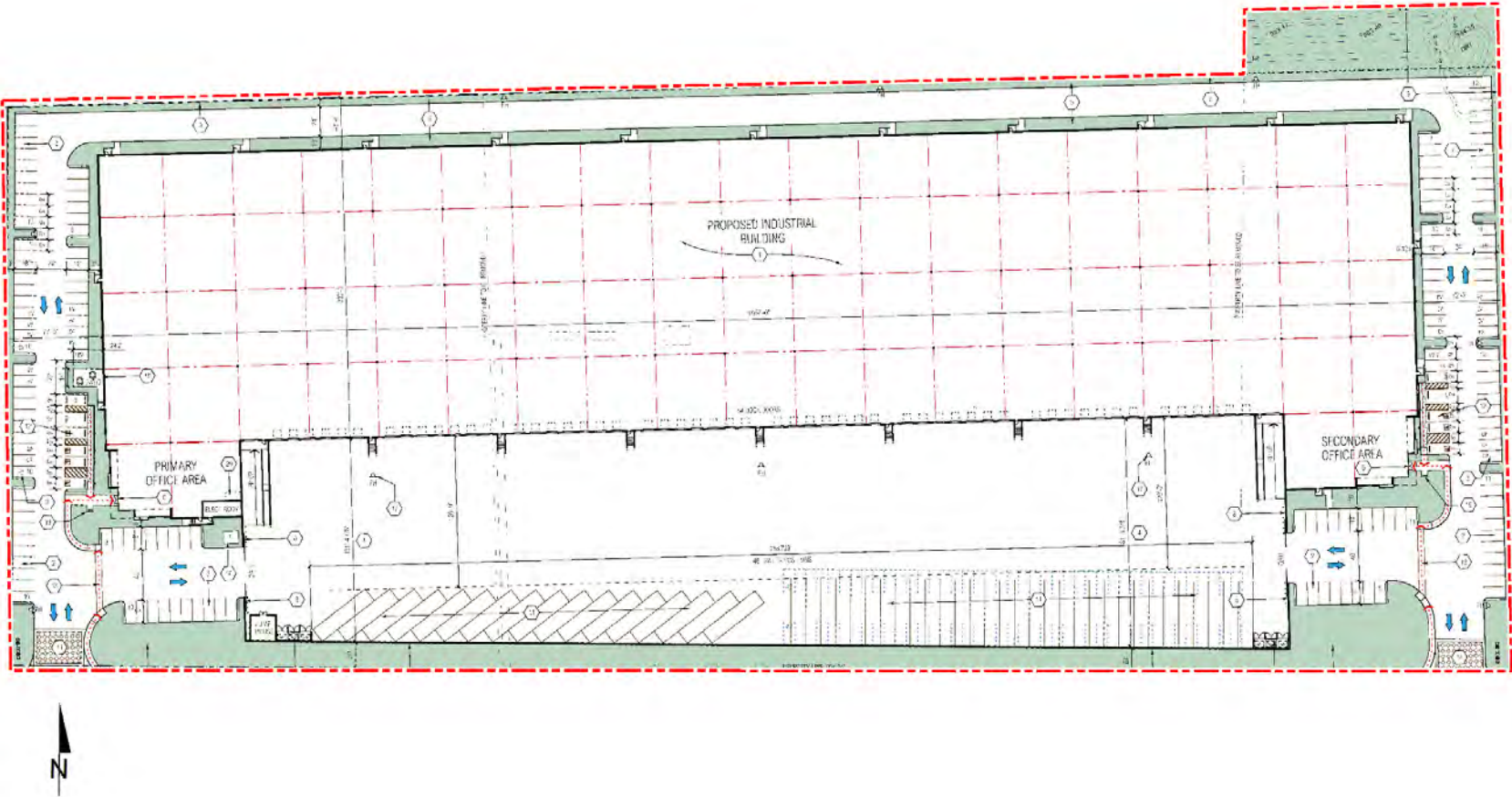


EXHIBIT 1-B: SITE PLAN



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## 2 BACKGROUND

### 2.1 BACKGROUND ON RECOMMENDED METHODOLOGY

This HRA is based on SCAQMD guidelines to produce conservative estimates of human health risk posed by exposure to DPM. The conservative nature of this analysis is due primarily to the following factors:

- The ARB-adopted diesel exhaust Unit Risk Factor (URF) of 300 in one million per  $\mu\text{g}/\text{m}^3$  is based upon the upper 95 percentile of estimated risk for each of the epidemiological studies utilized to develop the URF. Using the 95<sup>th</sup> percentile URF represents a very conservative (health-protective) risk posed by DPM because it represents breathing rates that are high for the human body (95% higher than the average population).
- The emissions derived assume that every truck accessing the Project site will idle for 15 minutes under the unmitigated scenario, and this is an overestimation of actual idling times and thus conservative.<sup>2</sup> CARB's anti-idling requirements impose a 5-minute maximum idling time and therefore the analysis conservatively overestimates DPM emissions from idling by a factor of 3.

### 2.2 CONSTRUCTION HEALTH RISK ASSESSMENT

#### 2.2.1 EMISSIONS CALCULATIONS

The emissions calculations for the construction HRA component are based on an assumed mix of construction equipment and hauling activity as presented in the *5355 East Airport Drive Air Quality Impact Analysis* ("technical study") prepared by Urban Crossroads, Inc. (5)

Construction related DPM emissions are expected to occur primarily as a function of heavy-duty construction equipment that would be operating on-site.

As discussed in the technical study, the Project would result in approximately 250 total working-days of construction activity. The construction duration by phase is shown on Table 2-1. A detailed summary of construction equipment assumptions by phase is provided at Table 2-2. The CalEEMod emissions outputs are presented in Appendix 2.1. The modeled emission sources for construction activity are illustrated on Exhibit 2-A.

<sup>2</sup> Although the Project is required to comply with ARB's idling limit of 5 minutes, staff at SCAQMD recommends that the on-site idling emissions should be estimated for 15 minutes of truck idling (personal communication, in person, with Jillian Wong, December 22, 2016), which would take into account on-site idling which occurs while the trucks are waiting to pull up to the truck bays, idling at the bays, idling at check-in and check-out, etc.

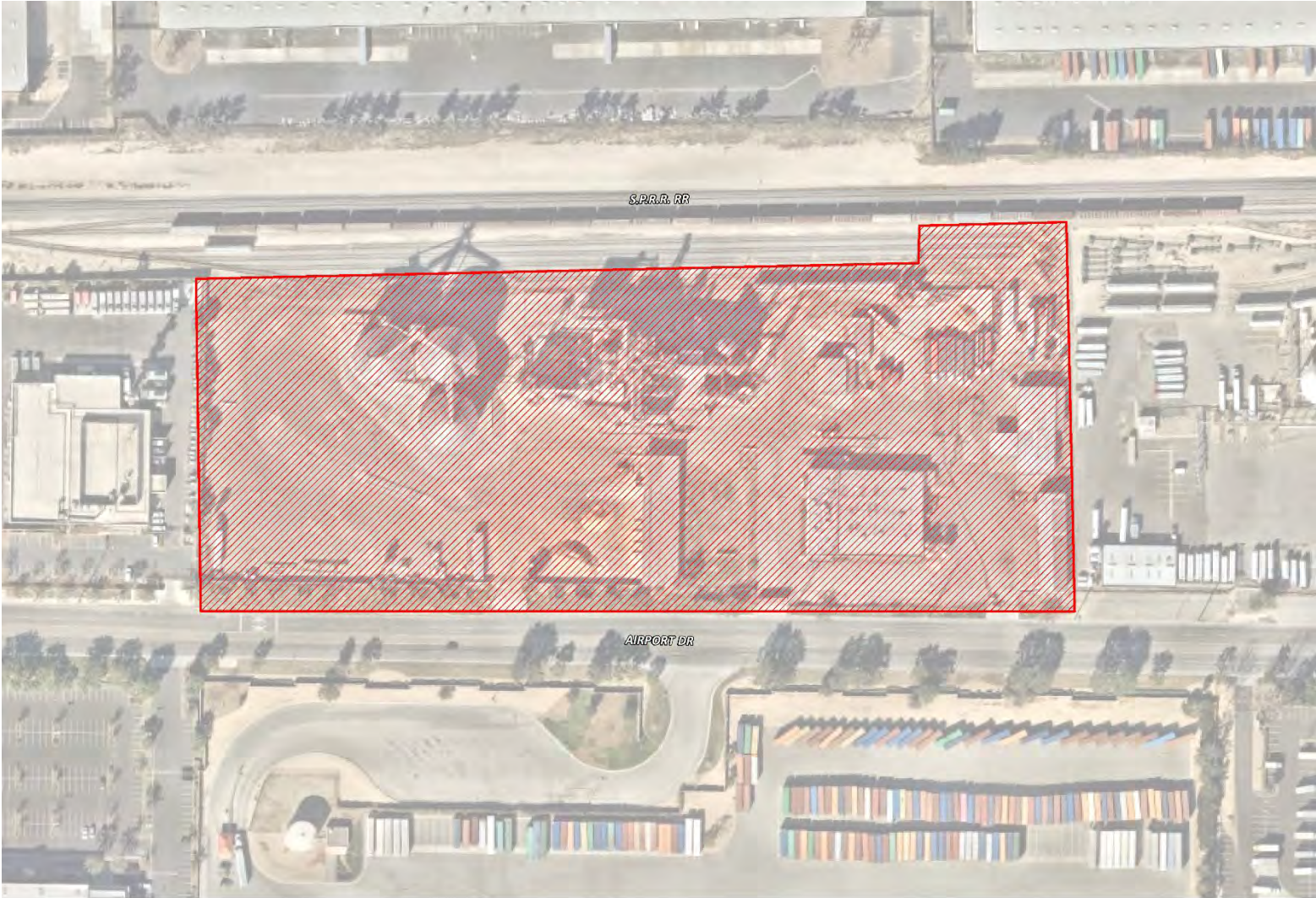
**TABLE 2-1: CONSTRUCTION DURATION**

Construction Activity	Start Date	End Date	Days
Demolition/Crushing	05/02/2023	07/24/2023	60
Site Preparation	07/25/2023	09/04/2023	30
Grading	07/25/2023	09/04/2023	30
Building Construction	09/05/2023	04/15/2024	160
Paving	02/13/2024	04/15/2024	45
Architectural Coating/Landscaping	03/05/2024	04/15/2024	30


**TABLE 2-2: CONSTRUCTION EQUIPMENT ASSUMPTIONS**

Construction Activity	Equipment	Amount	Hours Per Day
Demolition/Crushing	Rubber Tired Dozers	2	8
	Excavators	3	8
	Concrete/Industrial Saws	1	8
	Crushing/Proc. Equipment <sup>2</sup>	1	8
Site Preparation	Rubber Tired Dozers	3	8
	Crawler Tractors	4	8
Grading	Graders	1	8
	Excavators	2	8
	Scrapers	2	8
	Rubber Tired Dozers	1	8
	Crawler Tractors	2	8
Building Construction	Forklifts	5	8
	Generator Sets	2	8
	Cranes	2	8
	Welders	2	8
	Crawler Tractors	5	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	1	8

**EXHIBIT 2-A: MODELED CONSTRUCTION EMISSION SOURCES**



**LEGEND:**

 Construction Activity

## 2.3 OPERATIONAL HEALTH RISK ASSESSMENT

### 2.3.1 ON-SITE AND OFF-SITE TRUCK ACTIVITY

Vehicle DPM emissions were calculated using emission factors for particulate matter less than 10 $\mu$ m in diameter (PM<sub>10</sub>) generated with the 2021 version of the Emission FACTor model (EMFAC) developed by the CARB. EMFAC 2021 is a mathematical model that CARB developed to calculate emission rates from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the ARB to project changes in future emissions from on-road mobile sources (6). The most recent version of this model, EMFAC 2021, incorporates regional motor vehicle data, information and estimates regarding the distribution of vehicle miles traveled (VMT) by speed, and number of starts per day.

Several distinct emission processes are included in EMFAC 2021. Emission factors calculated using EMFAC 2021 are expressed in units of grams per vehicle miles traveled (g/VMT) or grams per idle-hour (g/idle-hr), depending on the emission process. The emission processes and corresponding emission factor units associated with diesel particulate exhaust for this Project are presented below.

For this Project, annual average PM<sub>10</sub> emission factors were generated by running EMFAC 2021 in EMFAC Mode for vehicles in the San Bernardino County jurisdiction. The EMFAC Mode generates emission factors in terms of grams of pollutant emitted per vehicle activity and can calculate a matrix of emission factors at specific values of temperature, relative humidity, and vehicle speed. The model was run for speeds traveled in the vicinity of the Project. The vehicle travel speeds for each segment modeled are summarized below.

- Idling – on-site loading/unloading and truck gate
- 5 miles per hour – on-site vehicle movement including driving and maneuvering
- 25 miles per hour – off-site vehicle movement including driving and maneuvering.

Calculated emission factors are shown at Table 2-3. As a conservative measure, a 2024 EMFAC 2021 run was conducted and a static 2024 emissions factor data set was used for the entire duration of analysis herein (e.g., 30 years). Use of 2024 emission factors would overstate potential impacts since this approach assumes that emission factors remain “static” and do not change over time due to fleet turnover or cleaner technology with lower emissions that would be incorporated into vehicles after 2024. Additionally, based on EMFAC 2021, Light-Heavy-Duty Trucks are comprised of 51.2% diesel, Medium-Heavy-Duty Trucks are comprised of 91.1% diesel, and Heavy-Heavy-Duty Trucks are comprised of 85.2% diesel. Trucks fueled by diesel are accounted for by these percentages accordingly in the emissions factor generation. Appendix 2.2 includes additional details on the emissions estimates from EMFAC.

The vehicle DPM exhaust emissions were calculated for running exhaust emissions. The running exhaust emissions were calculated by applying the running exhaust PM<sub>10</sub> emission factor (g/VMT) from EMFAC over the total distance traveled. The following equation was used to estimate off-site emissions for each of the different vehicle classes comprising the mobile sources (7):



$$\text{Emissions}_{\text{SpeedA}} \text{ (g/s)} = \text{EF}_{\text{RunExhaust}} \text{ (g/VMT)} * \text{Distance (VMT/trip)} * \text{Number of Trips (trips/day)} / \text{seconds per day}$$

Where:

$\text{Emissions}_{\text{SpeedA}}$  (g/s): Vehicle emissions at a given speed A;

$\text{EF}_{\text{RunExhaust}}$  (g/VMT): EMFAC running exhaust PM<sub>10</sub> emission factor at speed A;

Distance (VMT/trip): Total distance traveled per trip.

Similar to off-site traffic, on-site vehicle running emissions were calculated by applying the running exhaust PM<sub>10</sub> emission factor (g/VMT) from EMFAC and the total vehicle trip number over the length of the driving path using the same formula presented above for on-site emissions. In addition, on-site vehicle idling exhaust emissions were calculated by applying the idle exhaust PM<sub>10</sub> emission factor (g/idle-hr) from EMFAC and the total truck trip over the total assumed idle time (15 minutes). The following equation was used to estimate the on-site vehicle idling emissions for each of the different vehicle classes (7):

$$\text{Emissions}_{\text{idle}} \text{ (g/s)} = \text{EF}_{\text{idle}} \text{ (g/hr)} * \text{Number of Trips (trips/day)} * \text{Idling Time (min/trip)} * 60 \text{ minutes per hour} / \text{seconds per day}$$

Where:

$\text{Emissions}_{\text{idle}}$  (g/s): Vehicle emissions during idling;

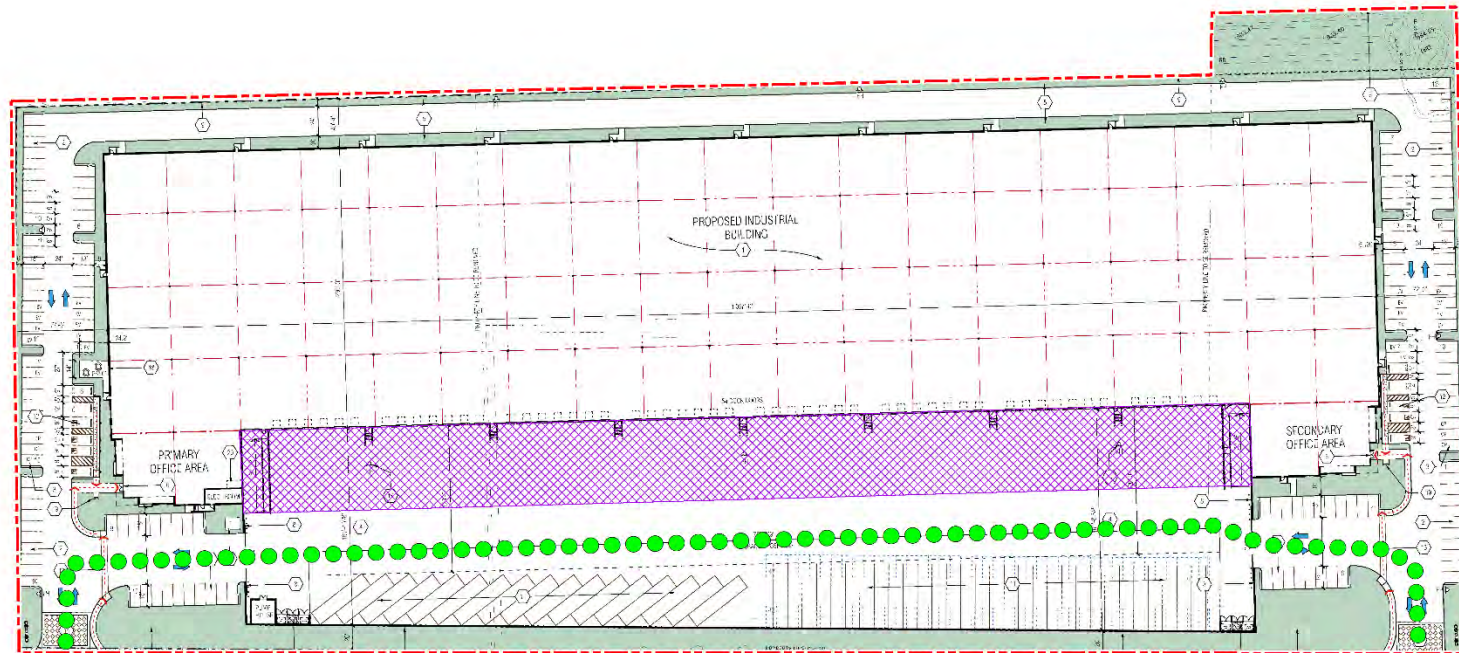
$\text{EF}_{\text{idle}}$  (g/s): EMFAC idle exhaust PM<sub>10</sub> emission factor.

**TABLE 2-3: 2024 WEIGHTED AVERAGE DPM EMISSIONS FACTORS**

Speed	Weighted Average
0 (idling)	0.08568 (g/idle-hr)
5	0.02107 (g/s)
25	0.00889 (g/s)

Each roadway was modeled as a line source (made up of multiple adjacent volume sources). Due to the large number of volume sources modeled for this analysis, the corresponding coordinates of each volume source have not been included in this report but are included in Appendix 2.3. The DPM emission rate for each volume source was calculated by multiplying the emission factor (based on the average travel speed along the roadway) by the number of trips and the distance traveled along each roadway segment and dividing the result by the number of volume sources along that roadway, as illustrated on Table 2-4. The modeled emission sources are illustrated on Exhibit 2-B for on-site sources and Exhibit 2-C for off-site sources. The modeling domain is limited to the Project's primary truck route and includes off-site sources in the study area for more than ¼ mile. This modeling domain is more inclusive and conservative than using only a ¼ mile modeling domain which is the distance supported by several reputable studies which conclude that the greatest potential risks occur within a ¼ mile of the primary source of emissions (1) (in the case of the Project, the primary source of emissions is the on-site idling and on-site travel).

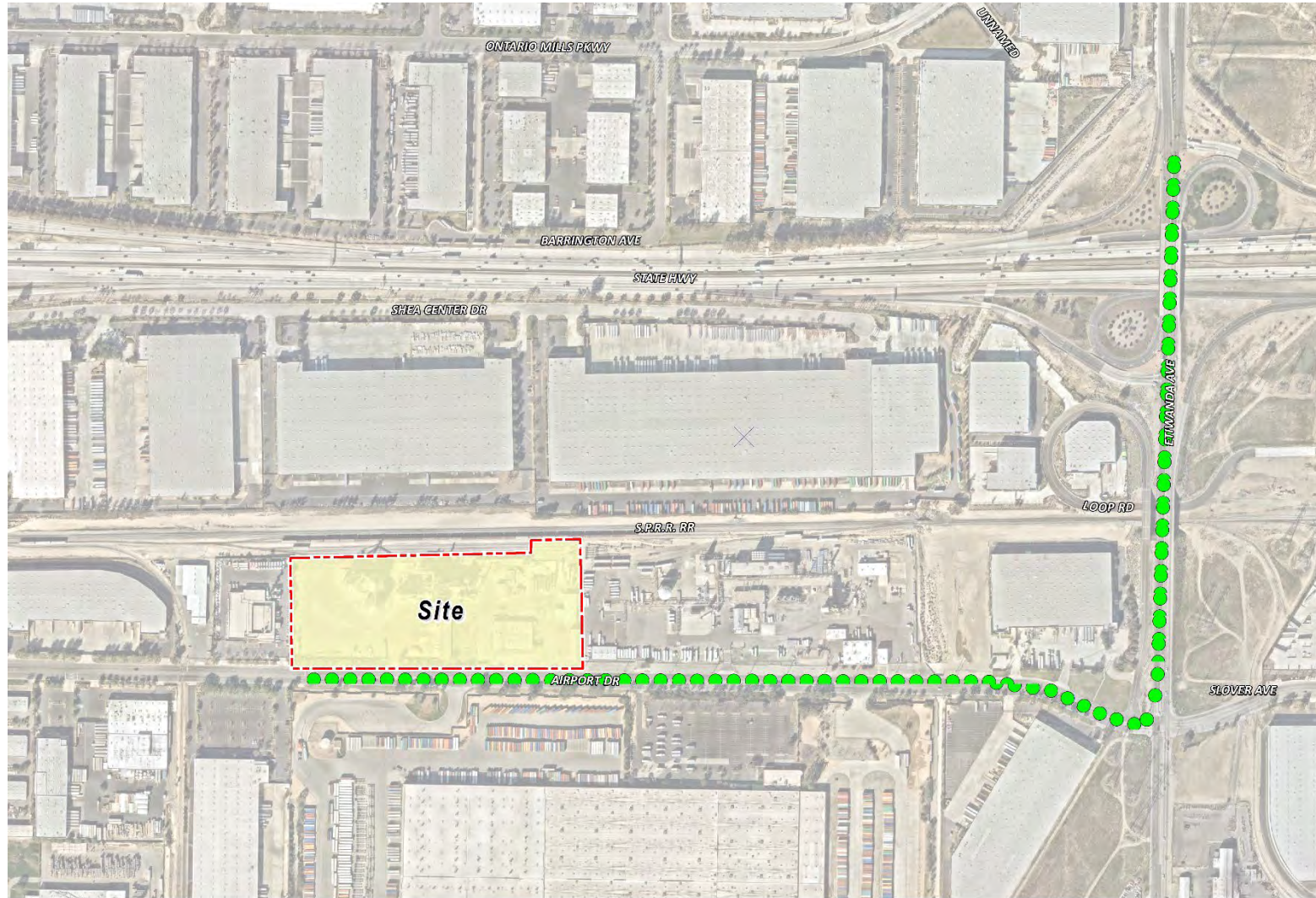
EXHIBIT 2-B: MODELED ON-SITE EMISSION SOURCES



LEGEND:

- Site Boundary
- Loading Dock Activity
- Truck Movements

**EXHIBIT 2-C: MODELED OFF-SITE EMISSION SOURCES**



**LEGEND:**

- Site Boundary
- Truck Movements

**TABLE 2-4: DPM EMISSIONS FROM PROJECT TRUCKS (2024 ANALYSIS YEAR)**

<b>Truck Emission Rates</b>						
<b>Source</b>	<b>Trucks Per Day</b>	<b>VMT<sup>a</sup> (miles/day)</b>	<b>Truck Emission Rate<sup>b</sup> (grams/mile)</b>	<b>Truck Emission Rate<sup>b</sup> (grams/idle-hour)</b>	<b>Daily Truck Emissions<sup>c</sup> (grams/day)</b>	<b>Modeled Emission Rates (g/second)</b>
On-Site Idling	84			0.0857	3.90	4.517E-05
On-Site Travel	168	41.19	0.0211		1.28	1.482E-05
Off-Site Travel - E. Airport Dr./S. Etiwanda Ave. 100% Inbound/Outbound	168	193.05	0.0089		2.10	2.434E-05
<p><sup>a</sup> Vehicle miles traveled are for modeled truck route only.</p> <p><sup>b</sup> Emission rates determined using EMFAC 2021. Idle emission rates are expressed in grams per idle hour rather than grams per mile.</p> <p><sup>c</sup> This column includes the total truck travel and truck idle emissions. For idle emissions this column includes emissions based on the assumption that each truck idles for 15 minutes.</p>						

On-site truck idling was estimated to occur as trucks enter and travel through the Project site. Although the Project's diesel-fueled truck and equipment operators will be required by State law to comply with CARB's idling limit of 5 minutes, SCAQMD recommends that the on-site idling emissions be calculated assuming 15 minutes of truck idling (8), which would take into account on-site idling which occurs while the trucks are waiting to pull up to the truck bays, idling at the bays, idling at check-in and check-out, etc. As such, this analysis calculates truck idling at 15 minutes, consistent with SCAQMD's recommendation.

As summarized in the *5355 East Airport Drive Traffic Analysis*, the proposed Project is expected to generate a total of approximately 476 trip-ends per day with 168 truck trip-ends per day (in actual vehicles) (4).

## 2.3 EXPOSURE QUANTIFICATION

The analysis herein has been conducted in accordance with the guidelines in the Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis (2). SCAQMD recommends using the Environmental Protection Agency's (U.S. EPA's) AERMOD model. For purposes of this analysis, the Lakes AERMOD View (Version 10.2.1) was used to calculate annual average particulate concentrations associated with site operations. Lakes AERMOD View was utilized to incorporate the U.S. EPA's latest AERMOD Version 21112 (9).

The model offers additional flexibility by allowing the user to assign an initial release height and vertical dispersion parameters for mobile sources representative of a roadway. For this HRA, the roadways were modeled as adjacent volume sources. Roadways were modeled using the U.S. EPA's haul route methodology for modeling of on-site and off-site truck movement. More specifically, the Haul Road Volume Source Calculator in Lakes AERMOD View has been utilized to determine the release height parameters. Based on the U.S. EPA methodology, the Project's modeled sources would result in a release height of 3.49 meters, and an initial lateral dimension of 4.0 meters, and an initial vertical dimension of 3.25 meters.

SCAQMD-recommended model parameters are presented in Table 2-5 (10). The model requires additional input parameters including emission data and local meteorology. Meteorological data from the SCAQMD's Ontario Airport monitoring station was used to represent local weather conditions and prevailing winds (10).

**TABLE 2-5: AERMOD MODEL PARAMETERS**

Dispersion Coefficient (Urban/Rural)	Urban (Population 2,035,210)
Terrain (Flat/Elevated)	Elevated (Regulatory Default)
Averaging Time	1 year (5-year Meteorological Data Set)
Receptor Height	0 meters (Regulatory Default)

Universal Transverse Mercator (UTM) coordinates for World Geodetic System (WGS) 84 were used to locate the Project site boundaries, each volume source location, and receptor locations in the Project site's vicinity. The AERMOD dispersion model summary output files for the

proposed Project are presented in Appendix 2.3. Modeled sensitive receptors were placed at residential and non-residential locations.

Receptors may be placed at applicable structure locations for residential and worker property and not necessarily the boundaries of the properties containing these uses because the human receptors (residents and workers) spend a majority of their time at the residence or in the workplace's building, and not on the property line. It should be noted that the primary purpose of receptor placement is focused on long-term exposure. For example, the HRA evaluates the potential health risks to residents and workers over a period of 30 or 25 years of exposure, respectively. Notwithstanding, as a conservative measure, receptors were placed at either the outdoor living area or the building façade, whichever is closer to the Project site.

For purposes of this HRA, receptors include both residential and non-residential (worker) land uses in the vicinity of the Project. These receptors are included in the HRA since residents and workers may be exposed at these locations over a long-term duration of 30 and 25 years, respectively. This methodology is consistent with SCAQMD and the California Environmental Protection Agency, Office of Environmental Health Hazard Assessment (OEHHA) recommended guidance.

Any impacts to residents or workers located further away from the Project site than the modeled residential and workers would have a lesser impact than what has already been disclosed in the HRA at the MEIR and MEIW because concentrations dissipate with distance.

Consistent with SCAQMD modeling guidance, all receptors were set to existing elevation height so that only ground-level concentrations are analyzed (11). United States Geological Survey (USGS) Digital Elevation Model (DEM) terrain data based on a 7.5-minute topographic quadrangle map series using AERMAP was utilized in the HRA modeling to set elevations (12).

Discrete variants for daily breathing rates, exposure frequency, and exposure duration were obtained from relevant distribution profiles presented in the 2015 OEHHA Guidelines. Tables 2-6 through 2-8 summarize the Exposure Parameters for Residents and Workers based on 2015 OEHHA Guidelines. Appendix 2.4 includes the detailed risk calculation.

**TABLE 2-6: EXPOSURE ASSUMPTIONS FOR INDIVIDUAL CANCER RISK (CONSTRUCTION ACTIVITY)**

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Fraction of Time at Home	Exposure Frequency (days/year)	Exposure Time (hours/day)
0 to 2	1,090	10	0.96	1.0	260	8

**TABLE 2-7: EXPOSURE ASSUMPTIONS FOR INDIVIDUAL CANCER RISK (30 YEAR RESIDENTIAL)**

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Fraction of Time at Home	Exposure Frequency (days/year)	Exposure Time (hours/day)
-0.25 to 0	361	10	0.25	0.85	350	24
0 to 2	1,090	10	2	0.85	350	24
2 to 16	572	3	14	0.72	350	24
16 to 30	261	1	14	0.73	350	24

**TABLE 2-8: EXPOSURE ASSUMPTIONS FOR INDIVIDUAL CANCER RISK (25 YEAR WORKER)**

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Exposure Frequency (days/year)	Exposure Time (hours/day)
16 to 41	230	1	25	250	12

## 2.4 CARCINOGENIC CHEMICAL RISK

The SCAQMD CEQA Air Quality Handbook (1993) states that TAC emissions are considered significant if a HRA shows an increased risk of greater than 10 in one million. Based on guidance from the SCAQMD in the document Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis (2), for purposes of this analysis, 10 in one million is used as the cancer risk threshold for the proposed Project.

Excess cancer risks are estimated as the upper-bound incremental probability that an individual will develop cancer over a lifetime as a direct result of exposure to potential carcinogens over a specified exposure duration. The estimated risk is expressed as a unitless probability. The cancer risk attributed to a chemical is calculated by multiplying the chemical intake or dose at the human exchange boundaries (e.g., lungs) by the chemical-specific cancer potency factor (CPF). A risk level of 10 in one million implies a likelihood that up to 10 people, out of one million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the levels of toxic air contaminants over a specified duration of time.

Guidance from CARB and OEHHA recommends a refinement to the standard point estimate approach when alternate human body weights and breathing rates are utilized to assess risk for susceptible subpopulations such as children. For the inhalation pathway, the procedure requires the incorporation of several discrete variates to effectively quantify dose. Once determined, contaminant dose is multiplied by the cancer potency factor (CPF) in units of inverse dose expressed in milligrams per kilogram per day (mg/kg/day)<sup>-1</sup> to derive the cancer risk estimate. Therefore, to assess exposures, the following dose algorithm was utilized.

$$\text{DOSE}_{\text{air}} = (\text{C}_{\text{air}} \times [\text{BR}/\text{BW}] \times A \times \text{EF}) \times (1 \times 10^{-6})$$

Where:

DOSE <sub>air</sub>	=	chronic daily intake (mg/kg/day)
C <sub>air</sub>	=	concentration of contaminant in air (ug/m <sup>3</sup> )
[BR/BW]	=	daily breathing rate normalized to body weight (L/kg BW-day)
A	=	inhalation absorption factor
EF	=	exposure frequency (days/365 days)
BW	=	body weight (kg)
1 x 10 <sup>-6</sup>	=	conversion factors (ug to mg, L to m <sup>3</sup> )

$$\text{RISK}_{\text{air}} = \text{DOSE}_{\text{air}} \times \text{CPF} \times \text{ED}/\text{AT}$$

Where:

DOSE <sub>air</sub>	=	chronic daily intake (mg/kg/day)
CPF	=	cancer potency factor
ED	=	number of years within particular age group
AT	=	averaging time

## 2.5 NON-CARCINOGENIC EXPOSURES

An evaluation of the potential noncarcinogenic effects of chronic exposures was also conducted. Adverse health effects are evaluated by comparing a compound's annual concentration with its toxicity factor or Reference Exposure Level (REL). The REL for diesel particulates was obtained from OEHHA for this analysis. The chronic reference exposure level (REL) for DPM was established by OEHHA as 5 µg/m<sup>3</sup> (13).

The non-cancer hazard index was calculated (consistent with SCAQMD methodology) as follows:

The relationship for the non-cancer health effects of DPM is given by the following equation:

$$\text{HI}_{\text{DPM}} = \text{C}_{\text{DPM}}/\text{REL}_{\text{DPM}}$$

Where:

HI <sub>DPM</sub>	=	Hazard Index; an expression of the potential for non-cancer health effects.
C <sub>DPM</sub>	=	Annual average DPM concentration (µg/m <sup>3</sup> ).
REL <sub>DPM</sub>	=	Reference exposure level (REL) for DPM; the DPM concentration at which no adverse health effects are anticipated.



## 2.6 POTENTIAL PROJECT-RELATED DPM SOURCE CANCER AND NON-CANCER RISKS

### CONSTRUCTION IMPACTS

The land use with the greatest potential exposure to Project construction-source DPM emissions is Location R6 which is located approximately 8,840 feet northwest of the Project site at an existing residence located at 11210 Fourth Street. Since there are no private outdoor living areas (backyards) facing the Project site, receptor R6 is placed at the building façade facing the Project site. At the Maximally Exposed Individual Resident (MEIR), the maximum incremental cancer risk attributable to Project construction-source DPM emissions is estimated at <0.01 in one million, which is less than the SCAQMD's significance threshold of 10 in one million. At this same location, non-cancer risks were estimated to be <0.01, which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to adjacent land uses as a result of Project construction activity. All other receptors during construction activity would experience less risk than what is identified for this location. The nearest modeled receptors are illustrated on Exhibit 2-D.

### OPERATIONAL IMPACTS

#### Residential Exposure Scenario:

The residential land use with the greatest potential exposure to Project operational-source DPM emissions is Location R6 which is located approximately 8,840 feet northwest of the Project site at an existing residence located at 11210 Fourth Street. Since there are no private outdoor living areas (backyards) facing the Project site, receptor R6 is placed at the building façade facing the Project site. At the MEIR, the maximum incremental cancer risk attributable to Project operational-source DPM emissions is estimated at <0.01 in one million, which is less than the SCAQMD's significance threshold of 10 in one million. At this same location, non-cancer risks were estimated to be <0.01, which would not exceed the applicable significance threshold of 1.0. Because all other modeled residential receptors are exposed to lesser concentrations and are located at a greater distance from the Project site than the MEIR analyzed herein, and TACs generally dissipates with distance from the source, all other residential receptors in the vicinity of the Project site would be exposed to less emissions and therefore less risk than the MEIR identified herein. As such, the Project will not cause a significant human health or cancer risk to nearby residences. The nearest modeled receptors are illustrated on Exhibit 2-D.

#### Worker Exposure Scenario<sup>3</sup>:

The worker receptor land use with the greatest potential exposure to Project operational-source DPM emissions is Location R5, which represents the adjacent potential worker receptor approximately 58 feet east of the Project site. At the Maximally Exposed Individual Worker

3 SCAQMD guidance does not require assessment of the potential health risk to on-site workers. Excerpts from the document OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines—The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2003), also indicate that it is not necessary to examine the health effects to on-site workers unless required by RCRA (Resource Conservation and Recovery Act) / CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) or the worker resides on-site.

(MEIW), the maximum incremental cancer risk impact is 0.25 in one million which is less than the SCAQMD's threshold of 10 in one million. Maximum non-cancer risks at this same location were estimated to be <0.01, which would not exceed the applicable significance threshold of 1.0. Because all other modeled worker receptors are located at a greater distance than the MEIW analyzed herein, and DPM dissipates with distance from the source, all other worker receptors in the vicinity of the Project would be exposed to less emissions and therefore less risk than the MEIW identified herein. As such, the Project will not cause a significant human health or cancer risk to adjacent workers. The nearest modeled receptors are illustrated on Exhibit 2-D.

School Child Exposure Scenario:

Proximity to sources of toxics is critical to determining the impact. In traffic-related studies, the additional non-cancer health risk attributable to proximity was seen within 1,000 feet and was strongest within 300 feet. California freeway studies show about a 70-percent drop-off in particulate pollution levels at 500 feet. Based on California Air Resources Board (CARB) and SCAQMD emissions and modeling analyses, an 80-percent drop-off in pollutant concentrations is expected at approximately 1,000 feet from a distribution center (1).

The 1,000-foot evaluation distance is supported by research-based findings concerning TAC emission dispersion rates from roadways and large sources showing that emissions diminish substantially between 500 and 1,000 feet from emission sources.

A one-quarter mile radius, or 1,320 feet, is commonly utilized for identifying sensitive receptors, such as schools, that may be impacted by a proposed project. This radius is more robust than, and therefore provides a more health protective scenario for evaluation than the 1,000-foot impact radius identified above.

There are no schools within ¼ mile of the Project site. The nearest school is Chaparral Elementary School, which is located approximately 11,200 feet southeast of the Project site. Because there is no reasonable potential that TAC emissions would cause significant health impacts at distances of more than ¼ mile from the air pollution source, there would be no significant impacts that would occur to any schools in the vicinity of the Project.

**CONSTRUCTION AND OPERATIONAL IMPACTS**

The land use with the greatest potential increased cancer risk due to exposure to Project construction-source and operational-source DPM emissions is Location R6. As shown in Table ES-3, at this location, the maximum incremental cancer risk attributable to Project construction and operational DPM source emissions is estimated at <0.01 in one million, which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be <0.01, which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to adjacent land uses as a result of Project construction and operational activity. All other receptors during construction and operational activity would experience less risk than what is identified for this location. The nearest modeled receptors are illustrated on Exhibit 2-D.

EXHIBIT 2-D: RECEPTOR LOCATIONS



Source: Esri, Microsoft, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

**LEGEND:**

- Site Boundary
- Receptor Locations
- Distance from receptor to Project site boundary (in feet)

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### 3 REFERENCES

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## 4 CERTIFICATIONS

The contents of this health risk assessment represent an accurate depiction of the impacts to sensitive receptors associated with the proposed 5355 East Airport Drive Project. The information contained in this health risk assessment report is based on the best available data at the time of preparation. If you have any questions, please contact me at (949) 660-1994.

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### EDUCATION

Master of Science in Environmental Studies  
California State University, Fullerton • May 2010

Bachelor of Arts in Environmental Analysis and Design  
University of California, Irvine • June 2006

### PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners  
AWMA – Air and Waste Management Association  
ASTM – American Society for Testing and Materials

### PROFESSIONAL CERTIFICATIONS

Environmental Site Assessment – American Society for Testing and Materials • June 2013  
Planned Communities and Urban Infill – Urban Land Institute • June 2011  
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April 2008  
Principles of Ambient Air Monitoring – California Air Resources Board • August 2007  
AB2588 Regulatory Standards – Trinity Consultants • November 2006  
Air Dispersion Modeling – Lakes Environmental • June 2006

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**CALEEMOD OUTPUTS**

# IE Distribution Center #14 (Construction) Detailed Report

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## 1.1. Basic Project Information

Data Field	Value
Project Name	IE Distribution Center #14 (Construction)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	20.8
Location	34.06334566920109, -117.53410603073728
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5288
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	243	1000sqft	7.08	243,303	65,274	0.00	—	—
Refrigerated Warehouse-No Rail	27.0	1000sqft	0.79	27,034	7,253	0.00	—	—

Parking Lot	299	Space	1.53	0.00	0.00	0.00	—	—
Other Asphalt Surfaces	161	1000sqft	3.68	0.00	0.00	0.00	—	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

## 2. Emissions Summary

### 2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.13	47.2	39.6	71.8	0.13	0.38	9.62	9.95	0.36	4.00	4.32	—	15,836	15,836	0.86	0.60	10.9	16,044
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.08	47.1	30.4	53.5	0.07	0.38	2.20	2.58	0.36	0.52	0.89	—	9,589	9,589	0.43	0.25	0.28	9,674
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.67	4.08	10.5	18.5	0.03	0.13	1.31	1.44	0.12	0.45	0.57	—	3,729	3,729	0.19	0.12	1.43	3,770
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.12	0.74	1.92	3.37	0.01	0.02	0.24	0.26	0.02	0.08	0.10	—	617	617	0.03	0.02	0.24	624

### 2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	2.13	1.77	39.6	71.8	0.13	0.33	9.62	9.95	0.32	4.00	4.32	—	15,836	15,836	0.86	0.60	9.37	16,044
2024	2.12	47.2	30.2	56.6	0.07	0.38	2.20	2.58	0.36	0.52	0.89	—	9,771	9,771	0.43	0.25	10.9	9,867
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.65	1.48	21.7	39.8	0.06	0.26	1.70	1.96	0.25	0.41	0.65	—	7,437	7,437	0.35	0.22	0.24	7,510
2024	2.08	47.1	30.4	53.5	0.07	0.38	2.20	2.58	0.36	0.52	0.89	—	9,589	9,589	0.43	0.25	0.28	9,674
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.67	0.59	10.5	18.5	0.03	0.13	1.31	1.44	0.12	0.45	0.57	—	3,729	3,729	0.19	0.12	1.43	3,770
2024	0.38	4.08	5.50	9.86	0.01	0.07	0.40	0.46	0.06	0.09	0.16	—	1,790	1,790	0.08	0.05	0.88	1,807
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.12	0.11	1.92	3.37	0.01	0.02	0.24	0.26	0.02	0.08	0.10	—	617	617	0.03	0.02	0.24	624
2024	0.07	0.74	1.00	1.80	< 0.005	0.01	0.07	0.08	0.01	0.02	0.03	—	296	296	0.01	0.01	0.14	299

### 3. Construction Emissions Details

#### 3.1. Demolition (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	0.51	12.7	18.7	0.03	0.23	—	0.23	0.22	—	0.22	—	3,529	3,529	0.14	0.03	—	3,541



Demolition	—	—	—	—	—	—	0.45	0.45	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	2.09	3.07	0.01	0.04	—	0.04	0.04	—	0.04	—	580	580	0.02	< 0.005	—	582
Demolition	—	—	—	—	—	—	0.07	0.07	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.38	0.56	< 0.005	0.01	—	0.01	0.01	—	0.01	—	96.0	96.0	< 0.005	< 0.005	—	96.4
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.10	1.67	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	264	264	0.01	0.01	1.13	268
Vendor	0.04	0.01	0.38	0.20	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	317	317	0.03	0.05	0.87	332
Hauling	0.03	< 0.005	0.27	0.15	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	214	214	0.02	0.03	0.45	226
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.02	0.02	0.02	0.22	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	40.4	40.4	< 0.005	< 0.005	0.08	41.0
Vendor	0.01	< 0.005	0.06	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	52.1	52.1	< 0.005	0.01	0.06	54.6
Hauling	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	35.2	35.2	< 0.005	0.01	0.03	37.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	6.69	6.69	< 0.005	< 0.005	0.01	6.78
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.63	8.63	< 0.005	< 0.005	0.01	9.03
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.84	5.84	< 0.005	< 0.005	0.01	6.13

### 3.3. Site Preparation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.68	0.68	15.7	30.0	0.05	0.10	—	0.10	0.10	—	0.10	—	5,530	5,530	0.22	0.04	—	5,549
Dust From Material Movement	—	—	—	—	—	—	5.66	5.66	—	2.69	2.69	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.06	1.29	2.46	< 0.005	0.01	—	0.01	0.01	—	0.01	—	455	455	0.02	< 0.005	—	456

Dust From Material Movement:	—	—	—	—	—	—	0.47	0.47	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.24	0.45	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	75.2	75.2	< 0.005	< 0.005	—	75.5
Dust From Material Movement:	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.10	1.67	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	264	264	0.01	0.01	1.13	268
Vendor	0.02	< 0.005	0.19	0.10	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	158	158	0.01	0.02	0.44	166
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	20.2	20.2	< 0.005	< 0.005	0.04	20.5
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.0	13.0	< 0.005	< 0.005	0.02	13.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	3.34	3.34	< 0.005	< 0.005	0.01	3.39
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.16	2.16	< 0.005	< 0.005	< 0.005	2.26

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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### 3.5. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e	
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82	0.82	19.9	36.2	0.06	0.18	—	0.18	0.18	—	0.18	—	6,715	6,715	0.27	0.05	—	6,738	
Dust From Material Movement	—	—	—	—	—	—	2.67	2.67	—	0.98	0.98	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.07	1.64	2.97	0.01	0.02	—	0.02	0.01	—	0.01	—	552	552	0.02	< 0.005	—	554	
Dust From Material Movement	—	—	—	—	—	—	0.22	0.22	—	0.08	0.08	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.30	0.54	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	91.4	91.4	< 0.005	< 0.005	—	91.7	

Dust From Material Movement:	—	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.11	1.85	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	294	294	0.01	0.01	1.26	298
Vendor	0.02	< 0.005	0.19	0.10	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	158	158	0.01	0.02	0.44	166
Hauling	0.37	0.06	3.43	1.91	0.02	0.03	0.20	0.23	0.03	0.07	0.10	—	2,716	2,716	0.31	0.43	5.65	2,857
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	22.4	22.4	< 0.005	< 0.005	0.04	22.8
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.0	13.0	< 0.005	< 0.005	0.02	13.6
Hauling	0.03	< 0.005	0.30	0.16	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	223	223	0.03	0.04	0.20	235
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	3.72	3.72	< 0.005	< 0.005	0.01	3.77
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.16	2.16	< 0.005	< 0.005	< 0.005	2.26
Hauling	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	37.0	37.0	< 0.005	0.01	0.03	38.8

### 3.7. Building Construction (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.87	20.0	31.4	0.05	0.25	—	0.25	0.23	—	0.23	—	5,110	5,110	0.21	0.04	—	5,128
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.87	20.0	31.4	0.05	0.25	—	0.25	0.23	—	0.23	—	5,110	5,110	0.21	0.04	—	5,128
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.20	4.61	7.24	0.01	0.06	—	0.06	0.05	—	0.05	—	1,180	1,180	0.05	0.01	—	1,184
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.84	1.32	< 0.005	0.01	—	0.01	0.01	—	0.01	—	195	195	0.01	< 0.005	—	196
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.69	0.63	0.60	10.6	0.00	0.00	0.09	0.09	0.00	0.00	0.00	—	1,675	1,675	0.07	0.06	7.18	1,700
Vendor	0.09	0.02	0.94	0.51	0.01	0.01	0.04	0.06	0.01	0.02	0.03	—	792	792	0.07	0.12	2.19	831
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.65	0.59	0.70	7.94	0.00	0.00	0.09	0.09	0.00	0.00	0.00	—	1,534	1,534	0.07	0.06	0.19	1,553
Vendor	0.09	0.02	0.98	0.51	0.01	0.01	0.04	0.06	0.01	0.02	0.03	—	793	793	0.07	0.12	0.06	829
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	0.16	1.94	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	359	359	0.02	0.01	0.72	364
Vendor	0.02	< 0.005	0.23	0.12	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	183	183	0.02	0.03	0.22	192
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.03	0.35	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	59.5	59.5	< 0.005	< 0.005	0.12	60.3
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	30.3	30.3	< 0.005	< 0.005	0.04	31.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.9. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.87	20.0	31.4	0.05	0.25	—	0.25	0.23	—	0.23	—	5,110	5,110	0.21	0.04	—	5,127
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Off-Road Equipment	0.91	0.87	20.0	31.4	0.05	0.25	—	0.25	0.23	—	0.23	—	5,110	5,110	0.21	0.04	—	5,127
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.18	4.14	6.51	0.01	0.05	—	0.05	0.05	—	0.05	—	1,060	1,060	0.04	0.01	—	1,064
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.76	1.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	175	175	0.01	< 0.005	—	176
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.65	0.60	0.55	9.64	0.00	0.00	0.09	0.09	0.00	0.00	0.00	—	1,641	1,641	0.07	0.06	6.56	1,666
Vendor	0.08	0.02	0.90	0.48	0.01	0.01	0.04	0.06	0.01	0.02	0.03	—	784	784	0.06	0.12	2.19	822
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.62	0.56	0.65	7.29	0.00	0.00	0.09	0.09	0.00	0.00	0.00	—	1,504	1,504	0.07	0.06	0.17	1,523
Vendor	0.08	0.02	0.94	0.49	0.01	0.01	0.04	0.06	0.01	0.02	0.03	—	784	784	0.06	0.12	0.06	821
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.14	1.59	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	316	316	0.01	0.01	0.59	321
Vendor	0.02	< 0.005	0.20	0.10	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	163	163	0.01	0.02	0.20	170



Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.29	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	52.4	52.4	< 0.005	< 0.005	0.10	53.1	
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	26.9	26.9	< 0.005	< 0.005	0.03	28.2	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	

### 3.11. Paving (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	7.21	10.6	0.01	0.09	—	0.09	0.08	—	0.08	—	1,512	1,512	0.06	0.01	—	1,517
Paving	—	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	7.21	10.6	0.01	0.09	—	0.09	0.08	—	0.08	—	1,512	1,512	0.06	0.01	—	1,517
Paving	—	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.89	1.31	< 0.005	0.01	—	0.01	0.01	—	0.01	—	186	186	0.01	< 0.005	—	187
Paving	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.16	0.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	30.9	30.9	< 0.005	< 0.005	—	31.0	
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.09	0.08	0.07	1.27	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	216	216	0.01	0.01	0.86	219	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.08	0.07	0.09	0.96	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	198	198	0.01	0.01	0.02	200	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.01	0.01	0.01	0.12	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	24.7	24.7	< 0.005	< 0.005	0.05	25.1	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	4.10	4.10	< 0.005	< 0.005	0.01	4.15	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	

## 3.13. Architectural Coating (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	1.43	1.28	< 0.005	0.04	—	0.04	0.04	—	0.04	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	44.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	1.43	1.28	< 0.005	0.04	—	0.04	0.04	—	0.04	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	44.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.12	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.6	14.6	< 0.005	< 0.005	—	14.7
Architectural Coatings	—	3.69	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.42	2.42	< 0.005	< 0.005	—	2.43
Architectural Coatings	—	0.67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.11	1.95	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	331	331	0.01	0.01	1.32	336
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.11	0.13	1.47	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	303	303	0.01	0.01	0.03	307
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	25.3	25.3	< 0.005	< 0.005	0.05	25.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	4.19	4.19	< 0.005	< 0.005	0.01	4.25
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

## 4. Operations Emissions Details

### 4.10. Soil Carbon Accumulation By Vegetation Type

#### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 5. Activity Data

### 5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	5/2/2023	7/24/2023	5.00	60.0	—
Site Preparation	Site Preparation	7/25/2023	9/4/2023	5.00	30.0	—
Grading	Grading	7/25/2023	9/4/2023	5.00	30.0	—
Building Construction	Building Construction	9/5/2023	4/15/2024	5.00	160	—
Paving	Paving	2/13/2024	4/15/2024	5.00	45.0	—
Architectural Coating	Architectural Coating	3/5/2024	4/15/2024	5.00	30.0	—

### 5.2. Off-Road Equipment

#### 5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Interim	2.00	8.00	367	0.40

Demolition	Excavators	Diesel	Tier 4 Interim	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Interim	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Interim	3.00	8.00	367	0.40
Grading	Graders	Diesel	Tier 4 Interim	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Interim	2.00	8.00	36.0	0.38
Grading	Scrapers	Diesel	Tier 4 Interim	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 4 Interim	5.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Tier 4 Interim	2.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Interim	2.00	8.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Interim	2.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Tier 4 Interim	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Interim	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Interim	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Interim	1.00	8.00	37.0	0.48
Site Preparation	Crawler Tractors	Diesel	Tier 4 Interim	4.00	8.00	87.0	0.43
Grading	Crawler Tractors	Diesel	Tier 4 Interim	2.00	8.00	87.0	0.43
Building Construction	Crawler Tractors	Diesel	Tier 4 Interim	5.00	8.00	87.0	0.43
Demolition	Generator Sets	Diesel	Tier 4 Interim	1.00	8.00	14.0	0.74

## 5.3. Construction Vehicles

### 5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	18.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	10.0	10.2	HHDT,MHDT



Demolition	Hauling	3.00	20.0	HHDT
Demolition	Onsite truck	0.00	0.00	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	18.0	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	5.00	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	0.00	0.00	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	5.00	10.2	HHDT,MHDT
Grading	Hauling	38.0	20.0	HHDT
Grading	Onsite truck	0.00	0.00	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	114	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	25.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	0.00	0.00	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	0.00	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	0.00	0.00	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	23.0	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	0.00	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	0.00	0.00	HHDT

## 5.4. Vehicles

### 5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

## 5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	415,727	138,576	13,629

## 5.6. Dust Mitigation

### 5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	1,922	—
Site Preparation	0.00	0.00	105	0.00	—
Grading	0.00	9,000	120	0.00	—
Paving	0.00	0.00	0.00	0.00	5.21

### 5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%
Water Demolished Area	2	36%	36%

## 5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
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Unrefrigerated Warehouse-No Rail	0.00	0%
Refrigerated Warehouse-No Rail	0.00	0%
Parking Lot	1.53	100%
Other Asphalt Surfaces	3.68	100%

### 5.8. Construction Electricity Consumption and Emissions Factors

#### kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	532	0.03	< 0.005
2024	0.00	532	0.03	< 0.005

### 5.18. Vegetation

#### 5.18.1. Land Use Change

##### 5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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#### 5.18.1. Biomass Cover Type

##### 5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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#### 5.18.2. Sequestration

##### 5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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## 6. Climate Risk Detailed Report

### 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.1	annual days of extreme heat
Extreme Precipitation	5.30	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about  $\frac{3}{4}$  an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

### 6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A

Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

### 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

### 6.4. Climate Risk Reduction Measures

## 7. Health and Equity Details

### 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
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Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	95.7
AQ-DPM	96.6
Drinking Water	93.3
Lead Risk Housing	8.61
Pesticides	0.00
Toxic Releases	78.9
Traffic	89.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	30.9
Haz Waste Facilities/Generators	78.8
Impaired Water Bodies	0.00
Solid Waste	70.4
Sensitive Population	—
Asthma	47.3
Cardio-vascular	67.3
Low Birth Weights	57.1
Socioeconomic Factor Indicators	—
Education	40.5
Housing	32.3
Linguistic	18.1
Poverty	23.9
Unemployment	53.9

## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	76.78686
Employed	63.51854228
Education	—
Bachelor's or higher	44.59129988
High school enrollment	3.977928911
Preschool enrollment	15.60374695
Transportation	—
Auto Access	88.68215065
Active commuting	10.11163865
Social	—
2-parent households	11.86962659
Voting	50.91749006
Neighborhood	—
Alcohol availability	69.3314513
Park access	61.63223406
Retail density	69.31861927
Supermarket access	2.399589375
Tree canopy	29.69331451
Housing	—
Homeownership	78.81432054
Housing habitability	80.20017965
Low-inc homeowner severe housing cost burden	88.74631079
Low-inc renter severe housing cost burden	37.86731682
Uncrowded housing	60.77248813
Health Outcomes	—

Insured adults	67.2783267
Arthritis	74.6
Asthma ER Admissions	54.3
High Blood Pressure	79.9
Cancer (excluding skin)	68.9
Asthma	49.0
Coronary Heart Disease	85.5
Chronic Obstructive Pulmonary Disease	74.0
Diagnosed Diabetes	64.3
Life Expectancy at Birth	52.5
Cognitively Disabled	87.2
Physically Disabled	77.4
Heart Attack ER Admissions	10.4
Mental Health Not Good	50.5
Chronic Kidney Disease	79.8
Obesity	43.5
Pedestrian Injuries	99.0
Physical Health Not Good	58.2
Stroke	80.6
Health Risk Behaviors	—
Binge Drinking	19.3
Current Smoker	53.5
No Leisure Time for Physical Activity	61.3
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	32.5



Elderly	84.2
English Speaking	91.4
Foreign-born	35.9
Outdoor Workers	45.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	76.5
Traffic Density	89.2
Traffic Access	46.3
Other Indices	—
Hardship	44.0
Other Decision Support	—
2016 Voting	74.5

### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	65.0
Healthy Places Index Score for Project Location (b)	42.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

### 7.4. Health & Equity Measures

No Health & Equity Measures selected.

### 7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

## 8. User Changes to Default Data

Screen	Justification
Land Use	Total Project Site is 13.08 acres
Construction: Construction Phases	Construction anticipated to end in April 2024
Construction: Off-Road Equipment	Construction equipment based on equipment needed for other industrial projects within the area
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Demolition, Site Preparation, Grading, and Building Construction
Construction: Architectural Coatings	Rule 1113

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**APPENDIX 2.2:**  
**EMFAC EMISSIONS SUMMARY**

Emissions	Phase	Lb/Day	# Days	Emissions	Avg/Lb Day	Avg/Hourly
On-Site Exhaust PM-10	Demolition	0.23	60	13.8	0.23	0.02875
	Site Preparation	0.10	30	3	0.1	0.0125
	Grading	0.18	30	5.4	0.18	0.0225
	Building Construction	0.25	160	40	0.25	0.03125
	Paving	0.09	45	4.05	0.09	0.01125
	Architectural Coatings	0.04	30	1.2	0.04	0.005
		0.89	250	67.45	0.2698	0.033725
Off-Site Exhaust PM-10	Demolition	1.00E-02	60	0.6	0.01	0.00125
	Site Preparation	5.00E-03	30	0.15	0.005	0.000625
	Grading	3.50E-02	30	1.05	0.035	0.004375
	Building Construction	1.00E-02	160	1.6	0.01	0.00125
	Paving	0.00E+00	45	0	0	0
	Architectural Coatings	0.00E+00	30	0	0	0
		6.00E-02	250	3.4	0.0136	0.0017

Phase	Start Date	End Date	No. Days
Demolition	5/2/2023	7/24/2023	60
Site Preparation	7/25/2023	9/4/2023	30
Grading	7/25/2023	9/4/2023	30
Building Construction	9/5/2023	4/15/2024	160
Paving	2/13/2024	4/15/2024	45
Arch Coatings	3/5/2024	4/15/2024	30
<b>Total Days of Construction</b>			<b>250</b>

**AVERAGE EMISSION FACTOR  
SAN BERNARDINO COUNTY 2024**

Speed	LHD1	LHD2	MHD	HHD
0	0.316954	0.498613	0.051812	0.01310
5	0.039143	0.05572	0.030547	0.01151
25	0.01796	0.026556	0.00817	0.00576

Speed	Weighted Average Emissions
<b>0</b>	<b>0.08568</b>
<b>5</b>	<b>0.02107</b>
<b>25</b>	<b>0.00889</b>

Truck Emission Rates						
Source	Trucks Per Day	VMT <sup>a</sup> (miles/day)	Truck Emission Rate <sup>b</sup> (grams/mile)	Truck Emission Rate <sup>b</sup> (grams/idle-hour)	Daily Truck Emissions <sup>c</sup> (grams/day)	Modeled Emission Rates (g/second)
On-Site Idling	84			0.0857	3.90	4.517E-05
On-Site Travel	168	41.19	0.0211		1.28	1.482E-05
Off-Site Travel - E. Airport Dr./S. Etiwanda Ave. 100% Inbound/Outbound	168	193.05	0.0089		2.10	2.434E-05

<sup>a</sup> Vehicle miles traveled are for modeled truck route only.

<sup>b</sup> Emission rates determined using EMFAC 2021. Idle emission rates are expressed in grams per idle hour rather than grams per mile.

<sup>c</sup> This column includes the total truck travel and truck idle emissions. For idle emissions this column includes emissions based on the assumption that each truck idles for 15 minutes.

calendar_y	season_m	sub_area	vehicle_class	fuel	temperatu	relative_hu	process	speed_tim	pollutant	emission_rate
2024	Annual	San Berna	HHDT	Dsl	60	70	RUNEX	5	PM10	0.01351
2024	Annual	San Berna	HHDT	Dsl	60	70	RUNEX	25	PM10	0.006762
2024	Annual	San Berna	LHDT1	Dsl	60	70	RUNEX	5	PM10	0.098223
2024	Annual	San Berna	LHDT1	Dsl	60	70	RUNEX	25	PM10	0.045069
2024	Annual	San Berna	LHDT2	Dsl	60	70	RUNEX	5	PM10	0.089018
2024	Annual	San Berna	LHDT2	Dsl	60	70	RUNEX	25	PM10	0.042425
2024	Annual	San Berna	MHDT	Dsl	60	70	RUNEX	5	PM10	0.033532
2024	Annual	San Berna	MHDT	Dsl	60	70	RUNEX	25	PM10	0.008968



Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: Sub-Area

Region: San Bernardino (SC)

Calendar Year: 2024

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar	Vehicle C	Model Year	Speed	Fuel	Population
San Berna	2024	HHDT	Aggregate	Aggregate	Gasoline	5.56599
San Berna	2024	HHDT	Aggregate	Aggregate	Diesel	14232
San Berna	2024	HHDT	Aggregate	Aggregate	Natural Gas	2469.47
San Berna	2024	LHDT1	Aggregate	Aggregate	Gasoline	17179.5
San Berna	2024	LHDT1	Aggregate	Aggregate	Diesel	11382.1
San Berna	2024	LHDT2	Aggregate	Aggregate	Gasoline	2883.7
San Berna	2024	LHDT2	Aggregate	Aggregate	Diesel	4825.53
San Berna	2024	MHDT	Aggregate	Aggregate	Gasoline	1460.6
San Berna	2024	MHDT	Aggregate	Aggregate	Diesel	14946.5
San Berna	2024	MHDT	Aggregate	Aggregate	Natural Gas	195.676

HHDT% GAS/NG 0.14814

HHDT% DSL 0.85186

LHDT1% GAS 0.60149

LHDT1% DSL 0.39851

LHDT2% GAS 0.37406

LHDT2% DSL 0.62594

MHDT% GAS 0.08902

MHDT% DSL 0.91098

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**APPENDIX 2.3:**  
**AERMOD MODEL INPUT/OUTPUT**

```

**
*****
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.2.1
** Lakes Environmental Software Inc.
** Date: 8/23/2022
** File: C:\Users\Michael Tirohn\Desktop\HRAs\14539 IE Distribution\14539 Ops\14539 Ops.ADI
**

```

```

*****
**
**
*****
** AERMOD Control Pathway
*****
**
**

```

```

CO STARTING
TITLEONE C:\Users\Michael Tirohn\Desktop\HRAs\14539 IE Distribution\14539 Ops
MODELOPT DFAULT CONC
AVERTIME ANNUAL
URBANOPT 2035210 San_Bernadino_County
POLLUTID DPM
RUNORNOT RUN
ERRORFIL "14539 Ops.err"

```

```

CO FINISHED
**
*****
** AERMOD Source Pathway
*****
**
**

```

```

SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** -----

```

```

** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC Idling
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 0.00004517
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 2
** 450584.276, 3769293.332, 298.63, 3.49, 4.00
** 450819.830, 3769300.271, 298.67, 3.49, 4.00
** -----

```

LOCATION	VOLUME	X Coord.	Y Coord.	Height
L0000338	450588.570	3769293.458	298.57	
L0000339	450597.156	3769293.711	298.58	
L0000340	450605.742	3769293.964	298.58	
L0000341	450614.328	3769294.217	298.60	
L0000342	450622.915	3769294.470	298.64	
L0000343	450631.501	3769294.723	298.67	
L0000344	450640.087	3769294.976	298.70	
L0000345	450648.673	3769295.229	298.70	
L0000346	450657.260	3769295.482	298.70	
L0000347	450665.846	3769295.735	298.70	
L0000348	450674.432	3769295.988	298.70	
L0000349	450683.019	3769296.241	298.70	
L0000350	450691.605	3769296.494	298.70	
L0000351	450700.191	3769296.746	298.70	
L0000352	450708.777	3769296.999	298.67	
L0000353	450717.364	3769297.252	298.65	
L0000354	450725.950	3769297.505	298.62	

LOCATION	VOLUME			
L0000355	450734.536	3769297.758	298.62	
L0000356	450743.122	3769298.011	298.62	
L0000357	450751.709	3769298.264	298.62	
L0000358	450760.295	3769298.517	298.62	
L0000359	450768.881	3769298.770	298.60	
L0000360	450777.468	3769299.023	298.59	
L0000361	450786.054	3769299.276	298.57	
L0000362	450794.640	3769299.529	298.57	
L0000363	450803.226	3769299.782	298.57	
L0000364	450811.813	3769300.035	298.58	

\*\* End of LINE VOLUME Source ID = SLINE1

\*\*

\*\* Line Source Represented by Adjacent Volume Sources

\*\* LINE VOLUME Source ID = SLINE2

\*\* DESCRSRC Onsite

\*\* PREFIX

\*\* Length of Side = 8.59

\*\* Configuration = Adjacent

\*\* Emission Rate = 0.00001482

\*\* Vertical Dimension = 6.99

\*\* SZINIT = 3.25

\*\* Nodes = 8

\*\* 450532.053, 3769244.030, 298.41, 3.49, 4.00

\*\* 450532.053, 3769261.560, 298.60, 3.49, 4.00

\*\* 450581.355, 3769261.925, 298.54, 3.49, 4.00

\*\* 450593.772, 3769274.707, 298.44, 3.49, 4.00

\*\* 450781.484, 3769278.359, 298.14, 3.49, 4.00

\*\* 450819.830, 3769274.342, 298.10, 3.49, 4.00

\*\* 450875.340, 3769273.976, 298.68, 3.49, 4.00

\*\* 450876.071, 3769245.856, 298.09, 3.49, 4.00

\*\*

LOCATION	VOLUME			
L0000365	450532.053	3769248.325	298.42	
L0000366	450532.053	3769256.915	298.51	
L0000367	450535.998	3769261.589	298.55	
L0000368	450544.588	3769261.652	298.55	
L0000369	450553.178	3769261.716	298.55	
L0000370	450561.767	3769261.780	298.55	
L0000371	450570.357	3769261.843	298.55	
L0000372	450578.947	3769261.907	298.55	
L0000373	450585.662	3769266.359	298.50	
L0000374	450591.648	3769272.520	298.44	
L0000375	450599.313	3769274.815	298.41	
L0000376	450607.901	3769274.982	298.41	
L0000377	450616.489	3769275.149	298.48	
L0000378	450625.078	3769275.316	298.56	
L0000379	450633.666	3769275.483	298.65	
L0000380	450642.254	3769275.650	298.70	
L0000381	450650.843	3769275.817	298.70	
L0000382	450659.431	3769275.984	298.70	
L0000383	450668.020	3769276.151	298.70	
L0000384	450676.608	3769276.318	298.70	
L0000385	450685.196	3769276.485	298.70	
L0000386	450693.785	3769276.652	298.70	
L0000387	450702.373	3769276.820	298.68	
L0000388	450710.961	3769276.987	298.59	
L0000389	450719.550	3769277.154	298.51	
L0000390	450728.138	3769277.321	298.42	
L0000391	450736.727	3769277.488	298.41	
L0000392	450745.315	3769277.655	298.41	
L0000393	450753.903	3769277.822	298.41	
L0000394	450762.492	3769277.989	298.39	
L0000395	450771.080	3769278.156	298.31	
L0000396	450779.668	3769278.323	298.23	
L0000397	450788.221	3769277.653	298.13	
L0000398	450796.764	3769276.758	298.10	
L0000399	450805.308	3769275.863	298.10	

LOCATION	VOLUME			
L0000400	450813.851	3769274.968	298.11	
L0000401	450822.408	3769274.325	298.14	
L0000402	450830.998	3769274.268	298.22	
L0000403	450839.588	3769274.212	298.29	
L0000404	450848.178	3769274.155	298.37	
L0000405	450856.767	3769274.099	298.44	
L0000406	450865.357	3769274.042	298.52	
L0000407	450873.947	3769273.985	298.60	
L0000408	450875.527	3769266.782	298.48	
L0000409	450875.750	3769258.195	298.32	
L0000410	450875.973	3769249.608	298.16	

\*\* End of LINE VOLUME Source ID = SLINE2

\*\* -----

\*\* Line Source Represented by Adjacent Volume Sources

\*\* LINE VOLUME Source ID = SLINE3

\*\* DESCRSRC Offsite

\*\* PREFIX

\*\* Length of Side = 14.00

\*\* Configuration = Adjacent

\*\* Emission Rate = 0.00002434

\*\* Vertical Dimension = 6.99

\*\* SZINIT = 3.25

\*\* Nodes = 14

\*\* 450531.488, 3769231.780, 298.42, 3.49, 6.51

\*\* 451458.160, 3769224.475, 296.68, 3.49, 6.51

\*\* 451477.884, 3769223.014, 297.16, 3.49, 6.51

\*\* 451508.566, 3769211.326, 297.73, 3.49, 6.51

\*\* 451579.062, 3769183.931, 297.18, 3.49, 6.51

\*\* 451600.612, 3769178.452, 297.61, 3.49, 6.51

\*\* 451630.198, 3769176.626, 297.58, 3.49, 6.51

\*\* 451633.851, 3769205.116, 298.46, 3.49, 6.51

\*\* 451632.755, 3769377.520, 307.01, 3.49, 6.51

\*\* 451633.851, 3769443.268, 304.95, 3.49, 6.51

\*\* 451634.581, 3769487.099, 305.91, 3.49, 6.51

\*\* 451637.869, 3769611.288, 307.59, 3.49, 6.51

\*\* 451637.869, 3769784.058, 305.17, 3.49, 6.51

\*\* 451642.335, 3769918.705, 307.93, 3.49, 6.51

\*\* -----

L0000411	450538.488	3769231.725	298.40	
L0000412	450552.488	3769231.615	298.43	
L0000413	450566.487	3769231.505	298.57	
L0000414	450580.487	3769231.394	298.70	
L0000415	450594.486	3769231.284	298.70	
L0000416	450608.486	3769231.173	298.70	
L0000417	450622.485	3769231.063	298.70	
L0000418	450636.485	3769230.953	298.70	
L0000419	450650.485	3769230.842	298.70	
L0000420	450664.484	3769230.732	298.70	
L0000421	450678.484	3769230.622	298.61	
L0000422	450692.483	3769230.511	298.47	
L0000423	450706.483	3769230.401	298.40	
L0000424	450720.482	3769230.291	298.40	
L0000425	450734.482	3769230.180	298.40	
L0000426	450748.481	3769230.070	298.40	
L0000427	450762.481	3769229.959	298.40	
L0000428	450776.481	3769229.849	298.40	
L0000429	450790.480	3769229.739	298.40	
L0000430	450804.480	3769229.628	298.40	
L0000431	450818.479	3769229.518	298.40	
L0000432	450832.479	3769229.408	298.34	
L0000433	450846.478	3769229.297	298.28	
L0000434	450860.478	3769229.187	298.08	
L0000435	450874.478	3769229.077	297.83	
L0000436	450888.477	3769228.966	297.74	
L0000437	450902.477	3769228.856	297.74	
L0000438	450916.476	3769228.745	297.70	

LOCATION L0000439	VOLUME	450930.476	3769228.635	297.61
LOCATION L0000440	VOLUME	450944.475	3769228.525	297.50
LOCATION L0000441	VOLUME	450958.475	3769228.414	297.36
LOCATION L0000442	VOLUME	450972.475	3769228.304	297.23
LOCATION L0000443	VOLUME	450986.474	3769228.194	297.17
LOCATION L0000444	VOLUME	451000.474	3769228.083	297.11
LOCATION L0000445	VOLUME	451014.473	3769227.973	297.05
LOCATION L0000446	VOLUME	451028.473	3769227.863	297.00
LOCATION L0000447	VOLUME	451042.472	3769227.752	296.91
LOCATION L0000448	VOLUME	451056.472	3769227.642	296.82
LOCATION L0000449	VOLUME	451070.471	3769227.531	296.76
LOCATION L0000450	VOLUME	451084.471	3769227.421	296.70
LOCATION L0000451	VOLUME	451098.471	3769227.311	296.68
LOCATION L0000452	VOLUME	451112.470	3769227.200	296.68
LOCATION L0000453	VOLUME	451126.470	3769227.090	296.63
LOCATION L0000454	VOLUME	451140.469	3769226.980	296.54
LOCATION L0000455	VOLUME	451154.469	3769226.869	296.46
LOCATION L0000456	VOLUME	451168.468	3769226.759	296.41
LOCATION L0000457	VOLUME	451182.468	3769226.649	296.37
LOCATION L0000458	VOLUME	451196.468	3769226.538	296.37
LOCATION L0000459	VOLUME	451210.467	3769226.428	296.36
LOCATION L0000460	VOLUME	451224.467	3769226.317	296.32
LOCATION L0000461	VOLUME	451238.466	3769226.207	296.27
LOCATION L0000462	VOLUME	451252.466	3769226.097	296.18
LOCATION L0000463	VOLUME	451266.465	3769225.986	296.08
LOCATION L0000464	VOLUME	451280.465	3769225.876	295.95
LOCATION L0000465	VOLUME	451294.465	3769225.766	295.80
LOCATION L0000466	VOLUME	451308.464	3769225.655	295.66
LOCATION L0000467	VOLUME	451322.464	3769225.545	295.52
LOCATION L0000468	VOLUME	451336.463	3769225.435	295.51
LOCATION L0000469	VOLUME	451350.463	3769225.324	295.66
LOCATION L0000470	VOLUME	451364.462	3769225.214	295.85
LOCATION L0000471	VOLUME	451378.462	3769225.103	296.13
LOCATION L0000472	VOLUME	451392.461	3769224.993	296.37
LOCATION L0000473	VOLUME	451406.461	3769224.883	296.48
LOCATION L0000474	VOLUME	451420.461	3769224.772	296.58
LOCATION L0000475	VOLUME	451434.460	3769224.662	296.65
LOCATION L0000476	VOLUME	451448.460	3769224.552	296.73
LOCATION L0000477	VOLUME	451462.448	3769224.158	296.96
LOCATION L0000478	VOLUME	451476.409	3769223.123	297.19
LOCATION L0000479	VOLUME	451489.585	3769218.556	297.41
LOCATION L0000480	VOLUME	451502.668	3769213.573	297.56
LOCATION L0000481	VOLUME	451515.732	3769208.541	297.47
LOCATION L0000482	VOLUME	451528.782	3769203.470	297.27
LOCATION L0000483	VOLUME	451541.831	3769198.399	297.11
LOCATION L0000484	VOLUME	451554.880	3769193.328	297.17
LOCATION L0000485	VOLUME	451567.930	3769188.257	297.23
LOCATION L0000486	VOLUME	451581.055	3769183.424	297.30
LOCATION L0000487	VOLUME	451594.624	3769179.975	297.39
LOCATION L0000488	VOLUME	451608.418	3769177.970	297.39
LOCATION L0000489	VOLUME	451622.392	3769177.108	297.39
LOCATION L0000490	VOLUME	451630.984	3769182.754	297.63
LOCATION L0000491	VOLUME	451632.764	3769196.640	298.07
LOCATION L0000492	VOLUME	451633.816	3769210.571	298.48
LOCATION L0000493	VOLUME	451633.727	3769224.571	298.95
LOCATION L0000494	VOLUME	451633.638	3769238.570	299.44
LOCATION L0000495	VOLUME	451633.549	3769252.570	299.94
LOCATION L0000496	VOLUME	451633.460	3769266.570	300.44
LOCATION L0000497	VOLUME	451633.371	3769280.570	301.02
LOCATION L0000498	VOLUME	451633.282	3769294.569	301.79
LOCATION L0000499	VOLUME	451633.193	3769308.569	302.60
LOCATION L0000500	VOLUME	451633.104	3769322.569	303.59
LOCATION L0000501	VOLUME	451633.015	3769336.568	304.59
LOCATION L0000502	VOLUME	451632.926	3769350.568	305.92
LOCATION L0000503	VOLUME	451632.837	3769364.568	307.24
LOCATION L0000504	VOLUME	451632.773	3769378.567	307.33

LOCATION	VOLUME				
LOCATION L0000505	VOLUME	451633.006	3769392.566	307.21	
LOCATION L0000506	VOLUME	451633.239	3769406.564	306.54	
LOCATION L0000507	VOLUME	451633.472	3769420.562	305.68	
LOCATION L0000508	VOLUME	451633.706	3769434.560	305.17	
LOCATION L0000509	VOLUME	451633.939	3769448.558	304.90	
LOCATION L0000510	VOLUME	451634.172	3769462.556	304.97	
LOCATION L0000511	VOLUME	451634.406	3769476.554	305.44	
LOCATION L0000512	VOLUME	451634.673	3769490.551	305.91	
LOCATION L0000513	VOLUME	451635.043	3769504.546	306.38	
LOCATION L0000514	VOLUME	451635.414	3769518.541	306.72	
LOCATION L0000515	VOLUME	451635.784	3769532.536	306.47	
LOCATION L0000516	VOLUME	451636.155	3769546.532	306.23	
LOCATION L0000517	VOLUME	451636.525	3769560.527	306.34	
LOCATION L0000518	VOLUME	451636.896	3769574.522	306.46	
LOCATION L0000519	VOLUME	451637.266	3769588.517	306.97	
LOCATION L0000520	VOLUME	451637.636	3769602.512	307.53	
LOCATION L0000521	VOLUME	451637.869	3769616.509	307.71	
LOCATION L0000522	VOLUME	451637.869	3769630.509	307.75	
LOCATION L0000523	VOLUME	451637.869	3769644.509	307.23	
LOCATION L0000524	VOLUME	451637.869	3769658.509	306.32	
LOCATION L0000525	VOLUME	451637.869	3769672.509	305.61	
LOCATION L0000526	VOLUME	451637.869	3769686.509	305.13	
LOCATION L0000527	VOLUME	451637.869	3769700.509	304.74	
LOCATION L0000528	VOLUME	451637.869	3769714.509	304.53	
LOCATION L0000529	VOLUME	451637.869	3769728.509	304.39	
LOCATION L0000530	VOLUME	451637.869	3769742.509	304.60	
LOCATION L0000531	VOLUME	451637.869	3769756.509	304.80	
LOCATION L0000532	VOLUME	451637.869	3769770.509	305.06	
LOCATION L0000533	VOLUME	451637.884	3769784.509	305.33	
LOCATION L0000534	VOLUME	451638.348	3769798.501	306.17	
LOCATION L0000535	VOLUME	451638.812	3769812.493	307.08	
LOCATION L0000536	VOLUME	451639.276	3769826.486	307.41	
LOCATION L0000537	VOLUME	451639.740	3769840.478	307.50	
LOCATION L0000538	VOLUME	451640.205	3769854.470	307.84	
LOCATION L0000539	VOLUME	451640.669	3769868.462	308.36	
LOCATION L0000540	VOLUME	451641.133	3769882.455	308.51	
LOCATION L0000541	VOLUME	451641.597	3769896.447	308.19	
LOCATION L0000542	VOLUME	451642.061	3769910.439	307.84	

\*\* End of LINE VOLUME Source ID = SLINE3

\*\* Source Parameters \*\*

\*\* LINE VOLUME Source ID = SLINE1

SRCPARAM	VOLUME				
SRCPARAM L0000338	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000339	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000340	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000341	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000342	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000343	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000344	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000345	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000346	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000347	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000348	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000349	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000350	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000351	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000352	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000353	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000354	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000355	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000356	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000357	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000358	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000359	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000360	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000361	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000362	0.000001673	3.49	4.00	3.25	







SRCPARAM L0000491	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000492	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000493	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000494	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000495	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000496	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000497	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000498	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000499	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000500	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000501	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000502	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000503	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000504	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000505	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000506	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000507	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000508	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000509	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000510	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000511	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000512	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000513	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000514	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000515	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000516	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000517	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000518	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000519	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000520	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000521	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000522	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000523	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000524	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000525	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000526	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000527	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000528	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000529	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000530	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000531	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000532	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000533	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000534	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000535	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000536	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000537	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000538	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000539	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000540	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000541	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000542	0.0000001844	3.49	6.51	3.25

\*\* -----

URBANSRC ALL  
SRCGROUP ALL

SO FINISHED

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\*\* AERMOD Receptor Pathway

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\*\*

RE STARTING

INCLUDED "14539 Ops.rou"

RE FINISHED

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```
*****
** AERMOD Meteorology Pathway
*****
**
**
ME STARTING
  SURFFILE KONT_V9_ADJU\KONT_v9.SFC
  PROFFILE KONT_V9_ADJU\KONT_v9.PFL
  SURFDATA 3102 2012
  UAIRDATA 3190 2012
  PROFBASE 289.0 METERS
ME FINISHED
**
*****
** AERMOD Output Pathway
*****
**
**
OU STARTING
** Auto-Generated Plotfiles
  PLOTFILE ANNUAL ALL "14539 Ops.AD\AN00GALL.PLT" 31
  SUMMFILE "14539 Ops.sum"
OU FINISHED
**
*****
** Project Parameters
*****
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    North American Datum 1983
** DTMRGN   CONUS
** UNITS    m
** ZONE     11
** ZONEINX  0
**
```

```

** Lakes Environmental AERMOD MPI
**
*****
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.2.1
** Lakes Environmental Software Inc.
** Date: 8/23/2022
** File: C:\Users\Michael Tirohn\Desktop\HRAs\14539 IE Distribution\14539 Ops\14539 Ops.ADI
**

```

```

*****
**
**
*****
** AERMOD Control Pathway
*****
**
**

```

```

CO STARTING
TITLEONE C:\Users\Michael Tirohn\Desktop\HRAs\14539 IE Distribution\14539 Ops
MODELOPT DFAULT CONC
AVERTIME ANNUAL
URBANOPT 2035210 San_Bernadino_County
POLLUTID DPM
RUNORNOT RUN
ERRORFIL "14539 Ops.err"

```

```

CO FINISHED
**
*****

```

```

** AERMOD Source Pathway
*****
**
**

```

```

SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** -----

```

```

** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC Idling
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 0.00004517
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 2
** 450584.276, 3769293.332, 298.63, 3.49, 4.00
** 450819.830, 3769300.271, 298.67, 3.49, 4.00
** -----

```

LOCATION	VOLUME	X Coord.	Y Coord.	Height
L0000338	450588.570	3769293.458	298.57	
L0000339	450597.156	3769293.711	298.58	
L0000340	450605.742	3769293.964	298.58	
L0000341	450614.328	3769294.217	298.60	
L0000342	450622.915	3769294.470	298.64	
L0000343	450631.501	3769294.723	298.67	
L0000344	450640.087	3769294.976	298.70	
L0000345	450648.673	3769295.229	298.70	
L0000346	450657.260	3769295.482	298.70	
L0000347	450665.846	3769295.735	298.70	
L0000348	450674.432	3769295.988	298.70	
L0000349	450683.019	3769296.241	298.70	
L0000350	450691.605	3769296.494	298.70	
L0000351	450700.191	3769296.746	298.70	
L0000352	450708.777	3769296.999	298.67	
L0000353	450717.364	3769297.252	298.65	

LOCATION	VOLUME				
L0000354	450725.950	3769297.505	298.62		
L0000355	450734.536	3769297.758	298.62		
L0000356	450743.122	3769298.011	298.62		
L0000357	450751.709	3769298.264	298.62		
L0000358	450760.295	3769298.517	298.62		
L0000359	450768.881	3769298.770	298.60		
L0000360	450777.468	3769299.023	298.59		
L0000361	450786.054	3769299.276	298.57		
L0000362	450794.640	3769299.529	298.57		
L0000363	450803.226	3769299.782	298.57		
L0000364	450811.813	3769300.035	298.58		

\*\* End of LINE VOLUME Source ID = SLINE1

\*\* -----

\*\* Line Source Represented by Adjacent Volume Sources

\*\* LINE VOLUME Source ID = SLINE2

\*\* DESCRSRC Onsite

\*\* PREFIX

\*\* Length of Side = 8.59

\*\* Configuration = Adjacent

\*\* Emission Rate = 0.00001482

\*\* Vertical Dimension = 6.99

\*\* SZINIT = 3.25

\*\* Nodes = 8

\*\* 450532.053, 3769244.030, 298.41, 3.49, 4.00

\*\* 450532.053, 3769261.560, 298.60, 3.49, 4.00

\*\* 450581.355, 3769261.925, 298.54, 3.49, 4.00

\*\* 450593.772, 3769274.707, 298.44, 3.49, 4.00

\*\* 450781.484, 3769278.359, 298.14, 3.49, 4.00

\*\* 450819.830, 3769274.342, 298.10, 3.49, 4.00

\*\* 450875.340, 3769273.976, 298.68, 3.49, 4.00

\*\* 450876.071, 3769245.856, 298.09, 3.49, 4.00

\*\* -----

LOCATION	VOLUME				
L0000365	450532.053	3769248.325	298.42		
L0000366	450532.053	3769256.915	298.51		
L0000367	450535.998	3769261.589	298.55		
L0000368	450544.588	3769261.652	298.55		
L0000369	450553.178	3769261.716	298.55		
L0000370	450561.767	3769261.780	298.55		
L0000371	450570.357	3769261.843	298.55		
L0000372	450578.947	3769261.907	298.55		
L0000373	450585.662	3769266.359	298.50		
L0000374	450591.648	3769272.520	298.44		
L0000375	450599.313	3769274.815	298.41		
L0000376	450607.901	3769274.982	298.41		
L0000377	450616.489	3769275.149	298.48		
L0000378	450625.078	3769275.316	298.56		
L0000379	450633.666	3769275.483	298.65		
L0000380	450642.254	3769275.650	298.70		
L0000381	450650.843	3769275.817	298.70		
L0000382	450659.431	3769275.984	298.70		
L0000383	450668.020	3769276.151	298.70		
L0000384	450676.608	3769276.318	298.70		
L0000385	450685.196	3769276.485	298.70		
L0000386	450693.785	3769276.652	298.70		
L0000387	450702.373	3769276.820	298.68		
L0000388	450710.961	3769276.987	298.59		
L0000389	450719.550	3769277.154	298.51		
L0000390	450728.138	3769277.321	298.42		
L0000391	450736.727	3769277.488	298.41		
L0000392	450745.315	3769277.655	298.41		
L0000393	450753.903	3769277.822	298.41		
L0000394	450762.492	3769277.989	298.39		
L0000395	450771.080	3769278.156	298.31		
L0000396	450779.668	3769278.323	298.23		
L0000397	450788.221	3769277.653	298.13		
L0000398	450796.764	3769276.758	298.10		

LOCATION	VOLUME			
L0000399	450805.308	3769275.863	298.10	
L0000400	450813.851	3769274.968	298.11	
L0000401	450822.408	3769274.325	298.14	
L0000402	450830.998	3769274.268	298.22	
L0000403	450839.588	3769274.212	298.29	
L0000404	450848.178	3769274.155	298.37	
L0000405	450856.767	3769274.099	298.44	
L0000406	450865.357	3769274.042	298.52	
L0000407	450873.947	3769273.985	298.60	
L0000408	450875.527	3769266.782	298.48	
L0000409	450875.750	3769258.195	298.32	
L0000410	450875.973	3769249.608	298.16	

\*\* End of LINE VOLUME Source ID = SLINE2

\*\* -----

\*\* Line Source Represented by Adjacent Volume Sources

\*\* LINE VOLUME Source ID = SLINE3

\*\* DESCRSRC Offsite

\*\* PREFIX

\*\* Length of Side = 14.00

\*\* Configuration = Adjacent

\*\* Emission Rate = 0.00002434

\*\* Vertical Dimension = 6.99

\*\* SZINIT = 3.25

\*\* Nodes = 14

\*\* 450531.488, 3769231.780, 298.42, 3.49, 6.51

\*\* 451458.160, 3769224.475, 296.68, 3.49, 6.51

\*\* 451477.884, 3769223.014, 297.16, 3.49, 6.51

\*\* 451508.566, 3769211.326, 297.73, 3.49, 6.51

\*\* 451579.062, 3769183.931, 297.18, 3.49, 6.51

\*\* 451600.612, 3769178.452, 297.61, 3.49, 6.51

\*\* 451630.198, 3769176.626, 297.58, 3.49, 6.51

\*\* 451633.851, 3769205.116, 298.46, 3.49, 6.51

\*\* 451632.755, 3769377.520, 307.01, 3.49, 6.51

\*\* 451633.851, 3769443.268, 304.95, 3.49, 6.51

\*\* 451634.581, 3769487.099, 305.91, 3.49, 6.51

\*\* 451637.869, 3769611.288, 307.59, 3.49, 6.51

\*\* 451637.869, 3769784.058, 305.17, 3.49, 6.51

\*\* 451642.335, 3769918.705, 307.93, 3.49, 6.51

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LOCATION L0000411	VOLUME 450538.488	3769231.725	298.40	
LOCATION L0000412	VOLUME 450552.488	3769231.615	298.43	
LOCATION L0000413	VOLUME 450566.487	3769231.505	298.57	
LOCATION L0000414	VOLUME 450580.487	3769231.394	298.70	
LOCATION L0000415	VOLUME 450594.486	3769231.284	298.70	
LOCATION L0000416	VOLUME 450608.486	3769231.173	298.70	
LOCATION L0000417	VOLUME 450622.485	3769231.063	298.70	
LOCATION L0000418	VOLUME 450636.485	3769230.953	298.70	
LOCATION L0000419	VOLUME 450650.485	3769230.842	298.70	
LOCATION L0000420	VOLUME 450664.484	3769230.732	298.70	
LOCATION L0000421	VOLUME 450678.484	3769230.622	298.61	
LOCATION L0000422	VOLUME 450692.483	3769230.511	298.47	
LOCATION L0000423	VOLUME 450706.483	3769230.401	298.40	
LOCATION L0000424	VOLUME 450720.482	3769230.291	298.40	
LOCATION L0000425	VOLUME 450734.482	3769230.180	298.40	
LOCATION L0000426	VOLUME 450748.481	3769230.070	298.40	
LOCATION L0000427	VOLUME 450762.481	3769229.959	298.40	
LOCATION L0000428	VOLUME 450776.481	3769229.849	298.40	
LOCATION L0000429	VOLUME 450790.480	3769229.739	298.40	
LOCATION L0000430	VOLUME 450804.480	3769229.628	298.40	
LOCATION L0000431	VOLUME 450818.479	3769229.518	298.40	
LOCATION L0000432	VOLUME 450832.479	3769229.408	298.34	
LOCATION L0000433	VOLUME 450846.478	3769229.297	298.28	
LOCATION L0000434	VOLUME 450860.478	3769229.187	298.08	
LOCATION L0000435	VOLUME 450874.478	3769229.077	297.83	
LOCATION L0000436	VOLUME 450888.477	3769228.966	297.74	
LOCATION L0000437	VOLUME 450902.477	3769228.856	297.74	

LOCATION L0000438	VOLUME	450916.476	3769228.745	297.70
LOCATION L0000439	VOLUME	450930.476	3769228.635	297.61
LOCATION L0000440	VOLUME	450944.475	3769228.525	297.50
LOCATION L0000441	VOLUME	450958.475	3769228.414	297.36
LOCATION L0000442	VOLUME	450972.475	3769228.304	297.23
LOCATION L0000443	VOLUME	450986.474	3769228.194	297.17
LOCATION L0000444	VOLUME	451000.474	3769228.083	297.11
LOCATION L0000445	VOLUME	451014.473	3769227.973	297.05
LOCATION L0000446	VOLUME	451028.473	3769227.863	297.00
LOCATION L0000447	VOLUME	451042.472	3769227.752	296.91
LOCATION L0000448	VOLUME	451056.472	3769227.642	296.82
LOCATION L0000449	VOLUME	451070.471	3769227.531	296.76
LOCATION L0000450	VOLUME	451084.471	3769227.421	296.70
LOCATION L0000451	VOLUME	451098.471	3769227.311	296.68
LOCATION L0000452	VOLUME	451112.470	3769227.200	296.68
LOCATION L0000453	VOLUME	451126.470	3769227.090	296.63
LOCATION L0000454	VOLUME	451140.469	3769226.980	296.54
LOCATION L0000455	VOLUME	451154.469	3769226.869	296.46
LOCATION L0000456	VOLUME	451168.468	3769226.759	296.41
LOCATION L0000457	VOLUME	451182.468	3769226.649	296.37
LOCATION L0000458	VOLUME	451196.468	3769226.538	296.37
LOCATION L0000459	VOLUME	451210.467	3769226.428	296.36
LOCATION L0000460	VOLUME	451224.467	3769226.317	296.32
LOCATION L0000461	VOLUME	451238.466	3769226.207	296.27
LOCATION L0000462	VOLUME	451252.466	3769226.097	296.18
LOCATION L0000463	VOLUME	451266.465	3769225.986	296.08
LOCATION L0000464	VOLUME	451280.465	3769225.876	295.95
LOCATION L0000465	VOLUME	451294.465	3769225.766	295.80
LOCATION L0000466	VOLUME	451308.464	3769225.655	295.66
LOCATION L0000467	VOLUME	451322.464	3769225.545	295.52
LOCATION L0000468	VOLUME	451336.463	3769225.435	295.51
LOCATION L0000469	VOLUME	451350.463	3769225.324	295.66
LOCATION L0000470	VOLUME	451364.462	3769225.214	295.85
LOCATION L0000471	VOLUME	451378.462	3769225.103	296.13
LOCATION L0000472	VOLUME	451392.461	3769224.993	296.37
LOCATION L0000473	VOLUME	451406.461	3769224.883	296.48
LOCATION L0000474	VOLUME	451420.461	3769224.772	296.58
LOCATION L0000475	VOLUME	451434.460	3769224.662	296.65
LOCATION L0000476	VOLUME	451448.460	3769224.552	296.73
LOCATION L0000477	VOLUME	451462.448	3769224.158	296.96
LOCATION L0000478	VOLUME	451476.409	3769223.123	297.19
LOCATION L0000479	VOLUME	451489.585	3769218.556	297.41
LOCATION L0000480	VOLUME	451502.668	3769213.573	297.56
LOCATION L0000481	VOLUME	451515.732	3769208.541	297.47
LOCATION L0000482	VOLUME	451528.782	3769203.470	297.27
LOCATION L0000483	VOLUME	451541.831	3769198.399	297.11
LOCATION L0000484	VOLUME	451554.880	3769193.328	297.17
LOCATION L0000485	VOLUME	451567.930	3769188.257	297.23
LOCATION L0000486	VOLUME	451581.055	3769183.424	297.30
LOCATION L0000487	VOLUME	451594.624	3769179.975	297.39
LOCATION L0000488	VOLUME	451608.418	3769177.970	297.39
LOCATION L0000489	VOLUME	451622.392	3769177.108	297.39
LOCATION L0000490	VOLUME	451630.984	3769182.754	297.63
LOCATION L0000491	VOLUME	451632.764	3769196.640	298.07
LOCATION L0000492	VOLUME	451633.816	3769210.571	298.48
LOCATION L0000493	VOLUME	451633.727	3769224.571	298.95
LOCATION L0000494	VOLUME	451633.638	3769238.570	299.44
LOCATION L0000495	VOLUME	451633.549	3769252.570	299.94
LOCATION L0000496	VOLUME	451633.460	3769266.570	300.44
LOCATION L0000497	VOLUME	451633.371	3769280.570	301.02
LOCATION L0000498	VOLUME	451633.282	3769294.569	301.79
LOCATION L0000499	VOLUME	451633.193	3769308.569	302.60
LOCATION L0000500	VOLUME	451633.104	3769322.569	303.59
LOCATION L0000501	VOLUME	451633.015	3769336.568	304.59
LOCATION L0000502	VOLUME	451632.926	3769350.568	305.92
LOCATION L0000503	VOLUME	451632.837	3769364.568	307.24



LOCATION	VOLUME			
LOCATION L0000504	VOLUME	451632.773	3769378.567	307.33
LOCATION L0000505	VOLUME	451633.006	3769392.566	307.21
LOCATION L0000506	VOLUME	451633.239	3769406.564	306.54
LOCATION L0000507	VOLUME	451633.472	3769420.562	305.68
LOCATION L0000508	VOLUME	451633.706	3769434.560	305.17
LOCATION L0000509	VOLUME	451633.939	3769448.558	304.90
LOCATION L0000510	VOLUME	451634.172	3769462.556	304.97
LOCATION L0000511	VOLUME	451634.406	3769476.554	305.44
LOCATION L0000512	VOLUME	451634.673	3769490.551	305.91
LOCATION L0000513	VOLUME	451635.043	3769504.546	306.38
LOCATION L0000514	VOLUME	451635.414	3769518.541	306.72
LOCATION L0000515	VOLUME	451635.784	3769532.536	306.47
LOCATION L0000516	VOLUME	451636.155	3769546.532	306.23
LOCATION L0000517	VOLUME	451636.525	3769560.527	306.34
LOCATION L0000518	VOLUME	451636.896	3769574.522	306.46
LOCATION L0000519	VOLUME	451637.266	3769588.517	306.97
LOCATION L0000520	VOLUME	451637.636	3769602.512	307.53
LOCATION L0000521	VOLUME	451637.869	3769616.509	307.71
LOCATION L0000522	VOLUME	451637.869	3769630.509	307.75
LOCATION L0000523	VOLUME	451637.869	3769644.509	307.23
LOCATION L0000524	VOLUME	451637.869	3769658.509	306.32
LOCATION L0000525	VOLUME	451637.869	3769672.509	305.61
LOCATION L0000526	VOLUME	451637.869	3769686.509	305.13
LOCATION L0000527	VOLUME	451637.869	3769700.509	304.74
LOCATION L0000528	VOLUME	451637.869	3769714.509	304.53
LOCATION L0000529	VOLUME	451637.869	3769728.509	304.39
LOCATION L0000530	VOLUME	451637.869	3769742.509	304.60
LOCATION L0000531	VOLUME	451637.869	3769756.509	304.80
LOCATION L0000532	VOLUME	451637.869	3769770.509	305.06
LOCATION L0000533	VOLUME	451637.884	3769784.509	305.33
LOCATION L0000534	VOLUME	451638.348	3769798.501	306.17
LOCATION L0000535	VOLUME	451638.812	3769812.493	307.08
LOCATION L0000536	VOLUME	451639.276	3769826.486	307.41
LOCATION L0000537	VOLUME	451639.740	3769840.478	307.50
LOCATION L0000538	VOLUME	451640.205	3769854.470	307.84
LOCATION L0000539	VOLUME	451640.669	3769868.462	308.36
LOCATION L0000540	VOLUME	451641.133	3769882.455	308.51
LOCATION L0000541	VOLUME	451641.597	3769896.447	308.19
LOCATION L0000542	VOLUME	451642.061	3769910.439	307.84

\*\* End of LINE VOLUME Source ID = SLINE3

\*\* Source Parameters \*\*

\*\* LINE VOLUME Source ID = SLINE1

SRCPARAM L0000338	0.000001673	3.49	4.00	3.25
SRCPARAM L0000339	0.000001673	3.49	4.00	3.25
SRCPARAM L0000340	0.000001673	3.49	4.00	3.25
SRCPARAM L0000341	0.000001673	3.49	4.00	3.25
SRCPARAM L0000342	0.000001673	3.49	4.00	3.25
SRCPARAM L0000343	0.000001673	3.49	4.00	3.25
SRCPARAM L0000344	0.000001673	3.49	4.00	3.25
SRCPARAM L0000345	0.000001673	3.49	4.00	3.25
SRCPARAM L0000346	0.000001673	3.49	4.00	3.25
SRCPARAM L0000347	0.000001673	3.49	4.00	3.25
SRCPARAM L0000348	0.000001673	3.49	4.00	3.25
SRCPARAM L0000349	0.000001673	3.49	4.00	3.25
SRCPARAM L0000350	0.000001673	3.49	4.00	3.25
SRCPARAM L0000351	0.000001673	3.49	4.00	3.25
SRCPARAM L0000352	0.000001673	3.49	4.00	3.25
SRCPARAM L0000353	0.000001673	3.49	4.00	3.25
SRCPARAM L0000354	0.000001673	3.49	4.00	3.25
SRCPARAM L0000355	0.000001673	3.49	4.00	3.25
SRCPARAM L0000356	0.000001673	3.49	4.00	3.25
SRCPARAM L0000357	0.000001673	3.49	4.00	3.25
SRCPARAM L0000358	0.000001673	3.49	4.00	3.25
SRCPARAM L0000359	0.000001673	3.49	4.00	3.25
SRCPARAM L0000360	0.000001673	3.49	4.00	3.25
SRCPARAM L0000361	0.000001673	3.49	4.00	3.25





SRCPARAM	L0000490	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000491	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000492	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000493	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000494	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000495	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000496	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000497	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000498	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000499	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000500	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000501	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000502	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000503	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000504	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000505	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000506	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000507	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000508	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000509	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000510	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000511	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000512	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000513	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000514	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000515	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000516	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000517	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000518	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000519	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000520	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000521	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000522	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000523	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000524	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000525	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000526	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000527	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000528	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000529	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000530	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000531	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000532	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000533	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000534	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000535	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000536	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000537	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000538	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000539	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000540	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000541	0.0000001844	3.49	6.51	3.25
SRCPARAM	L0000542	0.0000001844	3.49	6.51	3.25

\*\* -----

URBANSRC ALL  
SRCGROUP ALL

SO FINISHED

\*\*  
\*\*\*\*\*

\*\* AERMOD Receptor Pathway  
\*\*\*\*\*

\*\*  
\*\*

RE STARTING  
INCLUDED "14539 Ops.rou"

RE FINISHED

\*\*  
\*\*\*\*\*  
\*\* AERMOD Meteorology Pathway  
\*\*\*\*\*  
\*\*  
\*\*  
ME STARTING  
SURFFILE KONT\_V9\_ADJU\KONT\_v9.SFC  
PROFFILE KONT\_V9\_ADJU\KONT\_v9.PFL  
SURFDATA 3102 2012  
UAIRDATA 3190 2012  
PROFBASE 289.0 METERS

ME FINISHED  
\*\*  
\*\*\*\*\*  
\*\* AERMOD Output Pathway  
\*\*\*\*\*  
\*\*  
\*\*

OU STARTING  
\*\* Auto-Generated Plotfiles  
PLOTFILE ANNUAL ALL "14539 Ops.AD\AN00GALL.PLT" 31  
SUMMFILE "14539 Ops.sum"  
OU FINISHED

\*\*\* Message Summary For AERMOD Model Setup \*\*\*

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)  
A Total of 2 Warning Message(s)  
A Total of 0 Informational Message(s)

\*\*\*\*\* FATAL ERROR MESSAGES \*\*\*\*\*  
\*\*\* NONE \*\*\*

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*  
ME W186 540 MEOPEN: THRESH\_1MIN 1-min ASOS wind speed threshold used 0.50  
ME W187 540 MEOPEN: ADJ\_U\* Option for Stable Low Winds used in AERMET

\*\*\*\*\*  
\*\*\* SETUP Finishes Successfully \*\*\*  
\*\*\*\*\*

\*\*\* AERMOD - VERSION 21112 \*\*\* C:\Users\Michael Tirohn\Desktop\HRAs\14539 IE  
Distribution\14539 Ops \*\*\* 08/23/22  
\*\*\* AERMET - VERSION 16216 \*\*\*  
\*\*\* 11:35:02

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\*\*\* MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ\_U\*

\*\*\* MODEL SETUP OPTIONS SUMMARY \*\*\*

-----  
\*\*Model Is Setup For Calculation of Average CONCentration Values.

-- DEPOSITION LOGIC --  
\*\*NO GAS DEPOSITION Data Provided.  
\*\*NO PARTICLE DEPOSITION Data Provided.  
\*\*Model Uses NO DRY DEPLETION. DRYDPLT = F  
\*\*Model Uses NO WET DEPLETION. WETDPLT = F

\*\*Model Uses URBAN Dispersion Algorithm for the SBL for 205 Source(s),  
for Total of 1 Urban Area(s):  
Urban Population = 2035210.0 ; Urban Roughness Length = 1.000 m

\*\*Model Uses Regulatory DEFAULT Options:  
1. Stack-tip Downwash.  
2. Model Accounts for ELEvated Terrain Effects.  
3. Use Calms Processing Routine.  
4. Use Missing Data Processing Routine.  
5. No Exponential Decay.  
6. Urban Roughness Length of 1.0 Meter Assumed.

\*\*Other Options Specified:  
ADJ\_U\* - Use ADJ\_U\* option for SBL in AERMET  
CCVR\_Sub - Meteorological data includes CCVR substitutions  
TEMP\_Sub - Meteorological data includes TEMP substitutions

\*\*Model Assumes No FLAGPOLE Receptor Heights.

\*\*The User Specified a Pollutant Type of: DPM

\*\*Model Calculates ANNUAL Averages Only

\*\*This Run Includes: 205 Source(s); 1 Source Group(s); and 47 Receptor(s)

with: 0 POINT(s), including  
0 POINTCAP(s) and 0 POINTHOR(s)  
and: 205 VOLUME source(s)  
and: 0 AREA type source(s)  
and: 0 LINE source(s)  
and: 0 RLINE/RLINEXT source(s)  
and: 0 OPENPIT source(s)  
and: 0 BUOYANT LINE source(s) with a total of 0 line(s)

\*\*Model Set To Continue RUNning After the Setup Testing.

\*\*The AERMET Input Meteorological Data Version Date: 16216

\*\*Output Options Selected:  
Model Outputs Tables of ANNUAL Averages by Receptor  
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)  
Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

\*\*NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours  
m for Missing Hours  
b for Both Calm and Missing  
Hours

\*\*Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 289.00 ; Decay Coef. =  
0.000 ; Rot. Angle = 0.0  
Emission Units = GRAMS/SEC ; Emission Rate  
Unit Factor = 0.10000E+07  
Output Units = MICROGRAMS/M\*\*3

\*\*Approximate Storage Requirements of Model = 3.6 MB of RAM.

\*\*Input Runstream File:  
aermod.inp  
\*\*Output Print File:  
aermod.out

\*\*Detailed Error/Message File: 14539  
Ops.err  
\*\*File for Summary of Results: 14539

\*\*\* MODELOPTs: RegDFault CONC ELEV URBAN ADJ\_U\*

\*\*\* VOLUME SOURCE DATA \*\*\*

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ
ID	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	
(METERS)		BY						
L0000338	0	0.16730E-05	450588.6	3769293.5	298.6	3.49	4.00	3.25
YES								
L0000339	0	0.16730E-05	450597.2	3769293.7	298.6	3.49	4.00	3.25
YES								
L0000340	0	0.16730E-05	450605.7	3769294.0	298.6	3.49	4.00	3.25
YES								
L0000341	0	0.16730E-05	450614.3	3769294.2	298.6	3.49	4.00	3.25
YES								
L0000342	0	0.16730E-05	450622.9	3769294.5	298.6	3.49	4.00	3.25
YES								
L0000343	0	0.16730E-05	450631.5	3769294.7	298.7	3.49	4.00	3.25
YES								
L0000344	0	0.16730E-05	450640.1	3769295.0	298.7	3.49	4.00	3.25
YES								
L0000345	0	0.16730E-05	450648.7	3769295.2	298.7	3.49	4.00	3.25
YES								
L0000346	0	0.16730E-05	450657.3	3769295.5	298.7	3.49	4.00	3.25
YES								
L0000347	0	0.16730E-05	450665.8	3769295.7	298.7	3.49	4.00	3.25
YES								
L0000348	0	0.16730E-05	450674.4	3769296.0	298.7	3.49	4.00	3.25
YES								
L0000349	0	0.16730E-05	450683.0	3769296.2	298.7	3.49	4.00	3.25
YES								
L0000350	0	0.16730E-05	450691.6	3769296.5	298.7	3.49	4.00	3.25
YES								
L0000351	0	0.16730E-05	450700.2	3769296.7	298.7	3.49	4.00	3.25
YES								
L0000352	0	0.16730E-05	450708.8	3769297.0	298.7	3.49	4.00	3.25
YES								
L0000353	0	0.16730E-05	450717.4	3769297.3	298.7	3.49	4.00	3.25
YES								
L0000354	0	0.16730E-05	450726.0	3769297.5	298.6	3.49	4.00	3.25
YES								
L0000355	0	0.16730E-05	450734.5	3769297.8	298.6	3.49	4.00	3.25
YES								
L0000356	0	0.16730E-05	450743.1	3769298.0	298.6	3.49	4.00	3.25
YES								
L0000357	0	0.16730E-05	450751.7	3769298.3	298.6	3.49	4.00	3.25
YES								
L0000358	0	0.16730E-05	450760.3	3769298.5	298.6	3.49	4.00	3.25
YES								
L0000359	0	0.16730E-05	450768.9	3769298.8	298.6	3.49	4.00	3.25
YES								
L0000360	0	0.16730E-05	450777.5	3769299.0	298.6	3.49	4.00	3.25

```

YES
L0000361      0  0.16730E-05  450786.1 3769299.3  298.6   3.49   4.00   3.25
YES
L0000362      0  0.16730E-05  450794.6 3769299.5  298.6   3.49   4.00   3.25
YES
L0000363      0  0.16730E-05  450803.2 3769299.8  298.6   3.49   4.00   3.25
YES
L0000364      0  0.16730E-05  450811.8 3769300.0  298.6   3.49   4.00   3.25
YES
L0000365      0  0.32220E-06  450532.1 3769248.3  298.4   3.49   4.00   3.25
YES
L0000366      0  0.32220E-06  450532.1 3769256.9  298.5   3.49   4.00   3.25
YES
L0000367      0  0.32220E-06  450536.0 3769261.6  298.6   3.49   4.00   3.25
YES
L0000368      0  0.32220E-06  450544.6 3769261.7  298.6   3.49   4.00   3.25
YES
L0000369      0  0.32220E-06  450553.2 3769261.7  298.6   3.49   4.00   3.25
YES
L0000370      0  0.32220E-06  450561.8 3769261.8  298.6   3.49   4.00   3.25
YES
L0000371      0  0.32220E-06  450570.4 3769261.8  298.6   3.49   4.00   3.25
YES
L0000372      0  0.32220E-06  450578.9 3769261.9  298.6   3.49   4.00   3.25
YES
L0000373      0  0.32220E-06  450585.7 3769266.4  298.5   3.49   4.00   3.25
YES
L0000374      0  0.32220E-06  450591.6 3769272.5  298.4   3.49   4.00   3.25
YES
L0000375      0  0.32220E-06  450599.3 3769274.8  298.4   3.49   4.00   3.25
YES
L0000376      0  0.32220E-06  450607.9 3769275.0  298.4   3.49   4.00   3.25
YES
L0000377      0  0.32220E-06  450616.5 3769275.1  298.5   3.49   4.00   3.25
YES

```

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*** AERMOD - VERSION 21112 ***      *** C:\Users\Michael Tirohn\Desktop\HRAs\14539 IE
Distribution\14539 Ops ***      08/23/22
*** AERMET - VERSION 16216 ***
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11:35:02

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\*\*\* MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ\_U\*

\*\*\* VOLUME SOURCE DATA \*\*\*

SOURCE	NUMBER	EMISSION	RATE		BASE	RELEASE	INIT.	INIT.
SOURCE	URBAN	EMISSION	RATE		ELEV.	HEIGHT	SY	SZ
ID	PART.	(GRAMS/SEC)		X	(METERS)	(METERS)	(METERS)	(METERS)
(METERS)	SCALAR	VARY						
	CATS.		BY					
L0000378	0	0.32220E-06	450625.1	3769275.3	298.6	3.49	4.00	3.25
YES								
L0000379	0	0.32220E-06	450633.7	3769275.5	298.7	3.49	4.00	3.25
YES								
L0000380	0	0.32220E-06	450642.3	3769275.6	298.7	3.49	4.00	3.25
YES								
L0000381	0	0.32220E-06	450650.8	3769275.8	298.7	3.49	4.00	3.25
YES								
L0000382	0	0.32220E-06	450659.4	3769276.0	298.7	3.49	4.00	3.25
YES								
L0000383	0	0.32220E-06	450668.0	3769276.2	298.7	3.49	4.00	3.25



YES								
L0000384	0	0.32220E-06	450676.6	3769276.3	298.7	3.49	4.00	3.25
YES								
L0000385	0	0.32220E-06	450685.2	3769276.5	298.7	3.49	4.00	3.25
YES								
L0000386	0	0.32220E-06	450693.8	3769276.7	298.7	3.49	4.00	3.25
YES								
L0000387	0	0.32220E-06	450702.4	3769276.8	298.7	3.49	4.00	3.25
YES								
L0000388	0	0.32220E-06	450711.0	3769277.0	298.6	3.49	4.00	3.25
YES								
L0000389	0	0.32220E-06	450719.5	3769277.2	298.5	3.49	4.00	3.25
YES								
L0000390	0	0.32220E-06	450728.1	3769277.3	298.4	3.49	4.00	3.25
YES								
L0000391	0	0.32220E-06	450736.7	3769277.5	298.4	3.49	4.00	3.25
YES								
L0000392	0	0.32220E-06	450745.3	3769277.7	298.4	3.49	4.00	3.25
YES								
L0000393	0	0.32220E-06	450753.9	3769277.8	298.4	3.49	4.00	3.25
YES								
L0000394	0	0.32220E-06	450762.5	3769278.0	298.4	3.49	4.00	3.25
YES								
L0000395	0	0.32220E-06	450771.1	3769278.2	298.3	3.49	4.00	3.25
YES								
L0000396	0	0.32220E-06	450779.7	3769278.3	298.2	3.49	4.00	3.25
YES								
L0000397	0	0.32220E-06	450788.2	3769277.7	298.1	3.49	4.00	3.25
YES								
L0000398	0	0.32220E-06	450796.8	3769276.8	298.1	3.49	4.00	3.25
YES								
L0000399	0	0.32220E-06	450805.3	3769275.9	298.1	3.49	4.00	3.25
YES								
L0000400	0	0.32220E-06	450813.9	3769275.0	298.1	3.49	4.00	3.25
YES								
L0000401	0	0.32220E-06	450822.4	3769274.3	298.1	3.49	4.00	3.25
YES								
L0000402	0	0.32220E-06	450831.0	3769274.3	298.2	3.49	4.00	3.25
YES								
L0000403	0	0.32220E-06	450839.6	3769274.2	298.3	3.49	4.00	3.25
YES								
L0000404	0	0.32220E-06	450848.2	3769274.2	298.4	3.49	4.00	3.25
YES								
L0000405	0	0.32220E-06	450856.8	3769274.1	298.4	3.49	4.00	3.25
YES								
L0000406	0	0.32220E-06	450865.4	3769274.0	298.5	3.49	4.00	3.25
YES								
L0000407	0	0.32220E-06	450873.9	3769274.0	298.6	3.49	4.00	3.25
YES								
L0000408	0	0.32220E-06	450875.5	3769266.8	298.5	3.49	4.00	3.25
YES								
L0000409	0	0.32220E-06	450875.8	3769258.2	298.3	3.49	4.00	3.25
YES								
L0000410	0	0.32220E-06	450876.0	3769249.6	298.2	3.49	4.00	3.25
YES								
L0000411	0	0.18440E-06	450538.5	3769231.7	298.4	3.49	6.51	3.25
YES								
L0000412	0	0.18440E-06	450552.5	3769231.6	298.4	3.49	6.51	3.25
YES								
L0000413	0	0.18440E-06	450566.5	3769231.5	298.6	3.49	6.51	3.25
YES								
L0000414	0	0.18440E-06	450580.5	3769231.4	298.7	3.49	6.51	3.25
YES								
L0000415	0	0.18440E-06	450594.5	3769231.3	298.7	3.49	6.51	3.25
YES								
L0000416	0	0.18440E-06	450608.5	3769231.2	298.7	3.49	6.51	3.25

YES  
L0000417 0 0.18440E-06 450622.5 3769231.1 298.7 3.49 6.51 3.25

YES  
\*\*\* AERMOD - VERSION 21112 \*\*\* \*\* C:\Users\Michael Tirohn\Desktop\HRAs\14539 IE  
Distribution\14539 Ops \*\*\* 08/23/22

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\*\*\* MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ\_U\*

\*\*\* VOLUME SOURCE DATA \*\*\*

SOURCE	NUMBER	EMISSION	RATE			BASE	RELEASE	INIT.	INIT.
SOURCE	URBAN	EMISSION	RATE	X	Y	ELEV.	HEIGHT	SY	SZ
ID	SCALAR	PART.	(GRAMS/SEC)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)
(METERS)	VARY	CATS.	BY						
L0000418	0	0.18440E-06	450636.5	3769231.0	298.7	3.49	6.51	3.25	
YES									
L0000419	0	0.18440E-06	450650.5	3769230.8	298.7	3.49	6.51	3.25	
YES									
L0000420	0	0.18440E-06	450664.5	3769230.7	298.7	3.49	6.51	3.25	
YES									
L0000421	0	0.18440E-06	450678.5	3769230.6	298.6	3.49	6.51	3.25	
YES									
L0000422	0	0.18440E-06	450692.5	3769230.5	298.5	3.49	6.51	3.25	
YES									
L0000423	0	0.18440E-06	450706.5	3769230.4	298.4	3.49	6.51	3.25	
YES									
L0000424	0	0.18440E-06	450720.5	3769230.3	298.4	3.49	6.51	3.25	
YES									
L0000425	0	0.18440E-06	450734.5	3769230.2	298.4	3.49	6.51	3.25	
YES									
L0000426	0	0.18440E-06	450748.5	3769230.1	298.4	3.49	6.51	3.25	
YES									
L0000427	0	0.18440E-06	450762.5	3769230.0	298.4	3.49	6.51	3.25	
YES									
L0000428	0	0.18440E-06	450776.5	3769229.8	298.4	3.49	6.51	3.25	
YES									
L0000429	0	0.18440E-06	450790.5	3769229.7	298.4	3.49	6.51	3.25	
YES									
L0000430	0	0.18440E-06	450804.5	3769229.6	298.4	3.49	6.51	3.25	
YES									
L0000431	0	0.18440E-06	450818.5	3769229.5	298.4	3.49	6.51	3.25	
YES									
L0000432	0	0.18440E-06	450832.5	3769229.4	298.3	3.49	6.51	3.25	
YES									
L0000433	0	0.18440E-06	450846.5	3769229.3	298.3	3.49	6.51	3.25	
YES									
L0000434	0	0.18440E-06	450860.5	3769229.2	298.1	3.49	6.51	3.25	
YES									
L0000435	0	0.18440E-06	450874.5	3769229.1	297.8	3.49	6.51	3.25	
YES									
L0000436	0	0.18440E-06	450888.5	3769229.0	297.7	3.49	6.51	3.25	
YES									
L0000437	0	0.18440E-06	450902.5	3769228.9	297.7	3.49	6.51	3.25	
YES									
L0000438	0	0.18440E-06	450916.5	3769228.7	297.7	3.49	6.51	3.25	
YES									
L0000439	0	0.18440E-06	450930.5	3769228.6	297.6	3.49	6.51	3.25	

YES	L0000440	0	0.18440E-06	450944.5	3769228.5	297.5	3.49	6.51	3.25
YES	L0000441	0	0.18440E-06	450958.5	3769228.4	297.4	3.49	6.51	3.25
YES	L0000442	0	0.18440E-06	450972.5	3769228.3	297.2	3.49	6.51	3.25
YES	L0000443	0	0.18440E-06	450986.5	3769228.2	297.2	3.49	6.51	3.25
YES	L0000444	0	0.18440E-06	451000.5	3769228.1	297.1	3.49	6.51	3.25
YES	L0000445	0	0.18440E-06	451014.5	3769228.0	297.1	3.49	6.51	3.25
YES	L0000446	0	0.18440E-06	451028.5	3769227.9	297.0	3.49	6.51	3.25
YES	L0000447	0	0.18440E-06	451042.5	3769227.8	296.9	3.49	6.51	3.25
YES	L0000448	0	0.18440E-06	451056.5	3769227.6	296.8	3.49	6.51	3.25
YES	L0000449	0	0.18440E-06	451070.5	3769227.5	296.8	3.49	6.51	3.25
YES	L0000450	0	0.18440E-06	451084.5	3769227.4	296.7	3.49	6.51	3.25
YES	L0000451	0	0.18440E-06	451098.5	3769227.3	296.7	3.49	6.51	3.25
YES	L0000452	0	0.18440E-06	451112.5	3769227.2	296.7	3.49	6.51	3.25
YES	L0000453	0	0.18440E-06	451126.5	3769227.1	296.6	3.49	6.51	3.25
YES	L0000454	0	0.18440E-06	451140.5	3769227.0	296.5	3.49	6.51	3.25
YES	L0000455	0	0.18440E-06	451154.5	3769226.9	296.5	3.49	6.51	3.25
YES	L0000456	0	0.18440E-06	451168.5	3769226.8	296.4	3.49	6.51	3.25
YES	L0000457	0	0.18440E-06	451182.5	3769226.6	296.4	3.49	6.51	3.25

\*\*\* AERMOD - VERSION 21112 \*\*\* C:\Users\Michael Tirohn\Desktop\HRAs\14539 IE  
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\*\*\* MODELOPTs: RegDEFAULT CONC ELEV URBAN ADJ\_U\*

\*\*\* VOLUME SOURCE DATA \*\*\*

SOURCE	NUMBER	EMISSION RATE	BASE	RELEASE	INIT.	INIT.		
SOURCE	URBAN	EMISSION RATE	ELEV.	HEIGHT	SY	SZ		
ID	PART.	(GRAMS/SEC)	(METERS)	(METERS)	(METERS)	(METERS)		
(METERS)	SCALAR VARY	BY						
	CATS.							
L0000458	0	0.18440E-06	451196.5	3769226.5	296.4	3.49	6.51	3.25
YES								
L0000459	0	0.18440E-06	451210.5	3769226.4	296.4	3.49	6.51	3.25
YES								
L0000460	0	0.18440E-06	451224.5	3769226.3	296.3	3.49	6.51	3.25
YES								
L0000461	0	0.18440E-06	451238.5	3769226.2	296.3	3.49	6.51	3.25
YES								
L0000462	0	0.18440E-06	451252.5	3769226.1	296.2	3.49	6.51	3.25

YES								
L0000463	0	0.18440E-06	451266.5	3769226.0	296.1	3.49	6.51	3.25
YES								
L0000464	0	0.18440E-06	451280.5	3769225.9	295.9	3.49	6.51	3.25
YES								
L0000465	0	0.18440E-06	451294.5	3769225.8	295.8	3.49	6.51	3.25
YES								
L0000466	0	0.18440E-06	451308.5	3769225.7	295.7	3.49	6.51	3.25
YES								
L0000467	0	0.18440E-06	451322.5	3769225.5	295.5	3.49	6.51	3.25
YES								
L0000468	0	0.18440E-06	451336.5	3769225.4	295.5	3.49	6.51	3.25
YES								
L0000469	0	0.18440E-06	451350.5	3769225.3	295.7	3.49	6.51	3.25
YES								
L0000470	0	0.18440E-06	451364.5	3769225.2	295.9	3.49	6.51	3.25
YES								
L0000471	0	0.18440E-06	451378.5	3769225.1	296.1	3.49	6.51	3.25
YES								
L0000472	0	0.18440E-06	451392.5	3769225.0	296.4	3.49	6.51	3.25
YES								
L0000473	0	0.18440E-06	451406.5	3769224.9	296.5	3.49	6.51	3.25
YES								
L0000474	0	0.18440E-06	451420.5	3769224.8	296.6	3.49	6.51	3.25
YES								
L0000475	0	0.18440E-06	451434.5	3769224.7	296.7	3.49	6.51	3.25
YES								
L0000476	0	0.18440E-06	451448.5	3769224.6	296.7	3.49	6.51	3.25
YES								
L0000477	0	0.18440E-06	451462.4	3769224.2	297.0	3.49	6.51	3.25
YES								
L0000478	0	0.18440E-06	451476.4	3769223.1	297.2	3.49	6.51	3.25
YES								
L0000479	0	0.18440E-06	451489.6	3769218.6	297.4	3.49	6.51	3.25
YES								
L0000480	0	0.18440E-06	451502.7	3769213.6	297.6	3.49	6.51	3.25
YES								
L0000481	0	0.18440E-06	451515.7	3769208.5	297.5	3.49	6.51	3.25
YES								
L0000482	0	0.18440E-06	451528.8	3769203.5	297.3	3.49	6.51	3.25
YES								
L0000483	0	0.18440E-06	451541.8	3769198.4	297.1	3.49	6.51	3.25
YES								
L0000484	0	0.18440E-06	451554.9	3769193.3	297.2	3.49	6.51	3.25
YES								
L0000485	0	0.18440E-06	451567.9	3769188.3	297.2	3.49	6.51	3.25
YES								
L0000486	0	0.18440E-06	451581.1	3769183.4	297.3	3.49	6.51	3.25
YES								
L0000487	0	0.18440E-06	451594.6	3769180.0	297.4	3.49	6.51	3.25
YES								
L0000488	0	0.18440E-06	451608.4	3769178.0	297.4	3.49	6.51	3.25
YES								
L0000489	0	0.18440E-06	451622.4	3769177.1	297.4	3.49	6.51	3.25
YES								
L0000490	0	0.18440E-06	451631.0	3769182.8	297.6	3.49	6.51	3.25
YES								
L0000491	0	0.18440E-06	451632.8	3769196.6	298.1	3.49	6.51	3.25
YES								
L0000492	0	0.18440E-06	451633.8	3769210.6	298.5	3.49	6.51	3.25
YES								
L0000493	0	0.18440E-06	451633.7	3769224.6	298.9	3.49	6.51	3.25
YES								
L0000494	0	0.18440E-06	451633.6	3769238.6	299.4	3.49	6.51	3.25
YES								
L0000495	0	0.18440E-06	451633.5	3769252.6	299.9	3.49	6.51	3.25

YES  
 L0000496      0   0.18440E-06   451633.5   3769266.6   300.4   3.49   6.51   3.25  
 YES  
 L0000497      0   0.18440E-06   451633.4   3769280.6   301.0   3.49   6.51   3.25  
 YES  
 \*\*\* AERMOD - VERSION 21112 \*\*\*      \*\*\* C:\Users\Michael Tirohn\Desktop\HRAs\14539 IE  
 Distribution\14539 Ops \*\*\*      08/23/22  
 \*\*\* AERMET - VERSION 16216 \*\*\*  
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\*\*\* MODELOPTs:      RegDFAULT   CONC   ELEV   URBAN   ADJ\_U\*

\*\*\* VOLUME SOURCE DATA \*\*\*

SOURCE SOURCE ID (METERS)	SCALAR VARY CATS.	NUMBER URBAN PART. EMISSION RATE (GRAMS/SEC) BY	EMISSION RATE (GRAMS/SEC)	X	Y	BASE	RELEASE	INIT.	INIT.
						ELEV. (METERS)	HEIGHT (METERS)	SY (METERS)	SZ (METERS)
L0000498	0	0.18440E-06	451633.3	3769294.6	301.8	3.49	6.51	3.25	3.25
YES									
L0000499	0	0.18440E-06	451633.2	3769308.6	302.6	3.49	6.51	3.25	3.25
YES									
L0000500	0	0.18440E-06	451633.1	3769322.6	303.6	3.49	6.51	3.25	3.25
YES									
L0000501	0	0.18440E-06	451633.0	3769336.6	304.6	3.49	6.51	3.25	3.25
YES									
L0000502	0	0.18440E-06	451632.9	3769350.6	305.9	3.49	6.51	3.25	3.25
YES									
L0000503	0	0.18440E-06	451632.8	3769364.6	307.2	3.49	6.51	3.25	3.25
YES									
L0000504	0	0.18440E-06	451632.8	3769378.6	307.3	3.49	6.51	3.25	3.25
YES									
L0000505	0	0.18440E-06	451633.0	3769392.6	307.2	3.49	6.51	3.25	3.25
YES									
L0000506	0	0.18440E-06	451633.2	3769406.6	306.5	3.49	6.51	3.25	3.25
YES									
L0000507	0	0.18440E-06	451633.5	3769420.6	305.7	3.49	6.51	3.25	3.25
YES									
L0000508	0	0.18440E-06	451633.7	3769434.6	305.2	3.49	6.51	3.25	3.25
YES									
L0000509	0	0.18440E-06	451633.9	3769448.6	304.9	3.49	6.51	3.25	3.25
YES									
L0000510	0	0.18440E-06	451634.2	3769462.6	305.0	3.49	6.51	3.25	3.25
YES									
L0000511	0	0.18440E-06	451634.4	3769476.6	305.4	3.49	6.51	3.25	3.25
YES									
L0000512	0	0.18440E-06	451634.7	3769490.6	305.9	3.49	6.51	3.25	3.25
YES									
L0000513	0	0.18440E-06	451635.0	3769504.5	306.4	3.49	6.51	3.25	3.25
YES									
L0000514	0	0.18440E-06	451635.4	3769518.5	306.7	3.49	6.51	3.25	3.25
YES									
L0000515	0	0.18440E-06	451635.8	3769532.5	306.5	3.49	6.51	3.25	3.25
YES									
L0000516	0	0.18440E-06	451636.2	3769546.5	306.2	3.49	6.51	3.25	3.25
YES									
L0000517	0	0.18440E-06	451636.5	3769560.5	306.3	3.49	6.51	3.25	3.25
YES									
L0000518	0	0.18440E-06	451636.9	3769574.5	306.5	3.49	6.51	3.25	3.25

YES  
 L0000519 0 0.18440E-06 451637.3 3769588.5 307.0 3.49 6.51 3.25  
 YES  
 L0000520 0 0.18440E-06 451637.6 3769602.5 307.5 3.49 6.51 3.25  
 YES  
 L0000521 0 0.18440E-06 451637.9 3769616.5 307.7 3.49 6.51 3.25  
 YES  
 L0000522 0 0.18440E-06 451637.9 3769630.5 307.8 3.49 6.51 3.25  
 YES  
 L0000523 0 0.18440E-06 451637.9 3769644.5 307.2 3.49 6.51 3.25  
 YES  
 L0000524 0 0.18440E-06 451637.9 3769658.5 306.3 3.49 6.51 3.25  
 YES  
 L0000525 0 0.18440E-06 451637.9 3769672.5 305.6 3.49 6.51 3.25  
 YES  
 L0000526 0 0.18440E-06 451637.9 3769686.5 305.1 3.49 6.51 3.25  
 YES  
 L0000527 0 0.18440E-06 451637.9 3769700.5 304.7 3.49 6.51 3.25  
 YES  
 L0000528 0 0.18440E-06 451637.9 3769714.5 304.5 3.49 6.51 3.25  
 YES  
 L0000529 0 0.18440E-06 451637.9 3769728.5 304.4 3.49 6.51 3.25  
 YES  
 L0000530 0 0.18440E-06 451637.9 3769742.5 304.6 3.49 6.51 3.25  
 YES  
 L0000531 0 0.18440E-06 451637.9 3769756.5 304.8 3.49 6.51 3.25  
 YES  
 L0000532 0 0.18440E-06 451637.9 3769770.5 305.1 3.49 6.51 3.25  
 YES  
 L0000533 0 0.18440E-06 451637.9 3769784.5 305.3 3.49 6.51 3.25  
 YES  
 L0000534 0 0.18440E-06 451638.3 3769798.5 306.2 3.49 6.51 3.25  
 YES  
 L0000535 0 0.18440E-06 451638.8 3769812.5 307.1 3.49 6.51 3.25  
 YES  
 L0000536 0 0.18440E-06 451639.3 3769826.5 307.4 3.49 6.51 3.25  
 YES  
 L0000537 0 0.18440E-06 451639.7 3769840.5 307.5 3.49 6.51 3.25  
 YES

\*\*\* AERMOD - VERSION 21112 \*\*\* C:\Users\Michael Tirohn\Desktop\HRAs\14539 IE  
 Distribution\14539 Ops \*\*\* 08/23/22

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\*\*\* MODELOPTs: RegDEFAULT CONC ELEV URBAN ADJ\_U\*

\*\*\* VOLUME SOURCE DATA \*\*\*

SOURCE	NUMBER	EMISSION	RATE		BASE	RELEASE	INIT.	INIT.
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ
ID	SCALAR	VARY			(METERS)	(METERS)	(METERS)	(METERS)
(METERS)	CATS.	BY						

L0000538 0 0.18440E-06 451640.2 3769854.5 307.8 3.49 6.51 3.25  
 YES  
 L0000539 0 0.18440E-06 451640.7 3769868.5 308.4 3.49 6.51 3.25  
 YES  
 L0000540 0 0.18440E-06 451641.1 3769882.5 308.5 3.49 6.51 3.25  
 YES  
 L0000541 0 0.18440E-06 451641.6 3769896.4 308.2 3.49 6.51 3.25

YES  
L0000542 0 0.18440E-06 451642.1 3769910.4 307.8 3.49 6.51 3.25

YES

\*\*\* AERMOD - VERSION 21112 \*\*\* C:\Users\Michael Tirohn\Desktop\HRAs\14539 IE  
Distribution\14539 Ops \*\*\* 08/23/22

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\*\*\* MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ\_U\*

\*\*\* SOURCE IDs DEFINING SOURCE GROUPS \*\*\*

SRCGROUP ID

SOURCE IDs

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ALL	L0000338	, L0000339	, L0000340	, L0000341	, L0000342	, L0000343	,
L0000344	, L0000345	,					
	L0000346	, L0000347	, L0000348	, L0000349	, L0000350	, L0000351	,
	L0000352	, L0000353	,				
	L0000354	, L0000355	, L0000356	, L0000357	, L0000358	, L0000359	,
	L0000360	, L0000361	,				
	L0000362	, L0000363	, L0000364	, L0000365	, L0000366	, L0000367	,
	L0000368	, L0000369	,				
	L0000370	, L0000371	, L0000372	, L0000373	, L0000374	, L0000375	,
	L0000376	, L0000377	,				
	L0000378	, L0000379	, L0000380	, L0000381	, L0000382	, L0000383	,
	L0000384	, L0000385	,				
	L0000386	, L0000387	, L0000388	, L0000389	, L0000390	, L0000391	,
	L0000392	, L0000393	,				
	L0000394	, L0000395	, L0000396	, L0000397	, L0000398	, L0000399	,
	L0000400	, L0000401	,				
	L0000402	, L0000403	, L0000404	, L0000405	, L0000406	, L0000407	,
	L0000408	, L0000409	,				
	L0000410	, L0000411	, L0000412	, L0000413	, L0000414	, L0000415	,
	L0000416	, L0000417	,				
	L0000418	, L0000419	, L0000420	, L0000421	, L0000422	, L0000423	,
	L0000424	, L0000425	,				
	L0000426	, L0000427	, L0000428	, L0000429	, L0000430	, L0000431	,
	L0000432	, L0000433	,				
	L0000434	, L0000435	, L0000436	, L0000437	, L0000438	, L0000439	,
	L0000440	, L0000441	,				
	L0000442	, L0000443	, L0000444	, L0000445	, L0000446	, L0000447	,
	L0000448	, L0000449	,				
	L0000450	, L0000451	, L0000452	, L0000453	, L0000454	, L0000455	,
	L0000456	, L0000457	,				
	L0000458	, L0000459	, L0000460	, L0000461	, L0000462	, L0000463	,
	L0000464	, L0000465	,				

L0000466 , L0000467 , L0000468 , L0000469 , L0000470 , L0000471 ,  
L0000472 , L0000473 ,  
  
L0000474 , L0000475 , L0000476 , L0000477 , L0000478 , L0000479 ,  
L0000480 , L0000481 ,  
  
L0000482 , L0000483 , L0000484 , L0000485 , L0000486 , L0000487 ,  
L0000488 , L0000489 ,  
  
L0000490 , L0000491 , L0000492 , L0000493 , L0000494 , L0000495 ,  
L0000496 , L0000497 ,

\*\*\* AERMOD - VERSION 21112 \*\*\* C:\Users\Michael Tirohn\Desktop\HRAs\14539 IE  
Distribution\14539 Ops \*\*\* 08/23/22

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\*\*\*

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\*\*\* MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ\_U\*

\*\*\* SOURCE IDs DEFINING SOURCE GROUPS \*\*\*

SRCGROUP ID  
-----

SOURCE IDs  
-----

L0000498 , L0000499 , L0000500 , L0000501 , L0000502 , L0000503 ,  
L0000504 , L0000505 ,  
  
L0000506 , L0000507 , L0000508 , L0000509 , L0000510 , L0000511 ,  
L0000512 , L0000513 ,  
  
L0000514 , L0000515 , L0000516 , L0000517 , L0000518 , L0000519 ,  
L0000520 , L0000521 ,  
  
L0000522 , L0000523 , L0000524 , L0000525 , L0000526 , L0000527 ,  
L0000528 , L0000529 ,  
  
L0000530 , L0000531 , L0000532 , L0000533 , L0000534 , L0000535 ,  
L0000536 , L0000537 ,  
  
L0000538 , L0000539 , L0000540 , L0000541 , L0000542 ,

\*\*\* AERMOD - VERSION 21112 \*\*\* C:\Users\Michael Tirohn\Desktop\HRAs\14539 IE  
Distribution\14539 Ops \*\*\* 08/23/22

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\*\*\* MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ\_U\*

\*\*\* SOURCE IDs DEFINED AS URBAN SOURCES \*\*\*

URBAN ID URBAN POP  
-----

SOURCE IDs  
-----

L0000345 , 2035210. L0000338 , L0000339 , L0000340 , L0000341 , L0000342 ,  
L0000343 , L0000344 ,  
  
L0000346 , L0000347 , L0000348 , L0000349 , L0000350 , L0000351 ,  
L0000352 , L0000353 ,  
  
L0000354 , L0000355 , L0000356 , L0000357 , L0000358 , L0000359 ,  
L0000360 , L0000361 ,



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L0000362 , L0000363 , L0000364 , L0000365 , L0000366 , L0000367 ,
L0000368 , L0000369 ,

L0000370 , L0000371 , L0000372 , L0000373 , L0000374 , L0000375 ,
L0000376 , L0000377 ,

L0000378 , L0000379 , L0000380 , L0000381 , L0000382 , L0000383 ,
L0000384 , L0000385 ,

L0000386 , L0000387 , L0000388 , L0000389 , L0000390 , L0000391 ,
L0000392 , L0000393 ,

L0000394 , L0000395 , L0000396 , L0000397 , L0000398 , L0000399 ,
L0000400 , L0000401 ,

L0000402 , L0000403 , L0000404 , L0000405 , L0000406 , L0000407 ,
L0000408 , L0000409 ,

L0000410 , L0000411 , L0000412 , L0000413 , L0000414 , L0000415 ,
L0000416 , L0000417 ,

L0000418 , L0000419 , L0000420 , L0000421 , L0000422 , L0000423 ,
L0000424 , L0000425 ,

L0000426 , L0000427 , L0000428 , L0000429 , L0000430 , L0000431 ,
L0000432 , L0000433 ,

L0000434 , L0000435 , L0000436 , L0000437 , L0000438 , L0000439 ,
L0000440 , L0000441 ,

L0000442 , L0000443 , L0000444 , L0000445 , L0000446 , L0000447 ,
L0000448 , L0000449 ,

L0000450 , L0000451 , L0000452 , L0000453 , L0000454 , L0000455 ,
L0000456 , L0000457 ,

L0000458 , L0000459 , L0000460 , L0000461 , L0000462 , L0000463 ,
L0000464 , L0000465 ,

L0000466 , L0000467 , L0000468 , L0000469 , L0000470 , L0000471 ,
L0000472 , L0000473 ,

L0000474 , L0000475 , L0000476 , L0000477 , L0000478 , L0000479 ,
L0000480 , L0000481 ,

L0000482 , L0000483 , L0000484 , L0000485 , L0000486 , L0000487 ,
L0000488 , L0000489 ,

L0000490 , L0000491 , L0000492 , L0000493 , L0000494 , L0000495 ,
L0000496 , L0000497 ,

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*** AERMOD - VERSION 21112 *** *** C:\Users\Michael Tirohn\Desktop\HRAs\14539 IE
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\*\*\* MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ\_U\*

\*\*\* SOURCE IDs DEFINED AS URBAN SOURCES \*\*\*

URBAN ID	URBAN POP	SOURCE IDs
-----	-----	-----

L0000498 , L0000499 , L0000500 , L0000501 , L0000502 , L0000503 ,  
L0000504 , L0000505 ,  
  
L0000506 , L0000507 , L0000508 , L0000509 , L0000510 , L0000511 ,  
L0000512 , L0000513 ,  
  
L0000514 , L0000515 , L0000516 , L0000517 , L0000518 , L0000519 ,  
L0000520 , L0000521 ,  
  
L0000522 , L0000523 , L0000524 , L0000525 , L0000526 , L0000527 ,  
L0000528 , L0000529 ,  
  
L0000530 , L0000531 , L0000532 , L0000533 , L0000534 , L0000535 ,  
L0000536 , L0000537 ,  
  
L0000538 , L0000539 , L0000540 , L0000541 , L0000542 ,

\*\*\* AERMOD - VERSION 21112 \*\*\* C:\Users\Michael Tirohn\Desktop\HRAS\14539 IE  
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\*\*\* MODELOPTs: RegDEFAULT CONC ELEV URBAN ADJ\_U\*

\*\*\* DISCRETE CARTESIAN RECEPTORS \*\*\*  
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)  
(METERS)

( 450497.4, 3769490.5,	301.2,	301.2,	0.0);	( 450800.7, 3769496.4,
301.2,	301.2,	0.0);		
( 450844.7, 3769482.7,	300.8,	300.8,	0.0);	( 450443.3, 3769464.3,
300.9,	300.9,	0.0);		
( 450501.5, 3769327.5,	299.2,	299.2,	0.0);	( 450500.6, 3769279.8,
298.7,	298.7,	0.0);		
( 450904.5, 3769273.6,	298.7,	298.7,	0.0);	( 450904.5, 3769256.7,
298.3,	298.3,	0.0);		
( 451224.7, 3769252.7,	296.5,	296.5,	0.0);	( 451223.3, 3769282.5,
297.0,	297.0,	0.0);		
( 451085.8, 3769299.7,	297.7,	297.7,	0.0);	( 451203.8, 3769285.4,
297.1,	297.1,	0.0);		
( 450660.4, 3769097.0,	298.3,	298.3,	0.0);	( 451202.0, 3769091.5,
294.3,	294.3,	0.0);		
( 450843.3, 3769093.9,	296.0,	296.0,	0.0);	( 451065.3, 3769091.5,
295.0,	295.0,	0.0);		
( 450488.4, 3769125.6,	297.5,	297.5,	0.0);	( 450365.0, 3769200.8,
297.4,	297.4,	0.0);		
( 449491.0, 3769987.6,	306.4,	306.4,	0.0);	( 451310.5, 3769494.7,
298.9,	298.9,	0.0);		
( 451571.6, 3769299.6,	300.9,	300.9,	0.0);	( 451412.2, 3769298.4,
297.6,	297.6,	0.0);		
( 451467.2, 3769186.0,	296.7,	296.7,	0.0);	( 449272.9, 3769950.8,
304.9,	304.9,	0.0);		
( 449463.3, 3769963.2,	305.9,	305.9,	0.0);	( 449418.9, 3769937.8,
305.4,	305.4,	0.0);		
( 449134.5, 3770074.5,	305.9,	305.9,	0.0);	( 448757.9, 3770086.1,
305.4,	305.4,	0.0);		
( 451123.0, 3769118.2,	295.2,	295.2,	0.0);	( 453236.6, 3767558.9,
279.1,	279.1,	0.0);		
( 453308.3, 3767535.1,	279.2,	279.2,	0.0);	( 453281.0, 3767662.3,
280.5,	280.5,	0.0);		
( 453784.7, 3767275.2,	274.3,	274.3,	0.0);	( 453764.7, 3767244.9,
273.9,	273.9,	0.0);		
( 448293.4, 3770898.6,	316.0,	316.0,	0.0);	( 448374.2, 3771008.4,
318.1,	318.1,	0.0);		
( 448407.8, 3771051.1,	318.9,	318.9,	0.0);	( 451567.7, 3769513.9,
304.1,	304.1,	0.0);		



FREE

Surface station no.: 3102  
Name: UNKNOWN  
UNKNOWN  
Year: 2012

Upper air station no.: 3190  
Name:  
Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS
WD	HT	REF	TA	HT													
12	01	01	1	01	-16.4	0.171	-9.000	-9.000	-999.	170.	32.3	0.09	1.12	1.00	2.03		
43.	7.9	285.9	2.0														
12	01	01	1	02	-18.8	0.194	-9.000	-9.000	-999.	205.	41.3	0.09	1.12	1.00	2.28		
34.	7.9	285.4	2.0														
12	01	01	1	03	-17.8	0.182	-9.000	-9.000	-999.	187.	36.5	0.09	1.12	1.00	2.15		
24.	7.9	282.0	2.0														
12	01	01	1	04	-9.4	0.128	-9.000	-9.000	-999.	110.	19.6	0.09	1.12	1.00	1.55		
41.	7.9	283.1	2.0														
12	01	01	1	05	-16.9	0.173	-9.000	-9.000	-999.	173.	33.0	0.09	1.12	1.00	2.05		
39.	7.9	280.4	2.0														
12	01	01	1	06	-8.0	0.117	-9.000	-9.000	-999.	97.	17.8	0.09	1.12	1.00	1.43		
21.	7.9	282.0	2.0														
12	01	01	1	07	-7.6	0.115	-9.000	-9.000	-999.	93.	17.4	0.09	1.12	1.00	1.40		
31.	7.9	282.5	2.0														
12	01	01	1	08	-13.6	0.184	-9.000	-9.000	-999.	190.	40.5	0.09	1.12	0.54	2.16		
34.	7.9	284.2	2.0														
12	01	01	1	09	28.4	0.126	0.300	0.011	33.	108.	-6.2	0.09	1.12	0.32	1.03		
29.	7.9	289.2	2.0														
12	01	01	1	10	79.8	0.133	0.607	0.010	99.	116.	-2.6	0.09	1.12	0.25	0.94		
173.	7.9	292.5	2.0														
12	01	01	1	11	115.8	0.137	0.932	0.006	246.	121.	-2.0	0.09	1.12	0.22	0.92		
172.	7.9	295.4	2.0														
12	01	01	1	12	133.7	0.139	1.197	0.005	453.	125.	-1.8	0.09	1.12	0.21	0.92		
146.	7.9	297.5	2.0														
12	01	01	1	13	133.2	0.160	1.354	0.005	657.	153.	-2.7	0.09	1.12	0.21	1.14		
117.	7.9	299.9	2.0														
12	01	01	1	14	113.5	0.159	1.454	0.005	955.	151.	-3.1	0.09	1.12	0.23	1.16		
285.	7.9	300.9	2.0														
12	01	01	1	15	76.2	0.166	1.350	0.005	1138.	163.	-5.3	0.09	1.12	0.26	1.33		
72.	7.9	302.0	2.0														
12	01	01	1	16	23.5	0.175	0.925	0.005	1183.	175.	-19.9	0.09	1.12	0.35	1.65		
107.	7.9	301.4	2.0														
12	01	01	1	17	-6.1	0.107	-9.000	-9.000	-999.	86.	18.0	0.09	1.12	0.63	1.31		
107.	7.9	298.1	2.0														
12	01	01	1	18	-11.1	0.141	-9.000	-9.000	-999.	127.	22.1	0.09	1.12	1.00	1.69		
86.	7.9	293.1	2.0														
12	01	01	1	19	-3.2	0.076	-9.000	-9.000	-999.	51.	11.8	0.09	1.12	1.00	0.91		
64.	7.9	292.0	2.0														
12	01	01	1	20	-2.3	0.066	-9.000	-9.000	-999.	41.	11.2	0.09	1.12	1.00	0.74		
73.	7.9	288.8	2.0														
12	01	01	1	21	-10.0	0.133	-9.000	-9.000	-999.	116.	20.5	0.09	1.12	1.00	1.60		
14.	7.9	288.1	2.0														
12	01	01	1	22	-19.4	0.201	-9.000	-9.000	-999.	216.	44.5	0.09	1.12	1.00	2.36		
22.	7.9	287.5	2.0														
12	01	01	1	23	-23.7	0.246	-9.000	-9.000	-999.	293.	66.5	0.09	1.12	1.00	2.86		
40.	7.9	287.0	2.0														
12	01	01	1	24	-12.3	0.147	-9.000	-9.000	-999.	139.	23.8	0.09	1.12	1.00	1.76		
40.	7.9	283.8	2.0														

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
12	01	01	01	7.9	1	43.	2.03	286.0	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

\*\*\* AERMOD - VERSION 21112 \*\*\* C:\Users\Michael Tirohn\Desktop\HRAs\14539 IE  
Distribution\14539 Ops \*\*\* 08/23/22

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\*\*\* MODELOPTs: RegDEFAULT CONC ELEV URBAN ADJ\_U\*

\*\*\* THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR  
SOURCE GROUP: ALL \*\*\*

INCLUDING SOURCE(S): L0000338 , L0000339 ,  
L0000340 , L0000341 , L0000342 ,  
L0000343 , L0000344 , L0000345 , L0000346 , L0000347 ,  
L0000348 , L0000349 , L0000350 ,  
L0000351 , L0000352 , L0000353 , L0000354 , L0000355 ,  
L0000356 , L0000357 , L0000358 ,  
L0000359 , L0000360 , L0000361 , L0000362 , L0000363 ,  
L0000364 , L0000365 , . . .

\*\*\* DISCRETE CARTESIAN RECEPTOR POINTS \*\*\*

\*\* CONC OF DPM IN \*\*  
MICROGRAMS/M\*\*3

X-COORD (M) (M)	Y-COORD (M) CONC	CONC	X-COORD (M)	Y-COORD
--------------------	---------------------	------	-------------	---------

450497.39	3769490.46	0.00050	450800.72	
3769496.41	0.00096			
450844.74	3769482.73	0.00110	450443.26	
3769464.29	0.00045			
450501.53	3769327.46	0.00126	450500.56	
3769279.81	0.00163			
450904.52	3769273.57	0.00417	450904.52	
3769256.68	0.00368			
451224.66	3769252.72	0.00132	451223.34	
3769282.54	0.00101			
451085.83	3769299.70	0.00132	451203.81	
3769285.44	0.00103			
450660.39	3769097.00	0.00113	451201.96	
3769091.46	0.00042			
450843.34	3769093.95	0.00086	451065.35	
3769091.46	0.00051			
450488.39	3769125.56	0.00087	450365.04	
3769200.78	0.00048			
449490.95	3769987.56	0.00003	451310.46	
3769494.69	0.00061			
451571.63	3769299.56	0.00077	451412.20	
3769298.37	0.00076			
451467.16	3769185.97	0.00080	449272.92	
3769950.83	0.00003			
449463.32	3769963.25	0.00003	449418.90	
3769937.78	0.00003			
449134.45	3770074.53	0.00002	448757.86	
3770086.14	0.00002			
451123.04	3769118.25	0.00054	453236.59	
3767558.94	0.00001			
453308.35	3767535.11	0.00001	453281.04	
3767662.29	0.00001			
453784.70	3767275.20	0.00001	453764.70	
3767244.94	0.00001			
448293.38	3770898.58	0.00001	448374.25	
3771008.42	0.00001			
448407.77	3771051.14	0.00001	451567.70	



\*\*\* MODELOPTs: RegDEFAULT CONC ELEV URBAN ADJ\_U\*

\*\*\* Message Summary : AERMOD Model Execution \*\*\*

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)  
A Total of 2 Warning Message(s)  
A Total of 1628 Informational Message(s)  
  
A Total of 43848 Hours Were Processed  
  
A Total of 1278 Calm Hours Identified  
  
A Total of 350 Missing Hours Identified ( 0.80 Percent)

\*\*\*\*\* FATAL ERROR MESSAGES \*\*\*\*\*  
\*\*\* NONE \*\*\*

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*  
ME W186 540 MEOPEN: THRESH\_1MIN 1-min ASOS wind speed threshold used 0.50  
ME W187 540 MEOPEN: ADJ\_U\* Option for Stable Low Winds used in AERMET

\*\*\*\*\*  
\*\*\* AERMOD Finishes Successfully \*\*\*  
\*\*\*\*\*

```

**
*****
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.2.1
** Lakes Environmental Software Inc.
** Date: 8/23/2022
** File: C:\Users\Michael Tirohn\Desktop\HRAs\14539 IE Distribution\14539 Ops\14539 Ops.ADI
**

```

```

*****
**
**
*****
** AERMOD Control Pathway
*****
**
**

```

```

CO STARTING
TITLEONE C:\Users\Michael Tirohn\Desktop\HRAs\14539 IE Distribution\14539 Ops
MODELOPT DFAULT CONC
AVERTIME ANNUAL
URBANOPT 2035210 San_Bernadino_County
POLLUTID DPM
RUNORNOT RUN
ERRORFIL "14539 Ops.err"

```

```
CO FINISHED
```

```

**
*****
** AERMOD Source Pathway
*****
**
**

```

```

SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** -----

```

```

** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC Idling
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 0.00004517
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 2
** 450584.276, 3769293.332, 298.63, 3.49, 4.00
** 450819.830, 3769300.271, 298.67, 3.49, 4.00
** -----

```

LOCATION	VOLUME	X Coord.	Y Coord.	Height
L0000338	450588.570	3769293.458	298.57	
L0000339	450597.156	3769293.711	298.58	
L0000340	450605.742	3769293.964	298.58	
L0000341	450614.328	3769294.217	298.60	
L0000342	450622.915	3769294.470	298.64	
L0000343	450631.501	3769294.723	298.67	
L0000344	450640.087	3769294.976	298.70	
L0000345	450648.673	3769295.229	298.70	
L0000346	450657.260	3769295.482	298.70	
L0000347	450665.846	3769295.735	298.70	
L0000348	450674.432	3769295.988	298.70	
L0000349	450683.019	3769296.241	298.70	
L0000350	450691.605	3769296.494	298.70	
L0000351	450700.191	3769296.746	298.70	
L0000352	450708.777	3769296.999	298.67	
L0000353	450717.364	3769297.252	298.65	
L0000354	450725.950	3769297.505	298.62	



LOCATION	VOLUME			
L0000355	450734.536	3769297.758	298.62	
L0000356	450743.122	3769298.011	298.62	
L0000357	450751.709	3769298.264	298.62	
L0000358	450760.295	3769298.517	298.62	
L0000359	450768.881	3769298.770	298.60	
L0000360	450777.468	3769299.023	298.59	
L0000361	450786.054	3769299.276	298.57	
L0000362	450794.640	3769299.529	298.57	
L0000363	450803.226	3769299.782	298.57	
L0000364	450811.813	3769300.035	298.58	

\*\* End of LINE VOLUME Source ID = SLINE1

\*\*

\*\* Line Source Represented by Adjacent Volume Sources

\*\* LINE VOLUME Source ID = SLINE2

\*\* DESCRSRC Onsite

\*\* PREFIX

\*\* Length of Side = 8.59

\*\* Configuration = Adjacent

\*\* Emission Rate = 0.00001482

\*\* Vertical Dimension = 6.99

\*\* SZINIT = 3.25

\*\* Nodes = 8

\*\* 450532.053, 3769244.030, 298.41, 3.49, 4.00

\*\* 450532.053, 3769261.560, 298.60, 3.49, 4.00

\*\* 450581.355, 3769261.925, 298.54, 3.49, 4.00

\*\* 450593.772, 3769274.707, 298.44, 3.49, 4.00

\*\* 450781.484, 3769278.359, 298.14, 3.49, 4.00

\*\* 450819.830, 3769274.342, 298.10, 3.49, 4.00

\*\* 450875.340, 3769273.976, 298.68, 3.49, 4.00

\*\* 450876.071, 3769245.856, 298.09, 3.49, 4.00

\*\*

LOCATION L0000365	VOLUME 450532.053	3769248.325	298.42	
LOCATION L0000366	VOLUME 450532.053	3769256.915	298.51	
LOCATION L0000367	VOLUME 450535.998	3769261.589	298.55	
LOCATION L0000368	VOLUME 450544.588	3769261.652	298.55	
LOCATION L0000369	VOLUME 450553.178	3769261.716	298.55	
LOCATION L0000370	VOLUME 450561.767	3769261.780	298.55	
LOCATION L0000371	VOLUME 450570.357	3769261.843	298.55	
LOCATION L0000372	VOLUME 450578.947	3769261.907	298.55	
LOCATION L0000373	VOLUME 450585.662	3769266.359	298.50	
LOCATION L0000374	VOLUME 450591.648	3769272.520	298.44	
LOCATION L0000375	VOLUME 450599.313	3769274.815	298.41	
LOCATION L0000376	VOLUME 450607.901	3769274.982	298.41	
LOCATION L0000377	VOLUME 450616.489	3769275.149	298.48	
LOCATION L0000378	VOLUME 450625.078	3769275.316	298.56	
LOCATION L0000379	VOLUME 450633.666	3769275.483	298.65	
LOCATION L0000380	VOLUME 450642.254	3769275.650	298.70	
LOCATION L0000381	VOLUME 450650.843	3769275.817	298.70	
LOCATION L0000382	VOLUME 450659.431	3769275.984	298.70	
LOCATION L0000383	VOLUME 450668.020	3769276.151	298.70	
LOCATION L0000384	VOLUME 450676.608	3769276.318	298.70	
LOCATION L0000385	VOLUME 450685.196	3769276.485	298.70	
LOCATION L0000386	VOLUME 450693.785	3769276.652	298.70	
LOCATION L0000387	VOLUME 450702.373	3769276.820	298.68	
LOCATION L0000388	VOLUME 450710.961	3769276.987	298.59	
LOCATION L0000389	VOLUME 450719.550	3769277.154	298.51	
LOCATION L0000390	VOLUME 450728.138	3769277.321	298.42	
LOCATION L0000391	VOLUME 450736.727	3769277.488	298.41	
LOCATION L0000392	VOLUME 450745.315	3769277.655	298.41	
LOCATION L0000393	VOLUME 450753.903	3769277.822	298.41	
LOCATION L0000394	VOLUME 450762.492	3769277.989	298.39	
LOCATION L0000395	VOLUME 450771.080	3769278.156	298.31	
LOCATION L0000396	VOLUME 450779.668	3769278.323	298.23	
LOCATION L0000397	VOLUME 450788.221	3769277.653	298.13	
LOCATION L0000398	VOLUME 450796.764	3769276.758	298.10	
LOCATION L0000399	VOLUME 450805.308	3769275.863	298.10	

LOCATION	VOLUME			
L0000400	450813.851	3769274.968	298.11	
L0000401	450822.408	3769274.325	298.14	
L0000402	450830.998	3769274.268	298.22	
L0000403	450839.588	3769274.212	298.29	
L0000404	450848.178	3769274.155	298.37	
L0000405	450856.767	3769274.099	298.44	
L0000406	450865.357	3769274.042	298.52	
L0000407	450873.947	3769273.985	298.60	
L0000408	450875.527	3769266.782	298.48	
L0000409	450875.750	3769258.195	298.32	
L0000410	450875.973	3769249.608	298.16	

\*\* End of LINE VOLUME Source ID = SLINE2

\*\* -----

\*\* Line Source Represented by Adjacent Volume Sources

\*\* LINE VOLUME Source ID = SLINE3

\*\* DESCRSRC Offsite

\*\* PREFIX

\*\* Length of Side = 14.00

\*\* Configuration = Adjacent

\*\* Emission Rate = 0.00002434

\*\* Vertical Dimension = 6.99

\*\* SZINIT = 3.25

\*\* Nodes = 14

\*\* 450531.488, 3769231.780, 298.42, 3.49, 6.51

\*\* 451458.160, 3769224.475, 296.68, 3.49, 6.51

\*\* 451477.884, 3769223.014, 297.16, 3.49, 6.51

\*\* 451508.566, 3769211.326, 297.73, 3.49, 6.51

\*\* 451579.062, 3769183.931, 297.18, 3.49, 6.51

\*\* 451600.612, 3769178.452, 297.61, 3.49, 6.51

\*\* 451630.198, 3769176.626, 297.58, 3.49, 6.51

\*\* 451633.851, 3769205.116, 298.46, 3.49, 6.51

\*\* 451632.755, 3769377.520, 307.01, 3.49, 6.51

\*\* 451633.851, 3769443.268, 304.95, 3.49, 6.51

\*\* 451634.581, 3769487.099, 305.91, 3.49, 6.51

\*\* 451637.869, 3769611.288, 307.59, 3.49, 6.51

\*\* 451637.869, 3769784.058, 305.17, 3.49, 6.51

\*\* 451642.335, 3769918.705, 307.93, 3.49, 6.51

\*\* -----

LOCATION L0000411	VOLUME 450538.488	3769231.725	298.40	
LOCATION L0000412	VOLUME 450552.488	3769231.615	298.43	
LOCATION L0000413	VOLUME 450566.487	3769231.505	298.57	
LOCATION L0000414	VOLUME 450580.487	3769231.394	298.70	
LOCATION L0000415	VOLUME 450594.486	3769231.284	298.70	
LOCATION L0000416	VOLUME 450608.486	3769231.173	298.70	
LOCATION L0000417	VOLUME 450622.485	3769231.063	298.70	
LOCATION L0000418	VOLUME 450636.485	3769230.953	298.70	
LOCATION L0000419	VOLUME 450650.485	3769230.842	298.70	
LOCATION L0000420	VOLUME 450664.484	3769230.732	298.70	
LOCATION L0000421	VOLUME 450678.484	3769230.622	298.61	
LOCATION L0000422	VOLUME 450692.483	3769230.511	298.47	
LOCATION L0000423	VOLUME 450706.483	3769230.401	298.40	
LOCATION L0000424	VOLUME 450720.482	3769230.291	298.40	
LOCATION L0000425	VOLUME 450734.482	3769230.180	298.40	
LOCATION L0000426	VOLUME 450748.481	3769230.070	298.40	
LOCATION L0000427	VOLUME 450762.481	3769229.959	298.40	
LOCATION L0000428	VOLUME 450776.481	3769229.849	298.40	
LOCATION L0000429	VOLUME 450790.480	3769229.739	298.40	
LOCATION L0000430	VOLUME 450804.480	3769229.628	298.40	
LOCATION L0000431	VOLUME 450818.479	3769229.518	298.40	
LOCATION L0000432	VOLUME 450832.479	3769229.408	298.34	
LOCATION L0000433	VOLUME 450846.478	3769229.297	298.28	
LOCATION L0000434	VOLUME 450860.478	3769229.187	298.08	
LOCATION L0000435	VOLUME 450874.478	3769229.077	297.83	
LOCATION L0000436	VOLUME 450888.477	3769228.966	297.74	
LOCATION L0000437	VOLUME 450902.477	3769228.856	297.74	
LOCATION L0000438	VOLUME 450916.476	3769228.745	297.70	

LOCATION L0000439	VOLUME	450930.476	3769228.635	297.61
LOCATION L0000440	VOLUME	450944.475	3769228.525	297.50
LOCATION L0000441	VOLUME	450958.475	3769228.414	297.36
LOCATION L0000442	VOLUME	450972.475	3769228.304	297.23
LOCATION L0000443	VOLUME	450986.474	3769228.194	297.17
LOCATION L0000444	VOLUME	451000.474	3769228.083	297.11
LOCATION L0000445	VOLUME	451014.473	3769227.973	297.05
LOCATION L0000446	VOLUME	451028.473	3769227.863	297.00
LOCATION L0000447	VOLUME	451042.472	3769227.752	296.91
LOCATION L0000448	VOLUME	451056.472	3769227.642	296.82
LOCATION L0000449	VOLUME	451070.471	3769227.531	296.76
LOCATION L0000450	VOLUME	451084.471	3769227.421	296.70
LOCATION L0000451	VOLUME	451098.471	3769227.311	296.68
LOCATION L0000452	VOLUME	451112.470	3769227.200	296.68
LOCATION L0000453	VOLUME	451126.470	3769227.090	296.63
LOCATION L0000454	VOLUME	451140.469	3769226.980	296.54
LOCATION L0000455	VOLUME	451154.469	3769226.869	296.46
LOCATION L0000456	VOLUME	451168.468	3769226.759	296.41
LOCATION L0000457	VOLUME	451182.468	3769226.649	296.37
LOCATION L0000458	VOLUME	451196.468	3769226.538	296.37
LOCATION L0000459	VOLUME	451210.467	3769226.428	296.36
LOCATION L0000460	VOLUME	451224.467	3769226.317	296.32
LOCATION L0000461	VOLUME	451238.466	3769226.207	296.27
LOCATION L0000462	VOLUME	451252.466	3769226.097	296.18
LOCATION L0000463	VOLUME	451266.465	3769225.986	296.08
LOCATION L0000464	VOLUME	451280.465	3769225.876	295.95
LOCATION L0000465	VOLUME	451294.465	3769225.766	295.80
LOCATION L0000466	VOLUME	451308.464	3769225.655	295.66
LOCATION L0000467	VOLUME	451322.464	3769225.545	295.52
LOCATION L0000468	VOLUME	451336.463	3769225.435	295.51
LOCATION L0000469	VOLUME	451350.463	3769225.324	295.66
LOCATION L0000470	VOLUME	451364.462	3769225.214	295.85
LOCATION L0000471	VOLUME	451378.462	3769225.103	296.13
LOCATION L0000472	VOLUME	451392.461	3769224.993	296.37
LOCATION L0000473	VOLUME	451406.461	3769224.883	296.48
LOCATION L0000474	VOLUME	451420.461	3769224.772	296.58
LOCATION L0000475	VOLUME	451434.460	3769224.662	296.65
LOCATION L0000476	VOLUME	451448.460	3769224.552	296.73
LOCATION L0000477	VOLUME	451462.448	3769224.158	296.96
LOCATION L0000478	VOLUME	451476.409	3769223.123	297.19
LOCATION L0000479	VOLUME	451489.585	3769218.556	297.41
LOCATION L0000480	VOLUME	451502.668	3769213.573	297.56
LOCATION L0000481	VOLUME	451515.732	3769208.541	297.47
LOCATION L0000482	VOLUME	451528.782	3769203.470	297.27
LOCATION L0000483	VOLUME	451541.831	3769198.399	297.11
LOCATION L0000484	VOLUME	451554.880	3769193.328	297.17
LOCATION L0000485	VOLUME	451567.930	3769188.257	297.23
LOCATION L0000486	VOLUME	451581.055	3769183.424	297.30
LOCATION L0000487	VOLUME	451594.624	3769179.975	297.39
LOCATION L0000488	VOLUME	451608.418	3769177.970	297.39
LOCATION L0000489	VOLUME	451622.392	3769177.108	297.39
LOCATION L0000490	VOLUME	451630.984	3769182.754	297.63
LOCATION L0000491	VOLUME	451632.764	3769196.640	298.07
LOCATION L0000492	VOLUME	451633.816	3769210.571	298.48
LOCATION L0000493	VOLUME	451633.727	3769224.571	298.95
LOCATION L0000494	VOLUME	451633.638	3769238.570	299.44
LOCATION L0000495	VOLUME	451633.549	3769252.570	299.94
LOCATION L0000496	VOLUME	451633.460	3769266.570	300.44
LOCATION L0000497	VOLUME	451633.371	3769280.570	301.02
LOCATION L0000498	VOLUME	451633.282	3769294.569	301.79
LOCATION L0000499	VOLUME	451633.193	3769308.569	302.60
LOCATION L0000500	VOLUME	451633.104	3769322.569	303.59
LOCATION L0000501	VOLUME	451633.015	3769336.568	304.59
LOCATION L0000502	VOLUME	451632.926	3769350.568	305.92
LOCATION L0000503	VOLUME	451632.837	3769364.568	307.24
LOCATION L0000504	VOLUME	451632.773	3769378.567	307.33

LOCATION	VOLUME				
LOCATION L0000505	VOLUME	451633.006	3769392.566	307.21	
LOCATION L0000506	VOLUME	451633.239	3769406.564	306.54	
LOCATION L0000507	VOLUME	451633.472	3769420.562	305.68	
LOCATION L0000508	VOLUME	451633.706	3769434.560	305.17	
LOCATION L0000509	VOLUME	451633.939	3769448.558	304.90	
LOCATION L0000510	VOLUME	451634.172	3769462.556	304.97	
LOCATION L0000511	VOLUME	451634.406	3769476.554	305.44	
LOCATION L0000512	VOLUME	451634.673	3769490.551	305.91	
LOCATION L0000513	VOLUME	451635.043	3769504.546	306.38	
LOCATION L0000514	VOLUME	451635.414	3769518.541	306.72	
LOCATION L0000515	VOLUME	451635.784	3769532.536	306.47	
LOCATION L0000516	VOLUME	451636.155	3769546.532	306.23	
LOCATION L0000517	VOLUME	451636.525	3769560.527	306.34	
LOCATION L0000518	VOLUME	451636.896	3769574.522	306.46	
LOCATION L0000519	VOLUME	451637.266	3769588.517	306.97	
LOCATION L0000520	VOLUME	451637.636	3769602.512	307.53	
LOCATION L0000521	VOLUME	451637.869	3769616.509	307.71	
LOCATION L0000522	VOLUME	451637.869	3769630.509	307.75	
LOCATION L0000523	VOLUME	451637.869	3769644.509	307.23	
LOCATION L0000524	VOLUME	451637.869	3769658.509	306.32	
LOCATION L0000525	VOLUME	451637.869	3769672.509	305.61	
LOCATION L0000526	VOLUME	451637.869	3769686.509	305.13	
LOCATION L0000527	VOLUME	451637.869	3769700.509	304.74	
LOCATION L0000528	VOLUME	451637.869	3769714.509	304.53	
LOCATION L0000529	VOLUME	451637.869	3769728.509	304.39	
LOCATION L0000530	VOLUME	451637.869	3769742.509	304.60	
LOCATION L0000531	VOLUME	451637.869	3769756.509	304.80	
LOCATION L0000532	VOLUME	451637.869	3769770.509	305.06	
LOCATION L0000533	VOLUME	451637.884	3769784.509	305.33	
LOCATION L0000534	VOLUME	451638.348	3769798.501	306.17	
LOCATION L0000535	VOLUME	451638.812	3769812.493	307.08	
LOCATION L0000536	VOLUME	451639.276	3769826.486	307.41	
LOCATION L0000537	VOLUME	451639.740	3769840.478	307.50	
LOCATION L0000538	VOLUME	451640.205	3769854.470	307.84	
LOCATION L0000539	VOLUME	451640.669	3769868.462	308.36	
LOCATION L0000540	VOLUME	451641.133	3769882.455	308.51	
LOCATION L0000541	VOLUME	451641.597	3769896.447	308.19	
LOCATION L0000542	VOLUME	451642.061	3769910.439	307.84	

\*\* End of LINE VOLUME Source ID = SLINE3

\*\* Source Parameters \*\*

\*\* LINE VOLUME Source ID = SLINE1

SRCPARAM	VOLUME				
SRCPARAM L0000338	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000339	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000340	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000341	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000342	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000343	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000344	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000345	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000346	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000347	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000348	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000349	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000350	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000351	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000352	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000353	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000354	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000355	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000356	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000357	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000358	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000359	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000360	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000361	0.000001673	3.49	4.00	3.25	
SRCPARAM L0000362	0.000001673	3.49	4.00	3.25	





SRCPARAM L0000491	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000492	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000493	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000494	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000495	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000496	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000497	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000498	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000499	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000500	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000501	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000502	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000503	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000504	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000505	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000506	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000507	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000508	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000509	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000510	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000511	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000512	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000513	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000514	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000515	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000516	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000517	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000518	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000519	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000520	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000521	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000522	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000523	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000524	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000525	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000526	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000527	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000528	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000529	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000530	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000531	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000532	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000533	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000534	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000535	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000536	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000537	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000538	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000539	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000540	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000541	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000542	0.0000001844	3.49	6.51	3.25

\*\* -----

URBANSRC ALL  
SRCGROUP ALL

SO FINISHED

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\*\*\*\*\*

\*\* AERMOD Receptor Pathway

\*\*\*\*\*

\*\*

\*\*

RE STARTING  
INCLUDED "14539 Ops.rou"

RE FINISHED

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```
*****
** AERMOD Meteorology Pathway
*****
**
**
ME STARTING
  SURFFILE KONT_V9_ADJU\KONT_v9.SFC
  PROFFILE KONT_V9_ADJU\KONT_v9.PFL
  SURFDATA 3102 2012
  UAIRDATA 3190 2012
  PROFBASE 289.0 METERS
ME FINISHED
**
*****
** AERMOD Output Pathway
*****
**
**
OU STARTING
** Auto-Generated Plotfiles
  PLOTFILE ANNUAL ALL "14539 Ops.AD\AN00GALL.PLT" 31
  SUMMFILE "14539 Ops.sum"
OU FINISHED
**
*****
** Project Parameters
*****
** PROJCTN CoordinateSystemUTM
** DESCPTN UTM: Universal Transverse Mercator
** DATUM North American Datum 1983
** DTMRGN CONUS
** UNITS m
** ZONE 11
** ZONEINX 0
**
```



```

** Lakes Environmental AERMOD MPI
**
*****
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.2.1
** Lakes Environmental Software Inc.
** Date: 8/23/2022
** File: C:\Users\Michael Tirohn\Desktop\HRAs\14539 IE Distribution\14539 Ops\14539 Ops.ADI
**

```

```

*****
**
**
*****
** AERMOD Control Pathway
*****
**
**

```

```

CO STARTING
TITLEONE C:\Users\Michael Tirohn\Desktop\HRAs\14539 IE Distribution\14539 Ops
MODELOPT DFAULT CONC
AVERTIME ANNUAL
URBANOPT 2035210 San_Bernadino_County
POLLUTID DPM
RUNORNOT RUN
ERRORFIL "14539 Ops.err"

```

```

CO FINISHED
**
*****

```

```

** AERMOD Source Pathway
*****
**
**

```

```

SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** -----
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC Idling
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 0.00004517
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 2
** 450584.276, 3769293.332, 298.63, 3.49, 4.00
** 450819.830, 3769300.271, 298.67, 3.49, 4.00
** -----

```

LOCATION	VOLUME	X Coord.	Y Coord.	Height
L0000338	450588.570	3769293.458	298.57	
L0000339	450597.156	3769293.711	298.58	
L0000340	450605.742	3769293.964	298.58	
L0000341	450614.328	3769294.217	298.60	
L0000342	450622.915	3769294.470	298.64	
L0000343	450631.501	3769294.723	298.67	
L0000344	450640.087	3769294.976	298.70	
L0000345	450648.673	3769295.229	298.70	
L0000346	450657.260	3769295.482	298.70	
L0000347	450665.846	3769295.735	298.70	
L0000348	450674.432	3769295.988	298.70	
L0000349	450683.019	3769296.241	298.70	
L0000350	450691.605	3769296.494	298.70	
L0000351	450700.191	3769296.746	298.70	
L0000352	450708.777	3769296.999	298.67	
L0000353	450717.364	3769297.252	298.65	

LOCATION	VOLUME			
L0000354	450725.950	3769297.505	298.62	
L0000355	450734.536	3769297.758	298.62	
L0000356	450743.122	3769298.011	298.62	
L0000357	450751.709	3769298.264	298.62	
L0000358	450760.295	3769298.517	298.62	
L0000359	450768.881	3769298.770	298.60	
L0000360	450777.468	3769299.023	298.59	
L0000361	450786.054	3769299.276	298.57	
L0000362	450794.640	3769299.529	298.57	
L0000363	450803.226	3769299.782	298.57	
L0000364	450811.813	3769300.035	298.58	

\*\* End of LINE VOLUME Source ID = SLINE1

\*\* -----

\*\* Line Source Represented by Adjacent Volume Sources

\*\* LINE VOLUME Source ID = SLINE2

\*\* DESCRSRC Onsite

\*\* PREFIX

\*\* Length of Side = 8.59

\*\* Configuration = Adjacent

\*\* Emission Rate = 0.00001482

\*\* Vertical Dimension = 6.99

\*\* SZINIT = 3.25

\*\* Nodes = 8

\*\* 450532.053, 3769244.030, 298.41, 3.49, 4.00

\*\* 450532.053, 3769261.560, 298.60, 3.49, 4.00

\*\* 450581.355, 3769261.925, 298.54, 3.49, 4.00

\*\* 450593.772, 3769274.707, 298.44, 3.49, 4.00

\*\* 450781.484, 3769278.359, 298.14, 3.49, 4.00

\*\* 450819.830, 3769274.342, 298.10, 3.49, 4.00

\*\* 450875.340, 3769273.976, 298.68, 3.49, 4.00

\*\* 450876.071, 3769245.856, 298.09, 3.49, 4.00

\*\* -----

L0000365	450532.053	3769248.325	298.42	
L0000366	450532.053	3769256.915	298.51	
L0000367	450535.998	3769261.589	298.55	
L0000368	450544.588	3769261.652	298.55	
L0000369	450553.178	3769261.716	298.55	
L0000370	450561.767	3769261.780	298.55	
L0000371	450570.357	3769261.843	298.55	
L0000372	450578.947	3769261.907	298.55	
L0000373	450585.662	3769266.359	298.50	
L0000374	450591.648	3769272.520	298.44	
L0000375	450599.313	3769274.815	298.41	
L0000376	450607.901	3769274.982	298.41	
L0000377	450616.489	3769275.149	298.48	
L0000378	450625.078	3769275.316	298.56	
L0000379	450633.666	3769275.483	298.65	
L0000380	450642.254	3769275.650	298.70	
L0000381	450650.843	3769275.817	298.70	
L0000382	450659.431	3769275.984	298.70	
L0000383	450668.020	3769276.151	298.70	
L0000384	450676.608	3769276.318	298.70	
L0000385	450685.196	3769276.485	298.70	
L0000386	450693.785	3769276.652	298.70	
L0000387	450702.373	3769276.820	298.68	
L0000388	450710.961	3769276.987	298.59	
L0000389	450719.550	3769277.154	298.51	
L0000390	450728.138	3769277.321	298.42	
L0000391	450736.727	3769277.488	298.41	
L0000392	450745.315	3769277.655	298.41	
L0000393	450753.903	3769277.822	298.41	
L0000394	450762.492	3769277.989	298.39	
L0000395	450771.080	3769278.156	298.31	
L0000396	450779.668	3769278.323	298.23	
L0000397	450788.221	3769277.653	298.13	
L0000398	450796.764	3769276.758	298.10	

LOCATION	VOLUME			
L0000399	450805.308	3769275.863	298.10	
L0000400	450813.851	3769274.968	298.11	
L0000401	450822.408	3769274.325	298.14	
L0000402	450830.998	3769274.268	298.22	
L0000403	450839.588	3769274.212	298.29	
L0000404	450848.178	3769274.155	298.37	
L0000405	450856.767	3769274.099	298.44	
L0000406	450865.357	3769274.042	298.52	
L0000407	450873.947	3769273.985	298.60	
L0000408	450875.527	3769266.782	298.48	
L0000409	450875.750	3769258.195	298.32	
L0000410	450875.973	3769249.608	298.16	

\*\* End of LINE VOLUME Source ID = SLINE2

\*\* -----

\*\* Line Source Represented by Adjacent Volume Sources

\*\* LINE VOLUME Source ID = SLINE3

\*\* DESCRSRC Offsite

\*\* PREFIX

\*\* Length of Side = 14.00

\*\* Configuration = Adjacent

\*\* Emission Rate = 0.00002434

\*\* Vertical Dimension = 6.99

\*\* SZINIT = 3.25

\*\* Nodes = 14

\*\* 450531.488, 3769231.780, 298.42, 3.49, 6.51

\*\* 451458.160, 3769224.475, 296.68, 3.49, 6.51

\*\* 451477.884, 3769223.014, 297.16, 3.49, 6.51

\*\* 451508.566, 3769211.326, 297.73, 3.49, 6.51

\*\* 451579.062, 3769183.931, 297.18, 3.49, 6.51

\*\* 451600.612, 3769178.452, 297.61, 3.49, 6.51

\*\* 451630.198, 3769176.626, 297.58, 3.49, 6.51

\*\* 451633.851, 3769205.116, 298.46, 3.49, 6.51

\*\* 451632.755, 3769377.520, 307.01, 3.49, 6.51

\*\* 451633.851, 3769443.268, 304.95, 3.49, 6.51

\*\* 451634.581, 3769487.099, 305.91, 3.49, 6.51

\*\* 451637.869, 3769611.288, 307.59, 3.49, 6.51

\*\* 451637.869, 3769784.058, 305.17, 3.49, 6.51

\*\* 451642.335, 3769918.705, 307.93, 3.49, 6.51

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L0000411	450538.488	3769231.725	298.40	
L0000412	450552.488	3769231.615	298.43	
L0000413	450566.487	3769231.505	298.57	
L0000414	450580.487	3769231.394	298.70	
L0000415	450594.486	3769231.284	298.70	
L0000416	450608.486	3769231.173	298.70	
L0000417	450622.485	3769231.063	298.70	
L0000418	450636.485	3769230.953	298.70	
L0000419	450650.485	3769230.842	298.70	
L0000420	450664.484	3769230.732	298.70	
L0000421	450678.484	3769230.622	298.61	
L0000422	450692.483	3769230.511	298.47	
L0000423	450706.483	3769230.401	298.40	
L0000424	450720.482	3769230.291	298.40	
L0000425	450734.482	3769230.180	298.40	
L0000426	450748.481	3769230.070	298.40	
L0000427	450762.481	3769229.959	298.40	
L0000428	450776.481	3769229.849	298.40	
L0000429	450790.480	3769229.739	298.40	
L0000430	450804.480	3769229.628	298.40	
L0000431	450818.479	3769229.518	298.40	
L0000432	450832.479	3769229.408	298.34	
L0000433	450846.478	3769229.297	298.28	
L0000434	450860.478	3769229.187	298.08	
L0000435	450874.478	3769229.077	297.83	
L0000436	450888.477	3769228.966	297.74	
L0000437	450902.477	3769228.856	297.74	

LOCATION L0000438	VOLUME	450916.476	3769228.745	297.70
LOCATION L0000439	VOLUME	450930.476	3769228.635	297.61
LOCATION L0000440	VOLUME	450944.475	3769228.525	297.50
LOCATION L0000441	VOLUME	450958.475	3769228.414	297.36
LOCATION L0000442	VOLUME	450972.475	3769228.304	297.23
LOCATION L0000443	VOLUME	450986.474	3769228.194	297.17
LOCATION L0000444	VOLUME	451000.474	3769228.083	297.11
LOCATION L0000445	VOLUME	451014.473	3769227.973	297.05
LOCATION L0000446	VOLUME	451028.473	3769227.863	297.00
LOCATION L0000447	VOLUME	451042.472	3769227.752	296.91
LOCATION L0000448	VOLUME	451056.472	3769227.642	296.82
LOCATION L0000449	VOLUME	451070.471	3769227.531	296.76
LOCATION L0000450	VOLUME	451084.471	3769227.421	296.70
LOCATION L0000451	VOLUME	451098.471	3769227.311	296.68
LOCATION L0000452	VOLUME	451112.470	3769227.200	296.68
LOCATION L0000453	VOLUME	451126.470	3769227.090	296.63
LOCATION L0000454	VOLUME	451140.469	3769226.980	296.54
LOCATION L0000455	VOLUME	451154.469	3769226.869	296.46
LOCATION L0000456	VOLUME	451168.468	3769226.759	296.41
LOCATION L0000457	VOLUME	451182.468	3769226.649	296.37
LOCATION L0000458	VOLUME	451196.468	3769226.538	296.37
LOCATION L0000459	VOLUME	451210.467	3769226.428	296.36
LOCATION L0000460	VOLUME	451224.467	3769226.317	296.32
LOCATION L0000461	VOLUME	451238.466	3769226.207	296.27
LOCATION L0000462	VOLUME	451252.466	3769226.097	296.18
LOCATION L0000463	VOLUME	451266.465	3769225.986	296.08
LOCATION L0000464	VOLUME	451280.465	3769225.876	295.95
LOCATION L0000465	VOLUME	451294.465	3769225.766	295.80
LOCATION L0000466	VOLUME	451308.464	3769225.655	295.66
LOCATION L0000467	VOLUME	451322.464	3769225.545	295.52
LOCATION L0000468	VOLUME	451336.463	3769225.435	295.51
LOCATION L0000469	VOLUME	451350.463	3769225.324	295.66
LOCATION L0000470	VOLUME	451364.462	3769225.214	295.85
LOCATION L0000471	VOLUME	451378.462	3769225.103	296.13
LOCATION L0000472	VOLUME	451392.461	3769224.993	296.37
LOCATION L0000473	VOLUME	451406.461	3769224.883	296.48
LOCATION L0000474	VOLUME	451420.461	3769224.772	296.58
LOCATION L0000475	VOLUME	451434.460	3769224.662	296.65
LOCATION L0000476	VOLUME	451448.460	3769224.552	296.73
LOCATION L0000477	VOLUME	451462.448	3769224.158	296.96
LOCATION L0000478	VOLUME	451476.409	3769223.123	297.19
LOCATION L0000479	VOLUME	451489.585	3769218.556	297.41
LOCATION L0000480	VOLUME	451502.668	3769213.573	297.56
LOCATION L0000481	VOLUME	451515.732	3769208.541	297.47
LOCATION L0000482	VOLUME	451528.782	3769203.470	297.27
LOCATION L0000483	VOLUME	451541.831	3769198.399	297.11
LOCATION L0000484	VOLUME	451554.880	3769193.328	297.17
LOCATION L0000485	VOLUME	451567.930	3769188.257	297.23
LOCATION L0000486	VOLUME	451581.055	3769183.424	297.30
LOCATION L0000487	VOLUME	451594.624	3769179.975	297.39
LOCATION L0000488	VOLUME	451608.418	3769177.970	297.39
LOCATION L0000489	VOLUME	451622.392	3769177.108	297.39
LOCATION L0000490	VOLUME	451630.984	3769182.754	297.63
LOCATION L0000491	VOLUME	451632.764	3769196.640	298.07
LOCATION L0000492	VOLUME	451633.816	3769210.571	298.48
LOCATION L0000493	VOLUME	451633.727	3769224.571	298.95
LOCATION L0000494	VOLUME	451633.638	3769238.570	299.44
LOCATION L0000495	VOLUME	451633.549	3769252.570	299.94
LOCATION L0000496	VOLUME	451633.460	3769266.570	300.44
LOCATION L0000497	VOLUME	451633.371	3769280.570	301.02
LOCATION L0000498	VOLUME	451633.282	3769294.569	301.79
LOCATION L0000499	VOLUME	451633.193	3769308.569	302.60
LOCATION L0000500	VOLUME	451633.104	3769322.569	303.59
LOCATION L0000501	VOLUME	451633.015	3769336.568	304.59
LOCATION L0000502	VOLUME	451632.926	3769350.568	305.92
LOCATION L0000503	VOLUME	451632.837	3769364.568	307.24

LOCATION	VOLUME			
LOCATION L0000504	VOLUME	451632.773	3769378.567	307.33
LOCATION L0000505	VOLUME	451633.006	3769392.566	307.21
LOCATION L0000506	VOLUME	451633.239	3769406.564	306.54
LOCATION L0000507	VOLUME	451633.472	3769420.562	305.68
LOCATION L0000508	VOLUME	451633.706	3769434.560	305.17
LOCATION L0000509	VOLUME	451633.939	3769448.558	304.90
LOCATION L0000510	VOLUME	451634.172	3769462.556	304.97
LOCATION L0000511	VOLUME	451634.406	3769476.554	305.44
LOCATION L0000512	VOLUME	451634.673	3769490.551	305.91
LOCATION L0000513	VOLUME	451635.043	3769504.546	306.38
LOCATION L0000514	VOLUME	451635.414	3769518.541	306.72
LOCATION L0000515	VOLUME	451635.784	3769532.536	306.47
LOCATION L0000516	VOLUME	451636.155	3769546.532	306.23
LOCATION L0000517	VOLUME	451636.525	3769560.527	306.34
LOCATION L0000518	VOLUME	451636.896	3769574.522	306.46
LOCATION L0000519	VOLUME	451637.266	3769588.517	306.97
LOCATION L0000520	VOLUME	451637.636	3769602.512	307.53
LOCATION L0000521	VOLUME	451637.869	3769616.509	307.71
LOCATION L0000522	VOLUME	451637.869	3769630.509	307.75
LOCATION L0000523	VOLUME	451637.869	3769644.509	307.23
LOCATION L0000524	VOLUME	451637.869	3769658.509	306.32
LOCATION L0000525	VOLUME	451637.869	3769672.509	305.61
LOCATION L0000526	VOLUME	451637.869	3769686.509	305.13
LOCATION L0000527	VOLUME	451637.869	3769700.509	304.74
LOCATION L0000528	VOLUME	451637.869	3769714.509	304.53
LOCATION L0000529	VOLUME	451637.869	3769728.509	304.39
LOCATION L0000530	VOLUME	451637.869	3769742.509	304.60
LOCATION L0000531	VOLUME	451637.869	3769756.509	304.80
LOCATION L0000532	VOLUME	451637.869	3769770.509	305.06
LOCATION L0000533	VOLUME	451637.884	3769784.509	305.33
LOCATION L0000534	VOLUME	451638.348	3769798.501	306.17
LOCATION L0000535	VOLUME	451638.812	3769812.493	307.08
LOCATION L0000536	VOLUME	451639.276	3769826.486	307.41
LOCATION L0000537	VOLUME	451639.740	3769840.478	307.50
LOCATION L0000538	VOLUME	451640.205	3769854.470	307.84
LOCATION L0000539	VOLUME	451640.669	3769868.462	308.36
LOCATION L0000540	VOLUME	451641.133	3769882.455	308.51
LOCATION L0000541	VOLUME	451641.597	3769896.447	308.19
LOCATION L0000542	VOLUME	451642.061	3769910.439	307.84

\*\* End of LINE VOLUME Source ID = SLINE3

\*\* Source Parameters \*\*

\*\* LINE VOLUME Source ID = SLINE1

SRCPARAM L0000338	0.000001673	3.49	4.00	3.25
SRCPARAM L0000339	0.000001673	3.49	4.00	3.25
SRCPARAM L0000340	0.000001673	3.49	4.00	3.25
SRCPARAM L0000341	0.000001673	3.49	4.00	3.25
SRCPARAM L0000342	0.000001673	3.49	4.00	3.25
SRCPARAM L0000343	0.000001673	3.49	4.00	3.25
SRCPARAM L0000344	0.000001673	3.49	4.00	3.25
SRCPARAM L0000345	0.000001673	3.49	4.00	3.25
SRCPARAM L0000346	0.000001673	3.49	4.00	3.25
SRCPARAM L0000347	0.000001673	3.49	4.00	3.25
SRCPARAM L0000348	0.000001673	3.49	4.00	3.25
SRCPARAM L0000349	0.000001673	3.49	4.00	3.25
SRCPARAM L0000350	0.000001673	3.49	4.00	3.25
SRCPARAM L0000351	0.000001673	3.49	4.00	3.25
SRCPARAM L0000352	0.000001673	3.49	4.00	3.25
SRCPARAM L0000353	0.000001673	3.49	4.00	3.25
SRCPARAM L0000354	0.000001673	3.49	4.00	3.25
SRCPARAM L0000355	0.000001673	3.49	4.00	3.25
SRCPARAM L0000356	0.000001673	3.49	4.00	3.25
SRCPARAM L0000357	0.000001673	3.49	4.00	3.25
SRCPARAM L0000358	0.000001673	3.49	4.00	3.25
SRCPARAM L0000359	0.000001673	3.49	4.00	3.25
SRCPARAM L0000360	0.000001673	3.49	4.00	3.25
SRCPARAM L0000361	0.000001673	3.49	4.00	3.25





SRCPARAM L0000490	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000491	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000492	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000493	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000494	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000495	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000496	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000497	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000498	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000499	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000500	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000501	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000502	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000503	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000504	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000505	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000506	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000507	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000508	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000509	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000510	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000511	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000512	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000513	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000514	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000515	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000516	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000517	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000518	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000519	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000520	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000521	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000522	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000523	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000524	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000525	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000526	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000527	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000528	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000529	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000530	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000531	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000532	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000533	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000534	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000535	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000536	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000537	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000538	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000539	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000540	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000541	0.0000001844	3.49	6.51	3.25
SRCPARAM L0000542	0.0000001844	3.49	6.51	3.25

\*\* -----

URBANSRC ALL  
SRCGROUP ALL

SO FINISHED

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\*\* AERMOD Receptor Pathway  
\*\*\*\*\*

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\*\*

RE STARTING  
INCLUDED "14539 Ops.rou"

RE FINISHED



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\*\*\*\*\*  
\*\* AERMOD Meteorology Pathway  
\*\*\*\*\*  
\*\*  
\*\*  
ME STARTING  
SURFFILE KONT\_V9\_ADJU\KONT\_v9.SFC  
PROFFILE KONT\_V9\_ADJU\KONT\_v9.PFL  
SURFDATA 3102 2012  
UAIRDATA 3190 2012  
PROFBASE 289.0 METERS

ME FINISHED  
\*\*  
\*\*\*\*\*  
\*\* AERMOD Output Pathway  
\*\*\*\*\*  
\*\*  
\*\*

OU STARTING  
\*\* Auto-Generated Plotfiles  
PLOTFILE ANNUAL ALL "14539 Ops.AD\AN00GALL.PLT" 31  
SUMMFILE "14539 Ops.sum"  
OU FINISHED

\*\*\* Message Summary For AERMOD Model Setup \*\*\*

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)  
A Total of 2 Warning Message(s)  
A Total of 0 Informational Message(s)

\*\*\*\*\* FATAL ERROR MESSAGES \*\*\*\*\*  
\*\*\* NONE \*\*\*

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*  
ME W186 540 MEOPEN: THRESH\_1MIN 1-min ASOS wind speed threshold used 0.50  
ME W187 540 MEOPEN: ADJ\_U\* Option for Stable Low Winds used in AERMET

\*\*\*\*\*  
\*\*\* SETUP Finishes Successfully \*\*\*  
\*\*\*\*\*

\*\*\* AERMOD - VERSION 21112 \*\*\* \*\* C:\Users\Michael Tirohn\Desktop\HRAs\14539 IE  
Distribution\14539 Ops \*\*\* 08/23/22  
\*\*\* AERMET - VERSION 16216 \*\*\*  
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\*\*\* MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ\_U\*

\*\*\* MODEL SETUP OPTIONS SUMMARY \*\*\*

\*\*Model Is Setup For Calculation of Average CONCentration Values.

-- DEPOSITION LOGIC --  
\*\*NO GAS DEPOSITION Data Provided.  
\*\*NO PARTICLE DEPOSITION Data Provided.  
\*\*Model Uses NO DRY DEPLETION. DRYDPLT = F  
\*\*Model Uses NO WET DEPLETION. WETDPLT = F

\*\*Model Uses URBAN Dispersion Algorithm for the SBL for 205 Source(s),  
for Total of 1 Urban Area(s):  
Urban Population = 2035210.0 ; Urban Roughness Length = 1.000 m

\*\*Model Uses Regulatory DEFAULT Options:  
1. Stack-tip Downwash.  
2. Model Accounts for ELEvated Terrain Effects.  
3. Use Calms Processing Routine.  
4. Use Missing Data Processing Routine.  
5. No Exponential Decay.  
6. Urban Roughness Length of 1.0 Meter Assumed.

\*\*Other Options Specified:  
ADJ\_U\* - Use ADJ\_U\* option for SBL in AERMET  
CCVR\_Sub - Meteorological data includes CCVR substitutions  
TEMP\_Sub - Meteorological data includes TEMP substitutions

\*\*Model Assumes No FLAGPOLE Receptor Heights.

\*\*The User Specified a Pollutant Type of: DPM

\*\*Model Calculates ANNUAL Averages Only

\*\*This Run Includes: 205 Source(s); 1 Source Group(s); and 47 Receptor(s)

with: 0 POINT(s), including  
0 POINTCAP(s) and 0 POINTHOR(s)  
and: 205 VOLUME source(s)  
and: 0 AREA type source(s)  
and: 0 LINE source(s)  
and: 0 RLINE/RLINEXT source(s)  
and: 0 OPENPIT source(s)  
and: 0 BUOYANT LINE source(s) with a total of 0 line(s)

\*\*Model Set To Continue RUNning After the Setup Testing.

\*\*The AERMET Input Meteorological Data Version Date: 16216

\*\*Output Options Selected:  
Model Outputs Tables of ANNUAL Averages by Receptor  
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)  
Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

\*\*NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours  
m for Missing Hours  
b for Both Calm and Missing Hours

\*\*Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 289.00 ; Decay Coef. =  
0.000 ; Rot. Angle = 0.0  
Emission Units = GRAMS/SEC ; Emission Rate  
Unit Factor = 0.10000E+07  
Output Units = MICROGRAMS/M\*\*3

\*\*Approximate Storage Requirements of Model = 3.6 MB of RAM.

\*\*Input Runstream File:  
aermod.inp  
\*\*Output Print File:  
aermod.out

\*\*Detailed Error/Message File: 14539  
Ops.err  
\*\*File for Summary of Results: 14539

\*\*\* MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ\_U\*

\*\*\* VOLUME SOURCE DATA \*\*\*

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ
ID	CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	
(METERS)		BY						
L0000338	0	0.16730E-05	450588.6	3769293.5	298.6	3.49	4.00	3.25
YES								
L0000339	0	0.16730E-05	450597.2	3769293.7	298.6	3.49	4.00	3.25
YES								
L0000340	0	0.16730E-05	450605.7	3769294.0	298.6	3.49	4.00	3.25
YES								
L0000341	0	0.16730E-05	450614.3	3769294.2	298.6	3.49	4.00	3.25
YES								
L0000342	0	0.16730E-05	450622.9	3769294.5	298.6	3.49	4.00	3.25
YES								
L0000343	0	0.16730E-05	450631.5	3769294.7	298.7	3.49	4.00	3.25
YES								
L0000344	0	0.16730E-05	450640.1	3769295.0	298.7	3.49	4.00	3.25
YES								
L0000345	0	0.16730E-05	450648.7	3769295.2	298.7	3.49	4.00	3.25
YES								
L0000346	0	0.16730E-05	450657.3	3769295.5	298.7	3.49	4.00	3.25
YES								
L0000347	0	0.16730E-05	450665.8	3769295.7	298.7	3.49	4.00	3.25
YES								
L0000348	0	0.16730E-05	450674.4	3769296.0	298.7	3.49	4.00	3.25
YES								
L0000349	0	0.16730E-05	450683.0	3769296.2	298.7	3.49	4.00	3.25
YES								
L0000350	0	0.16730E-05	450691.6	3769296.5	298.7	3.49	4.00	3.25
YES								
L0000351	0	0.16730E-05	450700.2	3769296.7	298.7	3.49	4.00	3.25
YES								
L0000352	0	0.16730E-05	450708.8	3769297.0	298.7	3.49	4.00	3.25
YES								
L0000353	0	0.16730E-05	450717.4	3769297.3	298.7	3.49	4.00	3.25
YES								
L0000354	0	0.16730E-05	450726.0	3769297.5	298.6	3.49	4.00	3.25
YES								
L0000355	0	0.16730E-05	450734.5	3769297.8	298.6	3.49	4.00	3.25
YES								
L0000356	0	0.16730E-05	450743.1	3769298.0	298.6	3.49	4.00	3.25
YES								
L0000357	0	0.16730E-05	450751.7	3769298.3	298.6	3.49	4.00	3.25
YES								
L0000358	0	0.16730E-05	450760.3	3769298.5	298.6	3.49	4.00	3.25
YES								
L0000359	0	0.16730E-05	450768.9	3769298.8	298.6	3.49	4.00	3.25
YES								
L0000360	0	0.16730E-05	450777.5	3769299.0	298.6	3.49	4.00	3.25

YES	L0000361	0	0.16730E-05	450786.1	3769299.3	298.6	3.49	4.00	3.25
YES	L0000362	0	0.16730E-05	450794.6	3769299.5	298.6	3.49	4.00	3.25
YES	L0000363	0	0.16730E-05	450803.2	3769299.8	298.6	3.49	4.00	3.25
YES	L0000364	0	0.16730E-05	450811.8	3769300.0	298.6	3.49	4.00	3.25
YES	L0000365	0	0.32220E-06	450532.1	3769248.3	298.4	3.49	4.00	3.25
YES	L0000366	0	0.32220E-06	450532.1	3769256.9	298.5	3.49	4.00	3.25
YES	L0000367	0	0.32220E-06	450536.0	3769261.6	298.6	3.49	4.00	3.25
YES	L0000368	0	0.32220E-06	450544.6	3769261.7	298.6	3.49	4.00	3.25
YES	L0000369	0	0.32220E-06	450553.2	3769261.7	298.6	3.49	4.00	3.25
YES	L0000370	0	0.32220E-06	450561.8	3769261.8	298.6	3.49	4.00	3.25
YES	L0000371	0	0.32220E-06	450570.4	3769261.8	298.6	3.49	4.00	3.25
YES	L0000372	0	0.32220E-06	450578.9	3769261.9	298.6	3.49	4.00	3.25
YES	L0000373	0	0.32220E-06	450585.7	3769266.4	298.5	3.49	4.00	3.25
YES	L0000374	0	0.32220E-06	450591.6	3769272.5	298.4	3.49	4.00	3.25
YES	L0000375	0	0.32220E-06	450599.3	3769274.8	298.4	3.49	4.00	3.25
YES	L0000376	0	0.32220E-06	450607.9	3769275.0	298.4	3.49	4.00	3.25
YES	L0000377	0	0.32220E-06	450616.5	3769275.1	298.5	3.49	4.00	3.25

**HR** \*\*\* AERMOD - VERSION 21112 \*\*\* C:\Users\Michael Tirohn\Desktop\HRAs\14539 IE  
 Distribution\14539 Ops \*\*\* 08/23/22  
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\*\*\* MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ\_U\*

\*\*\* VOLUME SOURCE DATA \*\*\*

SOURCE	NUMBER	EMISSION	RATE		BASE	RELEASE	INIT.	INIT.
SOURCE	URBAN	EMISSION	RATE		ELEV.	HEIGHT	SY	SZ
ID	PART.	(GRAMS/SEC)		X	(METERS)	(METERS)	(METERS)	(METERS)
(METERS)	SCALAR	VARY	BY	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)
	CATS.							
L0000378	0	0.32220E-06	450625.1	3769275.3	298.6	3.49	4.00	3.25
YES								
L0000379	0	0.32220E-06	450633.7	3769275.5	298.7	3.49	4.00	3.25
YES								
L0000380	0	0.32220E-06	450642.3	3769275.6	298.7	3.49	4.00	3.25
YES								
L0000381	0	0.32220E-06	450650.8	3769275.8	298.7	3.49	4.00	3.25
YES								
L0000382	0	0.32220E-06	450659.4	3769276.0	298.7	3.49	4.00	3.25
YES								
L0000383	0	0.32220E-06	450668.0	3769276.2	298.7	3.49	4.00	3.25

YES								
L0000384	0	0.32220E-06	450676.6	3769276.3	298.7	3.49	4.00	3.25
YES								
L0000385	0	0.32220E-06	450685.2	3769276.5	298.7	3.49	4.00	3.25
YES								
L0000386	0	0.32220E-06	450693.8	3769276.7	298.7	3.49	4.00	3.25
YES								
L0000387	0	0.32220E-06	450702.4	3769276.8	298.7	3.49	4.00	3.25
YES								
L0000388	0	0.32220E-06	450711.0	3769277.0	298.6	3.49	4.00	3.25
YES								
L0000389	0	0.32220E-06	450719.5	3769277.2	298.5	3.49	4.00	3.25
YES								
L0000390	0	0.32220E-06	450728.1	3769277.3	298.4	3.49	4.00	3.25
YES								
L0000391	0	0.32220E-06	450736.7	3769277.5	298.4	3.49	4.00	3.25
YES								
L0000392	0	0.32220E-06	450745.3	3769277.7	298.4	3.49	4.00	3.25
YES								
L0000393	0	0.32220E-06	450753.9	3769277.8	298.4	3.49	4.00	3.25
YES								
L0000394	0	0.32220E-06	450762.5	3769278.0	298.4	3.49	4.00	3.25
YES								
L0000395	0	0.32220E-06	450771.1	3769278.2	298.3	3.49	4.00	3.25
YES								
L0000396	0	0.32220E-06	450779.7	3769278.3	298.2	3.49	4.00	3.25
YES								
L0000397	0	0.32220E-06	450788.2	3769277.7	298.1	3.49	4.00	3.25
YES								
L0000398	0	0.32220E-06	450796.8	3769276.8	298.1	3.49	4.00	3.25
YES								
L0000399	0	0.32220E-06	450805.3	3769275.9	298.1	3.49	4.00	3.25
YES								
L0000400	0	0.32220E-06	450813.9	3769275.0	298.1	3.49	4.00	3.25
YES								
L0000401	0	0.32220E-06	450822.4	3769274.3	298.1	3.49	4.00	3.25
YES								
L0000402	0	0.32220E-06	450831.0	3769274.3	298.2	3.49	4.00	3.25
YES								
L0000403	0	0.32220E-06	450839.6	3769274.2	298.3	3.49	4.00	3.25
YES								
L0000404	0	0.32220E-06	450848.2	3769274.2	298.4	3.49	4.00	3.25
YES								
L0000405	0	0.32220E-06	450856.8	3769274.1	298.4	3.49	4.00	3.25
YES								
L0000406	0	0.32220E-06	450865.4	3769274.0	298.5	3.49	4.00	3.25
YES								
L0000407	0	0.32220E-06	450873.9	3769274.0	298.6	3.49	4.00	3.25
YES								
L0000408	0	0.32220E-06	450875.5	3769266.8	298.5	3.49	4.00	3.25
YES								
L0000409	0	0.32220E-06	450875.8	3769258.2	298.3	3.49	4.00	3.25
YES								
L0000410	0	0.32220E-06	450876.0	3769249.6	298.2	3.49	4.00	3.25
YES								
L0000411	0	0.18440E-06	450538.5	3769231.7	298.4	3.49	6.51	3.25
YES								
L0000412	0	0.18440E-06	450552.5	3769231.6	298.4	3.49	6.51	3.25
YES								
L0000413	0	0.18440E-06	450566.5	3769231.5	298.6	3.49	6.51	3.25
YES								
L0000414	0	0.18440E-06	450580.5	3769231.4	298.7	3.49	6.51	3.25
YES								
L0000415	0	0.18440E-06	450594.5	3769231.3	298.7	3.49	6.51	3.25
YES								
L0000416	0	0.18440E-06	450608.5	3769231.2	298.7	3.49	6.51	3.25

YES  
L0000417 0 0.18440E-06 450622.5 3769231.1 298.7 3.49 6.51 3.25

YES  
\*\*\* AERMOD - VERSION 21112 \*\*\* \*\* C:\Users\Michael Tirohn\Desktop\HRAs\14539 IE  
Distribution\14539 Ops \*\*\* 08/23/22  
\*\*\* AERMET - VERSION 16216 \*\*\*  
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\*\*\* MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ\_U\*

\*\*\* VOLUME SOURCE DATA \*\*\*

SOURCE	NUMBER	EMISSION RATE			BASE	RELEASE	INIT.	INIT.
SOURCE	URBAN	EMISSION RATE	X	Y	ELEV.	HEIGHT	SY	SZ
ID	SCALAR	(GRAMS/SEC)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)
(METERS)	VARY	BY						
CATS.								
L0000418	0	0.18440E-06	450636.5	3769231.0	298.7	3.49	6.51	3.25
YES								
L0000419	0	0.18440E-06	450650.5	3769230.8	298.7	3.49	6.51	3.25
YES								
L0000420	0	0.18440E-06	450664.5	3769230.7	298.7	3.49	6.51	3.25
YES								
L0000421	0	0.18440E-06	450678.5	3769230.6	298.6	3.49	6.51	3.25
YES								
L0000422	0	0.18440E-06	450692.5	3769230.5	298.5	3.49	6.51	3.25
YES								
L0000423	0	0.18440E-06	450706.5	3769230.4	298.4	3.49	6.51	3.25
YES								
L0000424	0	0.18440E-06	450720.5	3769230.3	298.4	3.49	6.51	3.25
YES								
L0000425	0	0.18440E-06	450734.5	3769230.2	298.4	3.49	6.51	3.25
YES								
L0000426	0	0.18440E-06	450748.5	3769230.1	298.4	3.49	6.51	3.25
YES								
L0000427	0	0.18440E-06	450762.5	3769230.0	298.4	3.49	6.51	3.25
YES								
L0000428	0	0.18440E-06	450776.5	3769229.8	298.4	3.49	6.51	3.25
YES								
L0000429	0	0.18440E-06	450790.5	3769229.7	298.4	3.49	6.51	3.25
YES								
L0000430	0	0.18440E-06	450804.5	3769229.6	298.4	3.49	6.51	3.25
YES								
L0000431	0	0.18440E-06	450818.5	3769229.5	298.4	3.49	6.51	3.25
YES								
L0000432	0	0.18440E-06	450832.5	3769229.4	298.3	3.49	6.51	3.25
YES								
L0000433	0	0.18440E-06	450846.5	3769229.3	298.3	3.49	6.51	3.25
YES								
L0000434	0	0.18440E-06	450860.5	3769229.2	298.1	3.49	6.51	3.25
YES								
L0000435	0	0.18440E-06	450874.5	3769229.1	297.8	3.49	6.51	3.25
YES								
L0000436	0	0.18440E-06	450888.5	3769229.0	297.7	3.49	6.51	3.25
YES								
L0000437	0	0.18440E-06	450902.5	3769228.9	297.7	3.49	6.51	3.25
YES								
L0000438	0	0.18440E-06	450916.5	3769228.7	297.7	3.49	6.51	3.25
YES								
L0000439	0	0.18440E-06	450930.5	3769228.6	297.6	3.49	6.51	3.25

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YES
L0000440      0  0.18440E-06  450944.5  3769228.5  297.5    3.49    6.51    3.25
YES
L0000441      0  0.18440E-06  450958.5  3769228.4  297.4    3.49    6.51    3.25
YES
L0000442      0  0.18440E-06  450972.5  3769228.3  297.2    3.49    6.51    3.25
YES
L0000443      0  0.18440E-06  450986.5  3769228.2  297.2    3.49    6.51    3.25
YES
L0000444      0  0.18440E-06  451000.5  3769228.1  297.1    3.49    6.51    3.25
YES
L0000445      0  0.18440E-06  451014.5  3769228.0  297.1    3.49    6.51    3.25
YES
L0000446      0  0.18440E-06  451028.5  3769227.9  297.0    3.49    6.51    3.25
YES
L0000447      0  0.18440E-06  451042.5  3769227.8  296.9    3.49    6.51    3.25
YES
L0000448      0  0.18440E-06  451056.5  3769227.6  296.8    3.49    6.51    3.25
YES
L0000449      0  0.18440E-06  451070.5  3769227.5  296.8    3.49    6.51    3.25
YES
L0000450      0  0.18440E-06  451084.5  3769227.4  296.7    3.49    6.51    3.25
YES
L0000451      0  0.18440E-06  451098.5  3769227.3  296.7    3.49    6.51    3.25
YES
L0000452      0  0.18440E-06  451112.5  3769227.2  296.7    3.49    6.51    3.25
YES
L0000453      0  0.18440E-06  451126.5  3769227.1  296.6    3.49    6.51    3.25
YES
L0000454      0  0.18440E-06  451140.5  3769227.0  296.5    3.49    6.51    3.25
YES
L0000455      0  0.18440E-06  451154.5  3769226.9  296.5    3.49    6.51    3.25
YES
L0000456      0  0.18440E-06  451168.5  3769226.8  296.4    3.49    6.51    3.25
YES
L0000457      0  0.18440E-06  451182.5  3769226.6  296.4    3.49    6.51    3.25
YES

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*** AERMOD - VERSION 21112 ***      *** C:\Users\Michael Tirohn\Desktop\HRAs\14539 IE
Distribution\14539 Ops ***          08/23/22

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*** AERMET - VERSION 16216 ***
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*** 11:35:02

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*** MODELOPTs:  RegDFAULT CONC ELEV URBAN ADJ_U*

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*** VOLUME SOURCE DATA ***

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SOURCE	SOURCE	ID	NUMBER	EMISSION	RATE	X	Y	BASE	RELEASE	INIT.	INIT.
	SCALAR	(METERS)	PART.	(GRAMS/SEC)				(METERS)	(METERS)	(METERS)	(METERS)
	VARY		CATS.	BY							
L0000458	0	0.18440E-06	451196.5	3769226.5	296.4	3.49	6.51	3.25			
YES											
L0000459	0	0.18440E-06	451210.5	3769226.4	296.4	3.49	6.51	3.25			
YES											
L0000460	0	0.18440E-06	451224.5	3769226.3	296.3	3.49	6.51	3.25			
YES											
L0000461	0	0.18440E-06	451238.5	3769226.2	296.3	3.49	6.51	3.25			
YES											
L0000462	0	0.18440E-06	451252.5	3769226.1	296.2	3.49	6.51	3.25			

YES								
L0000463	0	0.18440E-06	451266.5	3769226.0	296.1	3.49	6.51	3.25
YES								
L0000464	0	0.18440E-06	451280.5	3769225.9	295.9	3.49	6.51	3.25
YES								
L0000465	0	0.18440E-06	451294.5	3769225.8	295.8	3.49	6.51	3.25
YES								
L0000466	0	0.18440E-06	451308.5	3769225.7	295.7	3.49	6.51	3.25
YES								
L0000467	0	0.18440E-06	451322.5	3769225.5	295.5	3.49	6.51	3.25
YES								
L0000468	0	0.18440E-06	451336.5	3769225.4	295.5	3.49	6.51	3.25
YES								
L0000469	0	0.18440E-06	451350.5	3769225.3	295.7	3.49	6.51	3.25
YES								
L0000470	0	0.18440E-06	451364.5	3769225.2	295.9	3.49	6.51	3.25
YES								
L0000471	0	0.18440E-06	451378.5	3769225.1	296.1	3.49	6.51	3.25
YES								
L0000472	0	0.18440E-06	451392.5	3769225.0	296.4	3.49	6.51	3.25
YES								
L0000473	0	0.18440E-06	451406.5	3769224.9	296.5	3.49	6.51	3.25
YES								
L0000474	0	0.18440E-06	451420.5	3769224.8	296.6	3.49	6.51	3.25
YES								
L0000475	0	0.18440E-06	451434.5	3769224.7	296.7	3.49	6.51	3.25
YES								
L0000476	0	0.18440E-06	451448.5	3769224.6	296.7	3.49	6.51	3.25
YES								
L0000477	0	0.18440E-06	451462.4	3769224.2	297.0	3.49	6.51	3.25
YES								
L0000478	0	0.18440E-06	451476.4	3769223.1	297.2	3.49	6.51	3.25
YES								
L0000479	0	0.18440E-06	451489.6	3769218.6	297.4	3.49	6.51	3.25
YES								
L0000480	0	0.18440E-06	451502.7	3769213.6	297.6	3.49	6.51	3.25
YES								
L0000481	0	0.18440E-06	451515.7	3769208.5	297.5	3.49	6.51	3.25
YES								
L0000482	0	0.18440E-06	451528.8	3769203.5	297.3	3.49	6.51	3.25
YES								
L0000483	0	0.18440E-06	451541.8	3769198.4	297.1	3.49	6.51	3.25
YES								
L0000484	0	0.18440E-06	451554.9	3769193.3	297.2	3.49	6.51	3.25
YES								
L0000485	0	0.18440E-06	451567.9	3769188.3	297.2	3.49	6.51	3.25
YES								
L0000486	0	0.18440E-06	451581.1	3769183.4	297.3	3.49	6.51	3.25
YES								
L0000487	0	0.18440E-06	451594.6	3769180.0	297.4	3.49	6.51	3.25
YES								
L0000488	0	0.18440E-06	451608.4	3769178.0	297.4	3.49	6.51	3.25
YES								
L0000489	0	0.18440E-06	451622.4	3769177.1	297.4	3.49	6.51	3.25
YES								
L0000490	0	0.18440E-06	451631.0	3769182.8	297.6	3.49	6.51	3.25
YES								
L0000491	0	0.18440E-06	451632.8	3769196.6	298.1	3.49	6.51	3.25
YES								
L0000492	0	0.18440E-06	451633.8	3769210.6	298.5	3.49	6.51	3.25
YES								
L0000493	0	0.18440E-06	451633.7	3769224.6	298.9	3.49	6.51	3.25
YES								
L0000494	0	0.18440E-06	451633.6	3769238.6	299.4	3.49	6.51	3.25
YES								
L0000495	0	0.18440E-06	451633.5	3769252.6	299.9	3.49	6.51	3.25



YES  
 L0000496      0   0.18440E-06   451633.5   3769266.6   300.4   3.49   6.51   3.25  
 YES  
 L0000497      0   0.18440E-06   451633.4   3769280.6   301.0   3.49   6.51   3.25  
 YES  
 \*\*\* AERMOD - VERSION 21112 \*\*\*      \*\*\* C:\Users\Michael Tirohn\Desktop\HRAs\14539 IE  
 Distribution\14539 Ops \*\*\*      08/23/22  
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\*\*\* MODELOPTs:      RegDFAULT   CONC   ELEV   URBAN   ADJ\_U\*

\*\*\* VOLUME SOURCE DATA \*\*\*

SOURCE SOURCE ID (METERS)	SCALAR VARY CATS.	NUMBER URBAN PART. (GRAMS/SEC) BY	EMISSION RATE		X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ
			EMISSION RATE							
L0000498	0	0.18440E-06	451633.3	3769294.6	301.8	3.49	6.51	3.25	YES	
L0000499	0	0.18440E-06	451633.2	3769308.6	302.6	3.49	6.51	3.25	YES	
L0000500	0	0.18440E-06	451633.1	3769322.6	303.6	3.49	6.51	3.25	YES	
L0000501	0	0.18440E-06	451633.0	3769336.6	304.6	3.49	6.51	3.25	YES	
L0000502	0	0.18440E-06	451632.9	3769350.6	305.9	3.49	6.51	3.25	YES	
L0000503	0	0.18440E-06	451632.8	3769364.6	307.2	3.49	6.51	3.25	YES	
L0000504	0	0.18440E-06	451632.8	3769378.6	307.3	3.49	6.51	3.25	YES	
L0000505	0	0.18440E-06	451633.0	3769392.6	307.2	3.49	6.51	3.25	YES	
L0000506	0	0.18440E-06	451633.2	3769406.6	306.5	3.49	6.51	3.25	YES	
L0000507	0	0.18440E-06	451633.5	3769420.6	305.7	3.49	6.51	3.25	YES	
L0000508	0	0.18440E-06	451633.7	3769434.6	305.2	3.49	6.51	3.25	YES	
L0000509	0	0.18440E-06	451633.9	3769448.6	304.9	3.49	6.51	3.25	YES	
L0000510	0	0.18440E-06	451634.2	3769462.6	305.0	3.49	6.51	3.25	YES	
L0000511	0	0.18440E-06	451634.4	3769476.6	305.4	3.49	6.51	3.25	YES	
L0000512	0	0.18440E-06	451634.7	3769490.6	305.9	3.49	6.51	3.25	YES	
L0000513	0	0.18440E-06	451635.0	3769504.5	306.4	3.49	6.51	3.25	YES	
L0000514	0	0.18440E-06	451635.4	3769518.5	306.7	3.49	6.51	3.25	YES	
L0000515	0	0.18440E-06	451635.8	3769532.5	306.5	3.49	6.51	3.25	YES	
L0000516	0	0.18440E-06	451636.2	3769546.5	306.2	3.49	6.51	3.25	YES	
L0000517	0	0.18440E-06	451636.5	3769560.5	306.3	3.49	6.51	3.25	YES	
L0000518	0	0.18440E-06	451636.9	3769574.5	306.5	3.49	6.51	3.25	YES	

YES	L0000519	0	0.18440E-06	451637.3	3769588.5	307.0	3.49	6.51	3.25
YES	L0000520	0	0.18440E-06	451637.6	3769602.5	307.5	3.49	6.51	3.25
YES	L0000521	0	0.18440E-06	451637.9	3769616.5	307.7	3.49	6.51	3.25
YES	L0000522	0	0.18440E-06	451637.9	3769630.5	307.8	3.49	6.51	3.25
YES	L0000523	0	0.18440E-06	451637.9	3769644.5	307.2	3.49	6.51	3.25
YES	L0000524	0	0.18440E-06	451637.9	3769658.5	306.3	3.49	6.51	3.25
YES	L0000525	0	0.18440E-06	451637.9	3769672.5	305.6	3.49	6.51	3.25
YES	L0000526	0	0.18440E-06	451637.9	3769686.5	305.1	3.49	6.51	3.25
YES	L0000527	0	0.18440E-06	451637.9	3769700.5	304.7	3.49	6.51	3.25
YES	L0000528	0	0.18440E-06	451637.9	3769714.5	304.5	3.49	6.51	3.25
YES	L0000529	0	0.18440E-06	451637.9	3769728.5	304.4	3.49	6.51	3.25
YES	L0000530	0	0.18440E-06	451637.9	3769742.5	304.6	3.49	6.51	3.25
YES	L0000531	0	0.18440E-06	451637.9	3769756.5	304.8	3.49	6.51	3.25
YES	L0000532	0	0.18440E-06	451637.9	3769770.5	305.1	3.49	6.51	3.25
YES	L0000533	0	0.18440E-06	451637.9	3769784.5	305.3	3.49	6.51	3.25
YES	L0000534	0	0.18440E-06	451638.3	3769798.5	306.2	3.49	6.51	3.25
YES	L0000535	0	0.18440E-06	451638.8	3769812.5	307.1	3.49	6.51	3.25
YES	L0000536	0	0.18440E-06	451639.3	3769826.5	307.4	3.49	6.51	3.25
YES	L0000537	0	0.18440E-06	451639.7	3769840.5	307.5	3.49	6.51	3.25

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\*\*\* MODELOPTs: RegDEFAULT CONC ELEV URBAN ADJ\_U\*

\*\*\* VOLUME SOURCE DATA \*\*\*

SOURCE	NUMBER	EMISSION	RATE		BASE	RELEASE	INIT.	INIT.
SOURCE	PART.	(GRAMS/SEC)	X	Y	ELEV.	HEIGHT	SY	SZ
ID	SCALAR	VARY			(METERS)	(METERS)	(METERS)	(METERS)
(METERS)	CATS.	BY						

L0000538	0	0.18440E-06	451640.2	3769854.5	307.8	3.49	6.51	3.25	
YES	L0000539	0	0.18440E-06	451640.7	3769868.5	308.4	3.49	6.51	3.25
YES	L0000540	0	0.18440E-06	451641.1	3769882.5	308.5	3.49	6.51	3.25
YES	L0000541	0	0.18440E-06	451641.6	3769896.4	308.2	3.49	6.51	3.25

YES  
L0000542 0 0.18440E-06 451642.1 3769910.4 307.8 3.49 6.51 3.25

YES

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\*\*\* MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ\_U\*

\*\*\* SOURCE IDs DEFINING SOURCE GROUPS \*\*\*

SRCGROUP ID

SOURCE IDs

-----

ALL	L0000338	, L0000339	, L0000340	, L0000341	, L0000342	, L0000343	,
L0000344	, L0000345	,					
	L0000346	, L0000347	, L0000348	, L0000349	, L0000350	, L0000351	,
	L0000352	, L0000353	,				
	L0000354	, L0000355	, L0000356	, L0000357	, L0000358	, L0000359	,
	L0000360	, L0000361	,				
	L0000362	, L0000363	, L0000364	, L0000365	, L0000366	, L0000367	,
	L0000368	, L0000369	,				
	L0000370	, L0000371	, L0000372	, L0000373	, L0000374	, L0000375	,
	L0000376	, L0000377	,				
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	L0000384	, L0000385	,				
	L0000386	, L0000387	, L0000388	, L0000389	, L0000390	, L0000391	,
	L0000392	, L0000393	,				
	L0000394	, L0000395	, L0000396	, L0000397	, L0000398	, L0000399	,
	L0000400	, L0000401	,				
	L0000402	, L0000403	, L0000404	, L0000405	, L0000406	, L0000407	,
	L0000408	, L0000409	,				
	L0000410	, L0000411	, L0000412	, L0000413	, L0000414	, L0000415	,
	L0000416	, L0000417	,				
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	L0000424	, L0000425	,				
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	L0000432	, L0000433	,				
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	L0000456	, L0000457	,				
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	L0000464	, L0000465	,				

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 L0000474 , L0000475 , L0000476 , L0000477 , L0000478 , L0000479 ,  
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 L0000496 , L0000497 ,

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\*\*\* MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ\_U\*

\*\*\* SOURCE IDs DEFINING SOURCE GROUPS \*\*\*

SRCGROUP ID  
 -----

SOURCE IDs  
 -----

L0000498 , L0000499 , L0000500 , L0000501 , L0000502 , L0000503 ,  
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\*\*\* MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ\_U\*

\*\*\* SOURCE IDs DEFINED AS URBAN SOURCES \*\*\*

URBAN ID URBAN POP  
 -----

SOURCE IDs  
 -----

L0000345 , 2035210. L0000338 , L0000339 , L0000340 , L0000341 , L0000342 ,  
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 L0000346 , L0000347 , L0000348 , L0000349 , L0000350 , L0000351 ,  
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\*\*\* MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ\_U\*

\*\*\* SOURCE IDs DEFINED AS URBAN SOURCES \*\*\*

```

URBAN ID      URBAN POP      SOURCE IDs
-----

```

L0000498 , L0000499 , L0000500 , L0000501 , L0000502 , L0000503 ,  
L0000504 , L0000505 ,  
  
L0000506 , L0000507 , L0000508 , L0000509 , L0000510 , L0000511 ,  
L0000512 , L0000513 ,  
  
L0000514 , L0000515 , L0000516 , L0000517 , L0000518 , L0000519 ,  
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L0000522 , L0000523 , L0000524 , L0000525 , L0000526 , L0000527 ,  
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L0000530 , L0000531 , L0000532 , L0000533 , L0000534 , L0000535 ,  
L0000536 , L0000537 ,  
  
L0000538 , L0000539 , L0000540 , L0000541 , L0000542 ,

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\*\*\* MODELOPTs: RegDEFAULT CONC ELEV URBAN ADJ\_U\*

\*\*\* DISCRETE CARTESIAN RECEPTORS \*\*\*  
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)  
(METERS)

( 450497.4, 3769490.5,	301.2,	301.2,	0.0);	( 450800.7, 3769496.4,
301.2,	301.2,	0.0);		
( 450844.7, 3769482.7,	300.8,	300.8,	0.0);	( 450443.3, 3769464.3,
300.9,	300.9,	0.0);		
( 450501.5, 3769327.5,	299.2,	299.2,	0.0);	( 450500.6, 3769279.8,
298.7,	298.7,	0.0);		
( 450904.5, 3769273.6,	298.7,	298.7,	0.0);	( 450904.5, 3769256.7,
298.3,	298.3,	0.0);		
( 451224.7, 3769252.7,	296.5,	296.5,	0.0);	( 451223.3, 3769282.5,
297.0,	297.0,	0.0);		
( 451085.8, 3769299.7,	297.7,	297.7,	0.0);	( 451203.8, 3769285.4,
297.1,	297.1,	0.0);		
( 450660.4, 3769097.0,	298.3,	298.3,	0.0);	( 451202.0, 3769091.5,
294.3,	294.3,	0.0);		
( 450843.3, 3769093.9,	296.0,	296.0,	0.0);	( 451065.3, 3769091.5,
295.0,	295.0,	0.0);		
( 450488.4, 3769125.6,	297.5,	297.5,	0.0);	( 450365.0, 3769200.8,
297.4,	297.4,	0.0);		
( 449491.0, 3769987.6,	306.4,	306.4,	0.0);	( 451310.5, 3769494.7,
298.9,	298.9,	0.0);		
( 451571.6, 3769299.6,	300.9,	300.9,	0.0);	( 451412.2, 3769298.4,
297.6,	297.6,	0.0);		
( 451467.2, 3769186.0,	296.7,	296.7,	0.0);	( 449272.9, 3769950.8,
304.9,	304.9,	0.0);		
( 449463.3, 3769963.2,	305.9,	305.9,	0.0);	( 449418.9, 3769937.8,
305.4,	305.4,	0.0);		
( 449134.5, 3770074.5,	305.9,	305.9,	0.0);	( 448757.9, 3770086.1,
305.4,	305.4,	0.0);		
( 451123.0, 3769118.2,	295.2,	295.2,	0.0);	( 453236.6, 3767558.9,
279.1,	279.1,	0.0);		
( 453308.3, 3767535.1,	279.2,	279.2,	0.0);	( 453281.0, 3767662.3,
280.5,	280.5,	0.0);		
( 453784.7, 3767275.2,	274.3,	274.3,	0.0);	( 453764.7, 3767244.9,
273.9,	273.9,	0.0);		
( 448293.4, 3770898.6,	316.0,	316.0,	0.0);	( 448374.2, 3771008.4,
318.1,	318.1,	0.0);		
( 448407.8, 3771051.1,	318.9,	318.9,	0.0);	( 451567.7, 3769513.9,
304.1,	304.1,	0.0);		

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( 451567.3, 3769558.7, 304.5, 304.5, 0.0); ( 451504.3, 3769499.8,
301.8, 301.8, 0.0);
( 451404.2, 3769478.0, 299.6, 299.6, 0.0); ( 451080.2, 3769366.8,
298.5, 298.5, 0.0);
( 451083.4, 3769345.3, 298.2, 298.2, 0.0); ( 451855.6, 3769413.3,
300.9, 300.9, 0.0);
( 451858.8, 3769297.5, 299.2, 299.2, 0.0); ( 451877.2, 3769588.2,
303.3, 303.3, 0.0);
( 451769.8, 3769173.3, 296.9, 296.9,
0.0);
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\*\*\* MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ\_U\*

\*\*\* METEOROLOGICAL DAYS SELECTED FOR PROCESSING \*\*\*
(1=YES; 0=NO)

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1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
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1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS
INCLUDED IN THE DATA FILE.

\*\*\* UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES
\*\*\*
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

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\*\*\* MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ\_U\*

\*\*\* UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA \*\*\*

Surface file:
KONT\_V9\_ADJU\KONT\_v9.SFC
Version: 16216
Profile file:
KONT\_V9\_ADJU\KONT\_v9.PFL
Surface format:
FREE

Met

Profile format:

FREE

Surface station no.: 3102  
 Name: UNKNOWN  
 UNKNOWN  
 Year: 2012

Upper air station no.: 3190  
 Name:  
 Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS
WD	HT	REF	TA	HT													
12	01	01	1	01	-16.4	0.171	-9.000	-9.000	-999.	170.	32.3	0.09	1.12	1.00	2.03		
43.	7.9	285.9		2.0													
12	01	01	1	02	-18.8	0.194	-9.000	-9.000	-999.	205.	41.3	0.09	1.12	1.00	2.28		
34.	7.9	285.4		2.0													
12	01	01	1	03	-17.8	0.182	-9.000	-9.000	-999.	187.	36.5	0.09	1.12	1.00	2.15		
24.	7.9	282.0		2.0													
12	01	01	1	04	-9.4	0.128	-9.000	-9.000	-999.	110.	19.6	0.09	1.12	1.00	1.55		
41.	7.9	283.1		2.0													
12	01	01	1	05	-16.9	0.173	-9.000	-9.000	-999.	173.	33.0	0.09	1.12	1.00	2.05		
39.	7.9	280.4		2.0													
12	01	01	1	06	-8.0	0.117	-9.000	-9.000	-999.	97.	17.8	0.09	1.12	1.00	1.43		
21.	7.9	282.0		2.0													
12	01	01	1	07	-7.6	0.115	-9.000	-9.000	-999.	93.	17.4	0.09	1.12	1.00	1.40		
31.	7.9	282.5		2.0													
12	01	01	1	08	-13.6	0.184	-9.000	-9.000	-999.	190.	40.5	0.09	1.12	0.54	2.16		
34.	7.9	284.2		2.0													
12	01	01	1	09	28.4	0.126	0.300	0.011	33.	108.	-6.2	0.09	1.12	0.32	1.03		
29.	7.9	289.2		2.0													
12	01	01	1	10	79.8	0.133	0.607	0.010	99.	116.	-2.6	0.09	1.12	0.25	0.94		
173.	7.9	292.5		2.0													
12	01	01	1	11	115.8	0.137	0.932	0.006	246.	121.	-2.0	0.09	1.12	0.22	0.92		
172.	7.9	295.4		2.0													
12	01	01	1	12	133.7	0.139	1.197	0.005	453.	125.	-1.8	0.09	1.12	0.21	0.92		
146.	7.9	297.5		2.0													
12	01	01	1	13	133.2	0.160	1.354	0.005	657.	153.	-2.7	0.09	1.12	0.21	1.14		
117.	7.9	299.9		2.0													
12	01	01	1	14	113.5	0.159	1.454	0.005	955.	151.	-3.1	0.09	1.12	0.23	1.16		
285.	7.9	300.9		2.0													
12	01	01	1	15	76.2	0.166	1.350	0.005	1138.	163.	-5.3	0.09	1.12	0.26	1.33		
72.	7.9	302.0		2.0													
12	01	01	1	16	23.5	0.175	0.925	0.005	1183.	175.	-19.9	0.09	1.12	0.35	1.65		
107.	7.9	301.4		2.0													
12	01	01	1	17	-6.1	0.107	-9.000	-9.000	-999.	86.	18.0	0.09	1.12	0.63	1.31		
107.	7.9	298.1		2.0													
12	01	01	1	18	-11.1	0.141	-9.000	-9.000	-999.	127.	22.1	0.09	1.12	1.00	1.69		
86.	7.9	293.1		2.0													
12	01	01	1	19	-3.2	0.076	-9.000	-9.000	-999.	51.	11.8	0.09	1.12	1.00	0.91		
64.	7.9	292.0		2.0													
12	01	01	1	20	-2.3	0.066	-9.000	-9.000	-999.	41.	11.2	0.09	1.12	1.00	0.74		
73.	7.9	288.8		2.0													
12	01	01	1	21	-10.0	0.133	-9.000	-9.000	-999.	116.	20.5	0.09	1.12	1.00	1.60		
14.	7.9	288.1		2.0													
12	01	01	1	22	-19.4	0.201	-9.000	-9.000	-999.	216.	44.5	0.09	1.12	1.00	2.36		
22.	7.9	287.5		2.0													
12	01	01	1	23	-23.7	0.246	-9.000	-9.000	-999.	293.	66.5	0.09	1.12	1.00	2.86		
40.	7.9	287.0		2.0													
12	01	01	1	24	-12.3	0.147	-9.000	-9.000	-999.	139.	23.8	0.09	1.12	1.00	1.76		
40.	7.9	283.8		2.0													

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
12	01	01	01	7.9	1	43.	2.03	286.0	99.0	-99.00	-99.00



F indicates top of profile (=1) or below (=0)

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\*\*\* MODELOPTs: RegDEFAULT CONC ELEV URBAN ADJ\_U\*

\*\*\* THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR  
SOURCE GROUP: ALL \*\*\*

INCLUDING SOURCE(S): L0000338 , L0000339 ,  
L0000340 , L0000341 , L0000342 ,  
L0000343 , L0000344 , L0000345 , L0000346 , L0000347 ,  
L0000348 , L0000349 , L0000350 ,  
L0000351 , L0000352 , L0000353 , L0000354 , L0000355 ,  
L0000356 , L0000357 , L0000358 ,  
L0000359 , L0000360 , L0000361 , L0000362 , L0000363 ,  
L0000364 , L0000365 , . . . ,

\*\*\* DISCRETE CARTESIAN RECEPTOR POINTS \*\*\*

\*\* CONC OF DPM IN \*\*  
MICROGRAMS/M\*\*3

X-COORD (M) (M)	Y-COORD (M) CONC	CONC	X-COORD (M)	Y-COORD
450497.39	3769490.46	0.00050	450800.72	
3769496.41	0.00096			
450844.74	3769482.73	0.00110	450443.26	
3769464.29	0.00045			
450501.53	3769327.46	0.00126	450500.56	
3769279.81	0.00163			
450904.52	3769273.57	0.00417	450904.52	
3769256.68	0.00368			
451224.66	3769252.72	0.00132	451223.34	
3769282.54	0.00101			
451085.83	3769299.70	0.00132	451203.81	
3769285.44	0.00103			
450660.39	3769097.00	0.00113	451201.96	
3769091.46	0.00042			
450843.34	3769093.95	0.00086	451065.35	
3769091.46	0.00051			
450488.39	3769125.56	0.00087	450365.04	
3769200.78	0.00048			
449490.95	3769987.56	0.00003	451310.46	
3769494.69	0.00061			
451571.63	3769299.56	0.00077	451412.20	
3769298.37	0.00076			
451467.16	3769185.97	0.00080	449272.92	
3769950.83	0.00003			
449463.32	3769963.25	0.00003	449418.90	
3769937.78	0.00003			
449134.45	3770074.53	0.00002	448757.86	
3770086.14	0.00002			
451123.04	3769118.25	0.00054	453236.59	
3767558.94	0.00001			
453308.35	3767535.11	0.00001	453281.04	
3767662.29	0.00001			
453784.70	3767275.20	0.00001	453764.70	
3767244.94	0.00001			
448293.38	3770898.58	0.00001	448374.25	
3771008.42	0.00001			
448407.77	3771051.14	0.00001	451567.70	

```

3769513.90      0.00065
451567.29      3769558.70      0.00063      451504.33
3769499.78      0.00054
451404.23      3769477.98      0.00056      451080.25
3769366.84      0.00131
451083.41      3769345.35      0.00132      451855.58
3769413.29      0.00038
451858.79      3769297.51      0.00034      451877.19
3769588.22      0.00036
451769.79      3769173.32
0.00032

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\*\*\* MODELOPTs: RegDEFAULT CONC ELEV URBAN ADJ\_U\*

\*\*\* THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 5 YEARS \*\*\*

\*\* CONC OF DPM IN MICROGRAMS/M\*\*3 \*\*

NETWORK

GROUP ID ZFLAG)	NETWORK OF TYPE GRID-ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL,
ALL 298.65,	1ST HIGHEST VALUE IS 0.00) DC	0.00417 AT (	450904.52, 3769273.57, 298.65,
	2ND HIGHEST VALUE IS 298.30, 0.00) DC	0.00368 AT (	450904.52, 3769256.68, 298.30,
	3RD HIGHEST VALUE IS 298.74, 0.00) DC	0.00163 AT (	450500.56, 3769279.81, 298.74,
	4TH HIGHEST VALUE IS 297.72, 0.00) DC	0.00132 AT (	451085.83, 3769299.70, 297.72,
	5TH HIGHEST VALUE IS 298.25, 0.00) DC	0.00132 AT (	451083.41, 3769345.35, 298.25,
	6TH HIGHEST VALUE IS 296.51, 0.00) DC	0.00132 AT (	451224.66, 3769252.72, 296.51,
	7TH HIGHEST VALUE IS 298.50, 0.00) DC	0.00131 AT (	451080.25, 3769366.84, 298.50,
	8TH HIGHEST VALUE IS 299.22, 0.00) DC	0.00126 AT (	450501.53, 3769327.46, 299.22,
	9TH HIGHEST VALUE IS 298.29, 0.00) DC	0.00113 AT (	450660.39, 3769097.00, 298.29,
	10TH HIGHEST VALUE IS 300.84, 0.00) DC	0.00110 AT (	450844.74, 3769482.73, 300.84,

\*\*\* RECEPTOR TYPES: GC = GRIDCART  
GP = GRIDPOLR  
DC = DISCCART  
DP = DISCPOLR

```

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*** AERMET - VERSION 16216 ***
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\*\*\* MODELOPTs: RegDEFAULT CONC ELEV URBAN ADJ\_U\*

\*\*\* Message Summary : AERMOD Model Execution \*\*\*

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)  
A Total of 2 Warning Message(s)  
A Total of 1628 Informational Message(s)  
  
A Total of 43848 Hours Were Processed  
  
A Total of 1278 Calm Hours Identified  
  
A Total of 350 Missing Hours Identified ( 0.80 Percent)

\*\*\*\*\* FATAL ERROR MESSAGES \*\*\*\*\*  
\*\*\* NONE \*\*\*

\*\*\*\*\* WARNING MESSAGES \*\*\*\*\*  
ME W186 540 MEOPEN: THRESH\_1MIN 1-min ASOS wind speed threshold used 0.50  
ME W187 540 MEOPEN: ADJ\_U\* Option for Stable Low Winds used in AERMET

\*\*\*\*\*  
\*\*\* AERMOD Finishes Successfully \*\*\*  
\*\*\*\*\*

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**APPENDIX 2.4:**  
**RISK CALCULATIONS**

**Table 1**  
**Quantification of Carcinogenic Risks and Noncarcinogenic Hazards**  
**0-2 Age Bin Exposure Scenario - Construction Activity**

Source (a)	Mass GLC		Weight Fraction (d)	Contaminant (e)	Carcinogenic Risk				Noncarcinogenic Hazards/ Toxicological Endpoints**									
	(ug/m <sup>3</sup> ) (b)	(mg/m <sup>3</sup> ) (c)			URF (ug/m <sup>3</sup> ) <sup>-1</sup> (f)	CPF (mg/kg/day) <sup>-1</sup> (g)	DOSE (mg/kg-day) (h)	RISK (i)	REL (ug/m <sup>3</sup> ) (j)	RfD (mg/kg/day) (k)	RESP (l)	CNS/PNS (m)	CV/BL (n)	IMMUN (o)	KIDN (p)	GI/LV (q)	REPRO (r)	EYES (s)
	0.00001	1.00E-08			1.00E+00	Diesel Particulate	3.0E-04	1.1E+00	7.5E-09	9.1E-10	5.0E+00	1.4E-03	2.0E-06					
TOTAL							9.1E-10		2.0E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	

0.00

\*\* Key to Toxicological Endpoints

RESP            Respiratory System  
CNS/PNS        Central/Peripheral Nervous System  
CV/BL          Cardiovascular/Blood System  
IMMUN         Immune System  
KIDN            Kidney  
GI/LV          Gastrointestinal System/Liver  
REPRO         Reproductive System (e.g. teratogenic and developmental effects)  
EYES            Eye irritation and/or other effects

Note:            Exposure factors used to calculate contaminant intake

exposure frequency (days/year)	250
exposure duration (years)	0.96
inhalation rate (L/kg-day)	1090
inhalation absorption factor	1
averaging time (years)	70
fraction of time at home	0.85
age sensitivity factor (0 to 2 years old)	10

**Table 3**  
**Quantification of Carcinogenic Risks and Noncarcinogenic Hazards**  
**2-16 Age Bin Exposure Scenario**

Source (a)	Mass GLC		Weight Fraction (d)	Contaminant (e)	Carcinogenic Risk				Noncarcinogenic Hazards/ Toxicological Endpoints**									
	(ug/m <sup>3</sup> ) (b)	(mg/m <sup>3</sup> ) (c)			URF (ug/m <sup>3</sup> ) <sup>-1</sup> (f)	CPF (mg/kg/day) <sup>-1</sup> (g)	DOSE (mg/kg-day) (h)	RISK (i)	REL (ug/m <sup>3</sup> ) (j)	RfD (mg/kg/day) (k)	RESP (l)	CNS/PNS (m)	CV/BL (n)	IMMUN (o)	KIDN (p)	GI/LV (q)	REPRO (r)	EYES (s)
	0.00001	1.00E-08			1.00E+00	Diesel Particulate	3.0E-04	1.1E+00	5.5E-09	2.4E-09	5.0E+00	1.4E-03	2.0E-06					
TOTAL					2.4E-09				2.0E-06		0.0E+00		0.0E+00		0.0E+00		0.0E+00	

0.00

\*\* Key to Toxicological Endpoints

RESP      Respiratory System  
CNS/PNS    Central/Peripheral Nervous System  
CV/BL      Cardiovascular/Blood System  
IMMUN      Immune System  
KIDN        Kidney  
GI/LV       Gastrointestinal System/Liver  
REPRO      Reproductive System (e.g. teratogenic and developmental effects)  
EYES        Eye irritation and/or other effects

Note:      Exposure factors used to calculate contaminant intake

exposure frequency (days/year)	350
exposure duration (years)	13.23
inhalation rate (L/kg-day)	572
inhalation absorption factor	1
averaging time (years)	70
fraction of time at home	0.72
age sensitivity factor (ages 2 to 16 years)	3

**Table 4**  
**Quantification of Carcinogenic Risks and Noncarcinogenic Hazards**  
**16-30 Age Bin Exposure Scenario**

Source (a)	Mass GLC		Weight Fraction (d)	Contaminant (e)	Carcinogenic Risk				Noncarcinogenic Hazards/ Toxicological Endpoints**									
	(ug/m <sup>3</sup> ) (b)	(mg/m <sup>3</sup> ) (c)			URF (ug/m <sup>3</sup> ) <sup>-1</sup> (f)	CPF (mg/kg/day) <sup>-1</sup> (g)	DOSE (mg/kg-day) (h)	RISK (i)	REL (ug/m <sup>3</sup> ) (j)	RfD (mg/kg/day) (k)	RESP (l)	CNS/PNS (m)	CV/BL (n)	IMMUN (o)	KIDN (p)	GI/LV (q)	REPRO (r)	EYES (s)
		0.00001			1.00E-08	1.00E+00	Diesel Particulate	3.0E-04	1.1E+00	2.5E-09	3.8E-10	5.0E+00	1.4E-03	2.0E-06				
<b>TOTAL</b>					3.8E-10				2.0E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	

0.00

\*\* Key to Toxicological Endpoints

RESP      Respiratory System  
CNS/PNS    Central/Peripheral Nervous System  
CV/BL      Cardiovascular/Blood System  
IMMUN      Immune System  
KIDN        Kidney  
GI/LV        Gastrointestinal System/Liver  
REPRO      Reproductive System (e.g. teratogenic and developmental effects)  
EYES        Eye irritation and/or other effects

Note:      Exposure factors used to calculate contaminant intake

exposure frequency (days/year)      350  
exposure duration (years)                14  
inhalation rate (L/kg-day)                261  
inhalation absorption factor               1  
averaging time (years)                    70  
fraction of time at home                  0.73  
age sensitivity factor (ages 16 to 30 years old)      1

**Total Risk for All Age Bins (per million)      0.004**



**Table 1**  
**Quantification of Carcinogenic Risks and Noncarcinogenic Hazards**  
**-0.25 to 0 Age Bin Exposure Scenario**

Source (a)	Mass GLC		Weight Fraction (d)	Contaminant (e)	Carcinogenic Risk				Noncarcinogenic Hazards/ Toxicological Endpoints**									
	(ug/m <sup>3</sup> ) (b)	(mg/m <sup>3</sup> ) (c)			URF (ug/m <sup>3</sup> ) <sup>-1</sup> (f)	CPF (mg/kg/day) <sup>-1</sup> (g)	DOSE (mg/kg-day) (h)	RISK (i)	REL (ug/m <sup>3</sup> ) (j)	RfD (mg/kg/day) (k)	RESP (l)	CNS/PNS (m)	CV/BL (n)	IMMUN (o)	KIDN (p)	GI/LV (q)	REPRO (r)	EYES (s)
	0.00001	1.00E-08			1.00E+00	Diesel Particulate	3.0E-04	1.1E+00	3.5E-09	1.1E-10	5.0E+00	1.4E-03	2.0E-06					
<b>TOTAL</b>							1.1E-10			2.0E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	

\*\* Key to Toxicological Endpoints

RESP            Respiratory System  
CNS/PNS        Central/Peripheral Nervous System  
CV/BL          Cardiovascular/Blood System  
IMMUN         Immune System  
KIDN            Kidney  
GI/LV          Gastrointestinal System/Liver  
REPRO         Reproductive System (e.g. teratogenic and developmental effects)  
EYES            Eye irritation and/or other effects

Note:            Exposure factors used to calculate contaminant intake

exposure frequency (days/year)            350  
exposure duration (years)                    0.25  
inhalation rate (L/kg-day)                    361  
inhalation absorption factor                    1  
averaging time (years)                        70  
fraction of time at home                       0.85  
age sensitivity factor (age third trimester)    10

**Table 2**  
**Quantification of Carcinogenic Risks and Noncarcinogenic Hazards**  
**0-2 Age Bin Exposure Scenario**

Source (a)	Mass GLC		Weight Fraction (d)	Contaminant (e)	Carcinogenic Risk				Noncarcinogenic Hazards/ Toxicological Endpoints**									
	(ug/m <sup>3</sup> ) (b)	(mg/m <sup>3</sup> ) (c)			URF (ug/m <sup>3</sup> ) <sup>-1</sup> (f)	CPF (mg/kg/day) <sup>-1</sup> (g)	DOSE (mg/kg-day) (h)	RISK (i)	REL (ug/m <sup>3</sup> ) (j)	RfD (mg/kg/day) (k)	RESP (l)	CNS/PNS (m)	CV/BL (n)	IMMUN (o)	KIDN (p)	GI/LV (q)	REPRO (r)	EYES (s)
	0.00001	1.00E-08			1.00E+00	Diesel Particulate	3.0E-04	1.1E+00	1.0E-08	2.7E-09	5.0E+00	1.4E-03	2.0E-06					
TOTAL					2.7E-09				2.0E-06		0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	

\*\* Key to Toxicological Endpoints

RESP            Respiratory System  
CNS/PNS        Central/Peripheral Nervous System  
CV/BL          Cardiovascular/Blood System  
IMMUN         Immune System  
KIDN            Kidney  
GI/LV          Gastrointestinal System/Liver  
REPRO         Reproductive System (e.g. teratogenic and developmental effects)  
EYES            Eye irritation and/or other effects

Note:            Exposure factors used to calculate contaminant intake

exposure frequency (days/year)	350
exposure duration (years)	2
inhalation rate (L/kg-day)	1090
inhalation absorption factor	1
averaging time (years)	70
fraction of time at home	0.85
age sensitivity factor (0 to 2 years old)	10

**Table 3**  
**Quantification of Carcinogenic Risks and Noncarcinogenic Hazards**  
**2-16 Age Bin Exposure Scenario**

Source (a)	Mass GLC		Weight Fraction (d)	Contaminant (e)	Carcinogenic Risk				Noncarcinogenic Hazards/ Toxicological Endpoints**									
	(ug/m <sup>3</sup> ) (b)	(mg/m <sup>3</sup> ) (c)			URF (ug/m <sup>3</sup> ) <sup>-1</sup> (f)	CPF (mg/kg/day) <sup>-1</sup> (g)	DOSE (mg/kg-day) (h)	RISK (i)	REL (ug/m <sup>3</sup> ) (j)	RfD (mg/kg/day) (k)	RESP (l)	CNS/PNS (m)	CV/BL (n)	IMMUN (o)	KIDN (p)	GI/LV (q)	REPRO (r)	EYES (s)
	0.00001	1.00E-08			1.00E+00	Diesel Particulate	3.0E-04	1.1E+00	5.5E-09	2.5E-09	5.0E+00	1.4E-03	2.0E-06					
<b>TOTAL</b>					2.5E-09				2.0E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	

\*\* Key to Toxicological Endpoints

RESP            Respiratory System  
CNS/PNS        Central/Peripheral Nervous System  
CV/BL          Cardiovascular/Blood System  
IMMUN         Immune System  
KIDN            Kidney  
GI/LV          Gastrointestinal System/Liver  
REPRO         Reproductive System (e.g. teratogenic and developmental effects)  
EYES            Eye irritation and/or other effects

Note:            Exposure factors used to calculate contaminant intake

exposure frequency (days/year)	350
exposure duration (years)	14
inhalation rate (L/kg-day)	572
inhalation absorption factor	1
averaging time (years)	70
fraction of time at home	0.72
age sensitivity factor (ages 2 to 16 years)	3

**Table 4**  
**Quantification of Carcinogenic Risks and Noncarcinogenic Hazards**  
**16-30 Age Bin Exposure Scenario**

Source (a)	Mass GLC		Weight Fraction (d)	Contaminant (e)	Carcinogenic Risk				Noncarcinogenic Hazards/ Toxicological Endpoints**									
	(ug/m <sup>3</sup> ) (b)	(mg/m <sup>3</sup> ) (c)			URF (ug/m <sup>3</sup> ) <sup>-1</sup> (f)	CPF (mg/kg/day) <sup>-1</sup> (g)	DOSE (mg/kg-day) (h)	RISK (i)	REL (ug/m <sup>3</sup> ) (j)	RfD (mg/kg/day) (k)	RESP (l)	CNS/PNS (m)	CV/BL (n)	IMMUN (o)	KIDN (p)	GI/LV (q)	REPRO (r)	EYES (s)
		0.00001			1.00E-08	1.00E+00	Diesel Particulate	3.0E-04	1.1E+00	2.5E-09	3.8E-10	5.0E+00	1.4E-03	2.0E-06				
<b>TOTAL</b>					3.8E-10				2.0E-06	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

0.00

\*\* Key to Toxicological Endpoints

RESP      Respiratory System  
CNS/PNS    Central/Peripheral Nervous System  
CV/BL      Cardiovascular/Blood System  
IMMUN      Immune System  
KIDN        Kidney  
GI/LV        Gastrointestinal System/Liver  
REPRO      Reproductive System (e.g. teratogenic and developmental effects)  
EYES        Eye irritation and/or other effects

Note:      Exposure factors used to calculate contaminant intake

exposure frequency (days/year)      350  
exposure duration (years)                14  
inhalation rate (L/kg-day)                261  
inhalation absorption factor               1  
averaging time (years)                    70  
fraction of time at home                  0.73  
age sensitivity factor (ages 16 to 30 years old)      1

**Total Risk for All Age Bins (per million)      0.006**

**Table 5**  
**Quantification of Carcinogenic Risks and Noncarcinogenic Risks**  
**25-Year Worker Exposure Scenario**

	Source (a)	Mass GLC		Weight Fraction (d)	Contaminant (e)	Carcinogenic Risk				Noncarcinogenic Hazards/ Toxicological Endpoints**																											
		(b)	(c)			URF ( $\mu\text{g}/\text{m}^3\text{-}1$ ) (f)	CPF ( $\text{mg}/\text{kg}/\text{day})^{-1}$ (g)	DOSE ( $\text{mg}/\text{kg}\text{-day}$ ) (h)	RISK (i)	REL ( $\mu\text{g}/\text{m}^3$ ) (j)	RfD ( $\text{mg}/\text{kg}/\text{day}$ ) (k)	RESP (l)	CNS/PNS (m)	CV/BL (n)	IMMUN (o)	KIDN (p)	GI/LV (q)	REPRO (r)	EYES (s)																		
		( $\mu\text{g}/\text{m}^3$ )	( $\text{mg}/\text{m}^3$ )																																		
1	Diesel Particulates	4.17E-03	4.17E-06	1.00E+00	Diesel Particulate	3.0E-04	1.1E+00	6.6E-07	2.5E-07	5.0E+00	1.4E-03	8.3E-04																									
TOTAL						2.5E-07 0.25				8.3E-04   0.0E+00   0.0E+00   0.0E+00   0.0E+00   0.0E+00   0.0E+00   0.0E+00   0.0E+00																											

\*\* Key to Toxicological Endpoints

RESP	Respiratory System	exposure frequency (days/year)	250
CNS/PNS	Central/Peripheral Nervous System	exposure duration (years)	25
CV/BL	Cardiovascular/Blood System	inhalation rate (L/kg-day)	230
IMMUN	Immune System	inhalation absorption factor	1
KIDN	Kidney	averaging time (years)	70
GI/LV	Gastrointestinal System/Liver		
REPRO	Reproductive System (e.g. teratogenic and developmental effects)		
EYES	Eye irritation and/or other effects		

Note: Exposure factors used to calculate contaminant intake

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May 20, 2022

Tracy Chu  
T&B Planning, Inc.  
3200 El Camino Real, Suite 100  
Irvine, California 92602

RE: Cultural Resources Records Search Results for the 5355 Airport Drive Project, Ontario, California

Dear Ms. Chu:

An archaeological records search has been completed for the 5355 Airport Drive Project located at 5355 Airport Drive in the city of Ontario, San Bernardino County, California. As part of the environmental review process, Brian F. Smith and Associates, Inc. reviewed the results of the records search from the South Central Coastal Information Center at California State University, Fullerton. The records search encompassed an area of one-half mile surrounding the project.

Based upon the records search results, three resources have been recorded within one-half mile of the project, none of which are within the project boundaries. The resources include a historic railroad track alignment, a historic foundation, and a historic transmission line alignment.

The records search results also indicate that six previous studies have been conducted within one-half mile of the project, one of which (Taylor 1993) overlaps the western third of the subject property. The study, entitled "Archaeological Reconnaissance Survey Report, Middle Lugo-Mira Loma 500KV T/L Right-Of-Way Between Concours and Jurupa Avenue, Ontario, California," did not result in the identification of any cultural resources within the subject property.

The full results of the completed records search are attached to this letter report (Attachment A). Please contact us should you have any questions or require additional study for this project.

Regards,

Brian F. Smith  
BFS:ag

Attachment:

Attachment A – Archeological Records Search Results

**ATTACHMENT A**

**Archaeological Records Search Results**



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**BRIAN F. SMITH and ASSOCIATES**

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**CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEMS  
RECORDS SEARCH**

**Company:** Brian F. Smith and Associates  
**Processed By:** Andrew Garrison  
**Date Processed:** April 21, 2022  
**Project Identification:** 5355 Airport Dr 22-144  
**Information Center:** South Central Coastal Information Center  
**Search Radius:** One-Half Mile

**Historical Resources:**

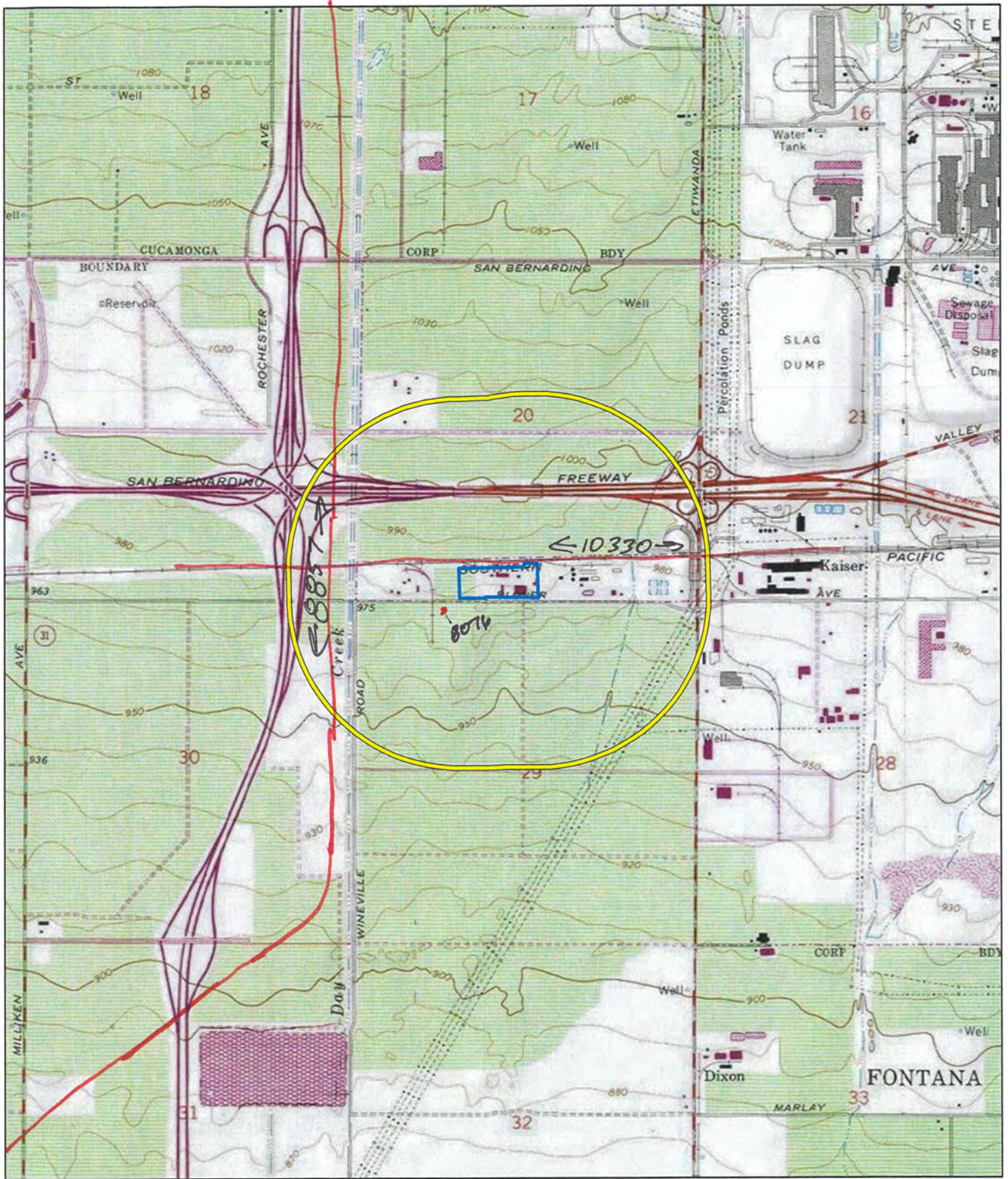
Trinomial and Primary site maps have been reviewed. All sites within the project boundaries and the specified radius of the project area have been reviewed. Copies of the site record forms have been reviewed for all recorded sites.

There are three resources located within one-half-mile of the current project area, none of which are located within the subject property.

**Previous Survey Report Boundaries:**

Project boundary maps have been reviewed. National Archaeological Database (NADB) citations for reports within the project boundaries and within the specified radius of the project area have been reviewed.

There are six reports within one-half-mile of the current project area, one of which (NADB 1062979) overlaps the current project.



- Project
- Half Mile Radius

5355 Airport Drive (22-144)  
 USGS Guasti Quadrangle  
 (7.5-minute series)

Resumes  
 1 of 1



1:24,000  
 AJG BFSA: 4/18/2022  
 Item B - 891 of 3096

## Resource List

5355 Airport Dr 22-144

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-36-008076	CA-SBR-008076H	Resource Name - LML-1	Structure	Historic	AH02	1993 (TAYLOR, THOMAS, Southern California Edison)	SB-02979
P-36-008857	CA-SBR-008857H	Resource Name - So. Sierras Power Line; Resource Name - Lytle Canyon Transmission Lines; PSBR-37H; SRI-1607 (Update)	Site	Historic	HP16	1986 (John F. Elliott, ECOS); 1997 (Philip de Barros and Joel Paulson, Professional Archaeological Services); 2010 (J. Coleman, Solano Archaeological Services); 2011 (Joshua TramPier, SRI); 2016 (Audry Williams, SCE)	SB-03418, SB-03530, SB-07960
P-36-010330	CA-SBR-010330H	Resource Name - Union Pacific Railroad; Other - Southern Pacific Railroad; Other - West Line Basin Alignment; Other - Union Pacific Railroad Crossing at Anderson Street; Other - 19-186112	Structure, Object	Historic	AH07; HP39	1999 (S. Ashkar, Jones & Stokes Associates, Inc.); 2002 (Goodwin, R., LSA Associates, Inc.); 2008 (Harper, C.D., SWCA); 2010 (Tibbet, C., LSA Associates, Inc.); 2012 (Paul, Daniel D., ICF International)	SB-04335, SB-05495, SB-05614, SB-06720, SB-07451, SB-07666, SB-07955

## ARCHAEOLOGICAL SITE RECORD

Permanent Trinomial: CA-SBR-8076H  
 Other Designation: LML-1

Primary # P36-008076

Page 1 of 4

- 
1. County: San Bernardino
  2. USGS Quad: Guasti (7.5) X (15) Photorevised 1973
  3. UTM Coordinates: Zone 11 M Easting 450504 M Northing 3769040
  4. Township 1 S. Range 6 W.; NW 1/4 of NE 1/4 of NW of Section 29  
Base Meridian San Bernardino 5. Elevation 980'
  6. Map Coordinates: 450507 mmS 3769040 mmE (from NW map corner)
  7. Location: Site is located about 40 meters south of Airport Dr. (Slover Ave.) and 7/10 mile west of Etiwanda Ave. A N/S industrial railroad siding runs about 20 meters west of site.
  8. Prehistoric  Historic  Protohistoric
  9. Site Description: 12 foot square structural foundation of parent rock and concrete. Two mounds of asphalt also present. Site is on margin of abandoned vinyard and is overlooked by 4 large eucalyptus trees.
  10. Area 20 M(length)x 20 M(width) 400 M<sup>2</sup>  
Method of determination: Paced
  11. Depth: Unknown Method of Determination Surface observation.
  12. Features: Partially buried structural foundation of parent rock and concrete. Foundation is raised-side footing 12" wide x 15" to 24" high above ground. Possible 3' wide porch on south side; 3' wide door entrance on north side. 8" x 10" wood post remnants at mid-point on east and west sides in footing. Asphalt mounds are on north side of structure.
  13. Artifacts: None observed.
  14. Non-artifactual Constituents and Faunal Remains: None observed.
  15. Date Recorded: 23 July 1993 16. Recorder: Thomas T. Taylor

ARCHAEOLOGICAL SITE RECORD

Date: 23 Mo. 07 Yr. 93  
Permanent Trinomial: BR-807641  
Other Designation: LML-1  
PRIMARY# P36-008076

Page 2 of 4

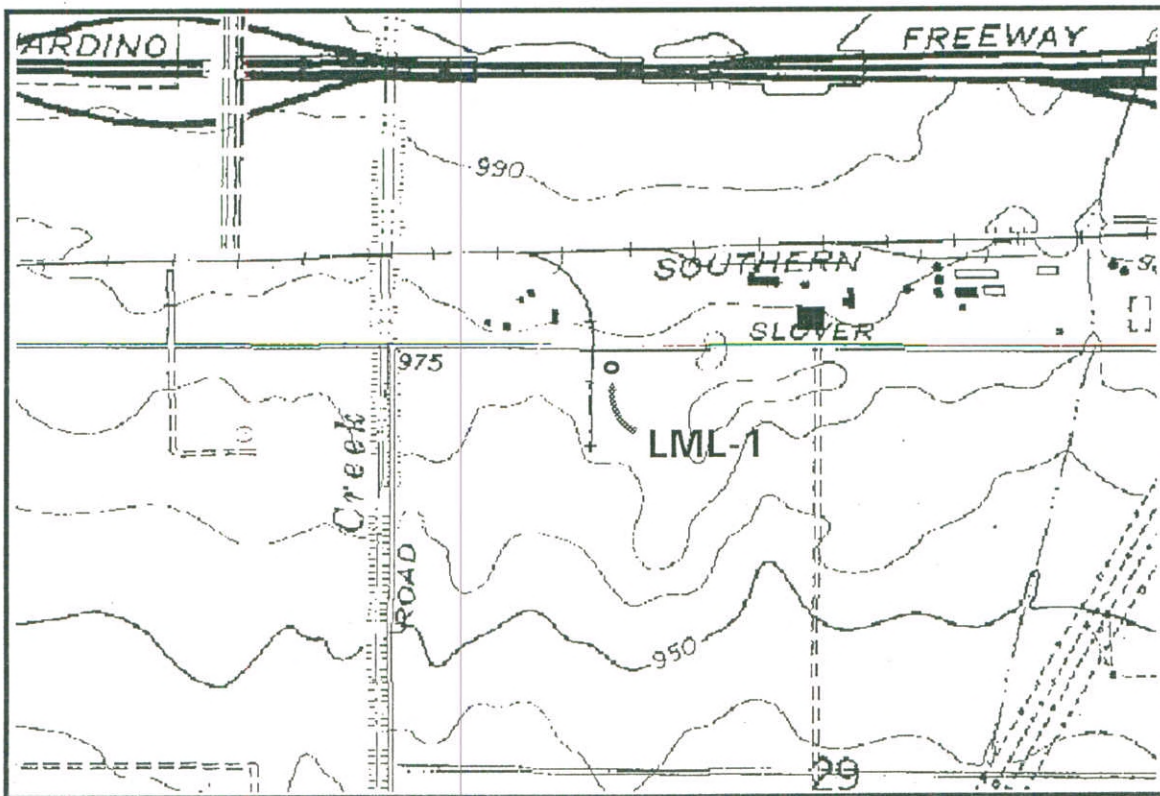
- 17. Affiliation and Address: Southern California Edison Company, Environmental Affairs Division, P.O. Box 800, Rosemead, CA 91770.
- 18. Human Remains: None observed.
- 19. Site Disturbances: Erosion.
- 20. Nearest Water  
(type, distance and direction) Ephemeral creeks within about 1 to 1/2 mile east or west.
- 21. Vetetation Community (site vicinity): Vinyard, domestic grapes.
- 22. Vegetation (on site): European grasses (weeds).
- 23. Site Soil: Light brown silty loam.      24. Surrounding Soil: Same
- 25. Geology: Alluvium, colluvium.      26. Landform: Level
- 27. Slope: Very gradual to south      28. Exposure: Open
- 29. Landowner &/or Tenants (incl. address): Southern California Edison Company Real Properties and Administrative Services Department, Ontario, California.
- 30. Remarks: Records search by San Bernardino County Information Center did not show any historic structures in this location on any of the old U.S.G.S. sheets or survey plats.
- 31. References: \_\_\_\_\_
- 32. Name of Project: Middle Lugo-Mira Loma 500 Kv T/L ROW alternate use evaluation.
- 33. Type of Investigation: Reconnaissance (partial) pedestrian survey.
- 34. Site Accession Number: N/A Curated at: N/A
- 35. Photos: None

ARCHAEOLOGICAL SITE LOCATION MAP

Date: 23 Mo. 07 Yr. 93  
Permanent Trinomial: CA-SBr-H 8076H  
Other Designation: LML-1  
PRIMARY# P36-008076

Page 3 of 4

PORTION OF GUAISTI '7.5, PHOTOREVISED 1973

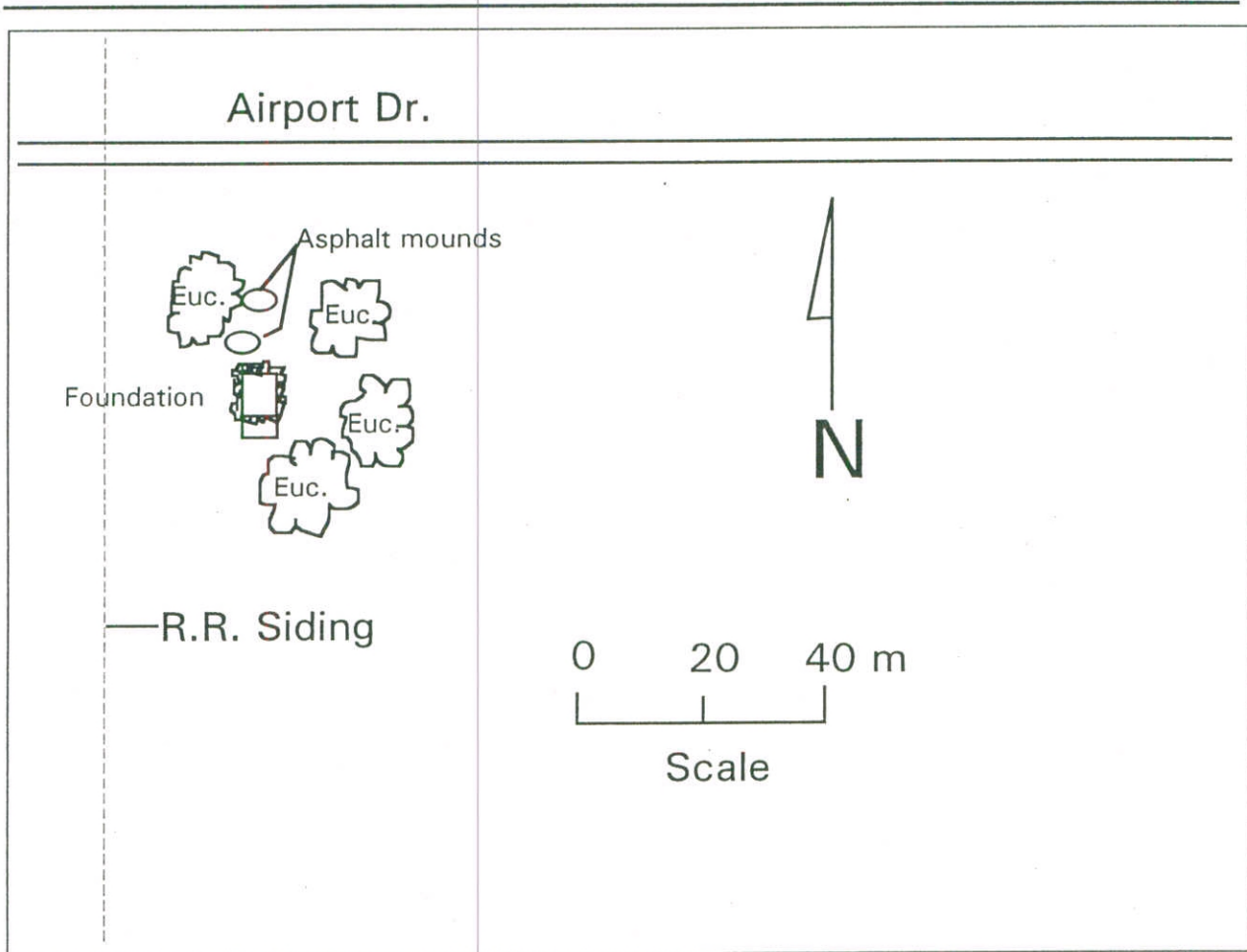


ARCHAEOLOGICAL SITE MAP

Date: 23 Mo. 07 Yr. 93  
Permanent Trinomial: SBR-8076H  
Other Designation: LML-1

PRIMARY # P36-008076

Page 4 of 4



# PRIMARY RECORD

Primary#: P-36-008857 UPDATE

HRI #: \_\_\_\_\_

Trinomial: CA-SBR-8857H

NRHP Status Code: 3S

Other Listings: \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_

Page 1 of 16 \*Resource Name or # Southern California Edison Company's Lugo-Mira Loma No. 1 500kV Transmission Line P1. Other Identifier: Lugo-Rancho Vista 500kV and Rancho Vista-Mira Loma 500kV Transmission Line

\*P2. Location:  Not for Publication  Unrestricted

\*a. County San Bernardino County

\*b. USGS 7.5' Quad: Silverwood Lake (1996), Cajon (1996), Devor (1996), Cucamonga Peak (1996), Guasti (1978)

Date: Various T3N: R5W; Sec 9, 10, 11, 16, 17, 19; T3N: R6W; Sec 1, 12, 13, 24, 25, 36; T1N: R6W; Sec 6, 7, 17, 18, 19, 20, 21, 22, 23, 24, 30, 31; T1N: R7W; Sec 36; T2N: R7W; Sec 1, 2; T2S: R7W; Sec 11, 12; S.B.B.M.

c. Address: n/a City: n/a Zip: n/a

d. UTM: Zone 11S; 466081 mE/ 3802847 mN at Lugo Substation; 459225 mE/ 3781869 mN at HWY 15 Crossing; 450043 mE/ 3777419 mN at HWY 210 Crossing; 450869 mE/ 3771942 mN at Rancho Vista Substation; 447814 mE/ 3763193 mN at Mira Loma Substation;

e. Other Locational Data: The Lugo-Mira Loma 500kV Transmission Line begins at the Lugo Substation located at 6655 Escodido Street, Hesperia, CA 92345 and travels 35 miles southwest to Mira Loma Substation located at 13568 Milliken Avenue, Ontario, CA 91761.

\*P3a. Description: The 1986 DPR describes this resources as the Lytle Canyon Transmission Lines and discusses three separate transmission lines. Two of the lines are Los Angeles Department of Water and Power (LADWP) Boulder-Los Angeles 287.5 kV Transmission Lines constructed in 1936 to bring power from Boulder Dam in Clark County, Nevada to Los Angeles. The same 1986 DPR is also listed at the Information Center under P-36-007694. The LADWP lines are no longer part of 36-008857. The LADWP Boulder Lines have been nominated to the NRHP under criteria A and B.

The 1986 record also states the third Lytle Creek transmission line is a Southern California Edison (SCE) transmission line associated with the Lytle Creek Hydroelectric System. The 1997 updated DPR states this information is incorrect and that the Lytle Creek transmission line was removed and the Mira Loma No. 1 transmission line constructed in the same ROW in the early 1960s. This information is also incorrect.

Lugo-Mira Loma No. 1 500kV transmission line, P36-0008857, was constructed in 1969 by SCE as part of the Pacific Northwest-Pacific Southwest Intertie Project (Intertie). Please see the BSO record for additional details

\*P3b. Resource Attributes: HP11: Engineering Structure (Transmission Line)

\*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  Other (Isolates, etc.)



\*P5b. Description of Photo: 1973 view of a dead-end tower in Cajon Pass on the Mira Loma-Lugo No. 1 500kV Transmission Line. Source: SCE Photographs and Negatives collection of The Huntington Library (Call No. 11-00457 / Image No. SCE\_11\_00457). © The Huntington Library, San Marino, California.

\*P6. Date Constructed/Age and Source:  Historic, 1979. SCE Corporate Records

\*P7. Owner and Address: Southern California Edison Company, 2244 Walnut Grove Avenue, Rosemead, CA 91770

\*P8. Recorded by: Audry Williams, SCE Archaeologist and Historic-era Electrical Infrastructure Specialist

\*P9. Date Recorded: December 2016

\*P10. Survey Type: Reconnaissance

\*P10. Survey Type: Reconnaissance

\*P11. Report Citation: ICF. 2016. Cultural Resources Inventory Report for the Lugo-Mira Loma No. 3 and Lugo-Rancho Vista 500kV Transmission Line Rating Remediation Project, San Bernardino County, California. Prepared for Southern California Edison

\*Attachments:  NONE  Location Map  Continuation Sheet  Building, Structure, and Object Record

Archaeological Record  District Record  Linear Feature Record  Milling Station Record  Rock Art Record

Artifact Record  Photograph Record  Other (List):



**BUILDING, STRUCTURE, OBJECT RECORD**

\*Resource Name or # SCE Lugo-Mira Loma No. 1 500kV Transmission Line \*NRHP Status Code: 3S  
Page 2 of 16

B1. Historic Name: Southern California Edison Company's Lugo-Mira Loma No. 1 500kV Transmission Line

B2. Common Name: Lugo-Rancho Vista 500kV Transmission Line and Rancho Vista-Mira Loma 500kV Transmission Line

B3. Original Use: Electric Power Conveyance System / Transmission Line

B4. Present Use: Electric Power Conveyance System / Transmission Line

\*B5. Architectural Style: N/A – Utilitarian Electrical Engineering Structures of Lattice Steel Tower Construction

\*B6. Construction History: Constructed 1968-1969. Segmented and renamed with the construction of Rancho Vista Substation in 2007 and renamed based on the connection to new substation.

The Mira Loma-Lugo No 1. 500kV Transmission Line was constructed by SCE as part of the Intertie Project. The construction of the Intertie involved multiple companies including the Bonneville Power Administration, Portland General Electric, Pacific Gas & Electric (PG&E) and SCE. These companies together built two 500kV interconnecting high-voltage long distance transmission lines from the **Columbia River to southern California. SCE's initial portion of the two parallel 500kV lines consisted of a 114-mile line between the PG&E's Midway substation (approximately 30 miles west of Bakersfield) and the SCE's Vincent substation (approximately 30 miles north of Los Angeles).** SCE shortly thereafter built additional 500kV transmission lines to interconnect to newly constructed 500kV substations including the Vincent, Lugo and Mira Loma Substation. The Southwest phase of the Intertie Project expanded the 500kV system across the desert to Eldorado and Mojave Substations, and the Four Corners Area (Maneatis et al. 1970, Myers 1986).

The Lugo-Mira Loma 500kV transmission lines were built in the preexisting Right-of Way (ROW) of **SCE's Boulder-Chino 220kV Nos. 1 and 2 Transmission Lines. SCE's 220kV Boulder lines were constructed in 1938-40,** the portion of these lines between Lugo and Mira Loma Substations were removed and the Lugo-Mira Loma Nos. 1 and 2 500kV were constructed in the ROW. The original SCE Boulder-Chino 220kV Nos. 1 and 2 transmission lines located between Lugo Substation and Boulder Dam are still standing and have been recorded as P-36-014876. In 2007, SCE constructed the Rancho Vista Substation in Rancho Cucamonga and at that time looped the Lugo-Mira Loma No. 1 into the Rancho Vista Substation and the line name changed to Lugo-Rancho Vista 500kV and Rancho Vista-Mira Loma 500kV.

\*B7. Moved?  No  Yes  Unknown Date: \_\_\_\_\_ Original Location: N/A

\*B8. Related Features: Pacific Northwest-Pacific Southwest Intertie System

B9a. Architect: Southern California Edison Company b. Builder: Southern California Edison Company

\*B10. Significance: Theme: None Area: None Period of Significance: 1968-1969  
Property Type: Engineering Structure – Electric Power Conveyance System Applicable Criteria: NRHP/CRHR Eligible  
Extra High Voltage (EHV) Transmission Lines in the Western United States are defined as 300 to 750kV. EHV transmission lines were first constructed in the western United States in the mid-to-late 1960s to supply energy to western United States. The federal government led the planning of the Intertie and construction was split among a number of power agencies. The Intertie System is an EHV, long-distance interconnected transmission line system built to convey electricity from the Pacific Northwest to the Pacific Southwest. The Intertie allowed excess hydroelectric power from the Northwest to be sold to California by interconnecting resources between a number of public and private power agencies. Extra thermal power in Southern California could also be sent to the Northwest in the late fall and winters to supply energy there for lighting and heating. The Intertie extends from Vancouver, British Columbia, though Seattle, Washington, to Phoenix, Arizona. The first lines built as part of the Intertie system consists of two Alternate Current (AC) 500kV lines and a Direct Current (DC) 775kV line from the Pacific Northwest to California, and a 345kV line from Mead Substation to Liberty Substation near Phoenix, Arizona. See Continuation Sheet

B11. Additional Resource Attributes: None.

\*B12. References: Maneatis, J. A., E. J. Hubacher, W.N. Rothenbuhler, and J. Sabath. 1970. *500kV Series Capacitor Installations in California*. Paper 70 TP 580-PWR at the IEEE Summer Power Meeting and EHV Conference.

Myers, William A. 1986. *Iron Men and Copper Wires: A Centennial History of the Southern California Edison Company*. Glendale: Trans-Anglo Books.

Tinsley Becker, Wendy L., Audry Williams, Thomas L. Jackson, and Adam Sriro. 2015. *Historic-Era Electrical Infrastructure Management Program: A Program for the Identification, Review, Exemption, and Treatment of Generating Facilities, Transmission Lines, Subtransmission Lines, Distribution Lines, and Substations within the Southern California Edison Company's Service Territory*. On file at Southern California Edison.

B13. Remarks: None.

\*B14. Evaluator: Audry Williams, SCE Senior Archaeologist and Historic-era Electrical Infrastructure Specialist

\*Date of Evaluation: December 2016

Official Comments:

See Continuation Sheet and Sketch Map

\*Resource Name or # SCE Lugo-Mira Loma No. 1 500kV Transmission Line \*NRHP Status Code: 3S  
\*Recorded by: Audry Williams, SCE Senior Archaeologist \*Date: December 2016 ■ Continuation  Update  
Page 3 of 16

\*B10. Significance: (Continued)

Three political agreements approved in 1964 provided for the construction of the Intertie: the Columbia River Treaty, the Pacific Northwest Coordination Agreement, and the Pacific Northwest Consumer Power Preference Act. The United States Congress ratified the Columbia River Treaty, authorizing construction of three dams in the Canadian Columbia River Basin, which would generate additional hydropower downstream in the American Northwest. As a result of the treaty, the Pacific Northwest Coordination Agreement was also negotiated to establish rules for the coordination of the Columbia River Power System. The United States Congress additionally approved the Pacific Northwest Consumer Power Preference Act that authorized sales over the Intertie of power surplus to the Northwest utilities, so that the Northwest utilities would be guaranteed power ahead of the Southwest ones. Through these agreements, excess power from the Northwest utilities, in addition to year-round power allotted to Canada from the dams, could be sold to utilities in the American Southwest.

Preceding the 1964 agreements, the United States Secretary of the Interior, Stewart Udall, appointed a Special Task Force to study the idea of the Intertie in 1960. At this time, direct current (DC), or electric current travelling in one direction on two conductors, was considered the best way to transmit electricity over long distances. DC transmission lines allow high voltage transmission over smaller conductors and lower voltage loss than in similar alternating current (AC) lines, but no utility in the world had used high voltage direct current (HVDC) transmission for the distance planned in the Intertie.

The Lugo-Mira Loma No. 1 500kV Transmission Line may be regarded as eligible for listing to the National Register under *National Register/California Register Criteria A/1 (events/patterns of events) for an association with SCE's 500kV system* within the period of significance (POS). **SCE's established a POS for 500kV transmission line technology as 1965-1970**, which covers its participation in the Intertie System (Tinsley-Becker et al. 2015). The system is one of the earliest 500kV transmission Line systems **built to convey power to SCE's service territory in the Southern California region, and at the time of construction, was** considered part of the Intertie system that formed the early EHV grid in California, the Pacific Northwest, and the Southwestern United States. The POS for the Lugo-Mira Loma No. 1 500kV transmission line is circa 1968-1969.

No information was identified for the Lugo-Mira Loma No. 1 500kV Transmission Line to support a positive eligibility conclusion under *National Register/California Register Criterion B/1* (important persons).

The Lugo-Mira Loma No. 1 500kV Transmission Line is eligible under *National Register/California Register Criteria C/1* (Design/Construction) for representing an important, innovative, or masterfully designed of 500kV transmission line. The EHV Intertie system was planned and constructed in less than 10 years and included the first EHVAC and EHVDC transmission lines in the United States as well as the first 500kV Substations. The Lugo-Mira Loma No. 1 500kV transmission line was constructed as part of this effort important and innovating design of an EHV transmission system in the United States.

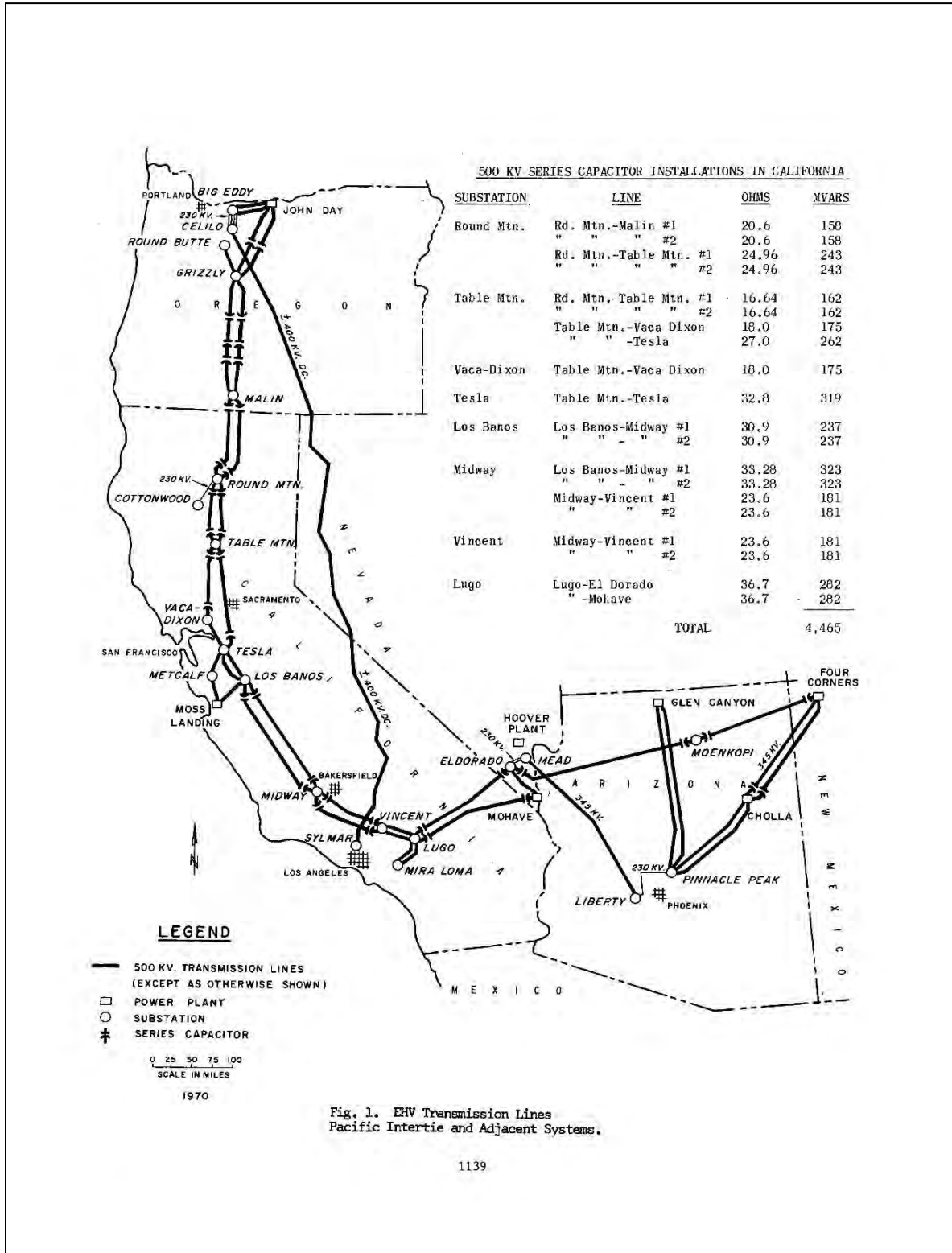
No information was identified as part of this documentation and evaluation effort to indicate that the Lugo-Mira Loma No. 1 500kV Transmission Line would have the potential to yield additional information which could be considered important to local, state, or national history. Therefore, the line is not eligible under *National Register/California Register Criteria D/4* (Information Potential).

NRHP Criteria Consideration G

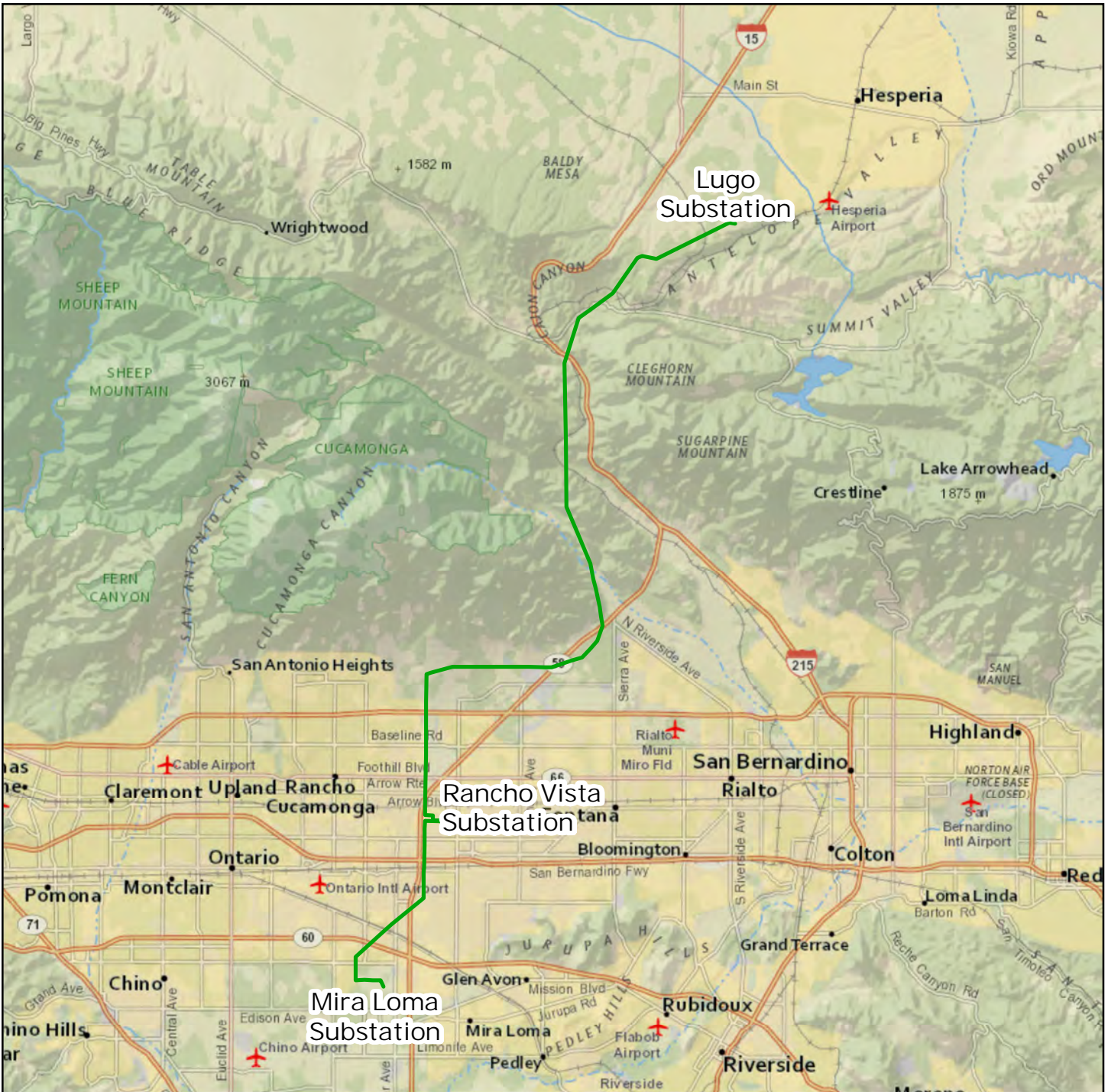
In December 2016, at the initial evaluation of the Lugo-Mira Loma No. 1 500kV Transmission Line it is two years away from becoming 50 years old, the age of eligibility set by the NRHP, yet it is within the same historical context as the Intertie, which has already passed the 50-year mark. The Lugo-Mira Loma No. 1 500kV Transmission Line is a significant example of interconnection using 500kV lines that achieved engineering feats of transmitting EHV **over longer distances than SCE's previously established 220kV system**. The Intertie connected the SCE grid north to the Pacific Northwest utilities and their hydroelectric sources of power. Within the established historical context the Lugo-Mira Loma No. 1 500kV Transmission Line meets NRHP Criteria Consideration G. It has achieved significance within 50 years as an EHV transmission line and interconnection system that helped SCE meet the demand for electricity in the late 1960s to 1970s, and contributed to the further industrialization of the Southern California region and the development of the power grid in the Southwestern United States.

\*Resource Name or # SCE Lugo-Mira Loma No. 1 500kV Transmission Line \*NRHP Status Code: 3S  
 \*Recorded by: Audry Williams, SCE Senior Archaeologist \*Date: December 2016 ■ Continuation □ Update  
 Page 4 of 16

1970 Diagram Map showing the general arrangement and location of 500kV transmission lines and substations of the Pacific Intertie and Adjacent Systems. Source: "500kV Series Capacitor Installations in California" IEEE December 1970.



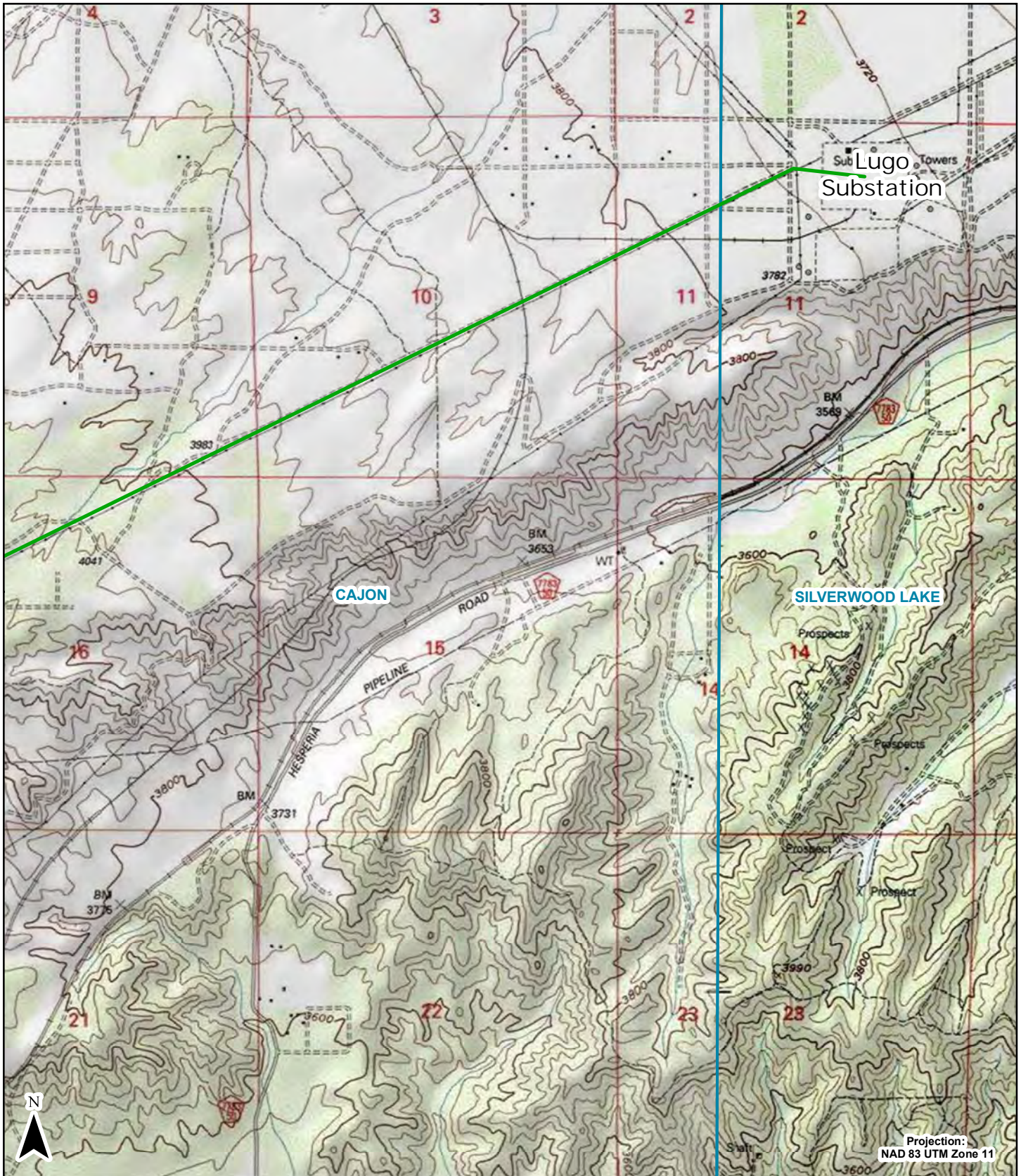
# SKETCH MAP



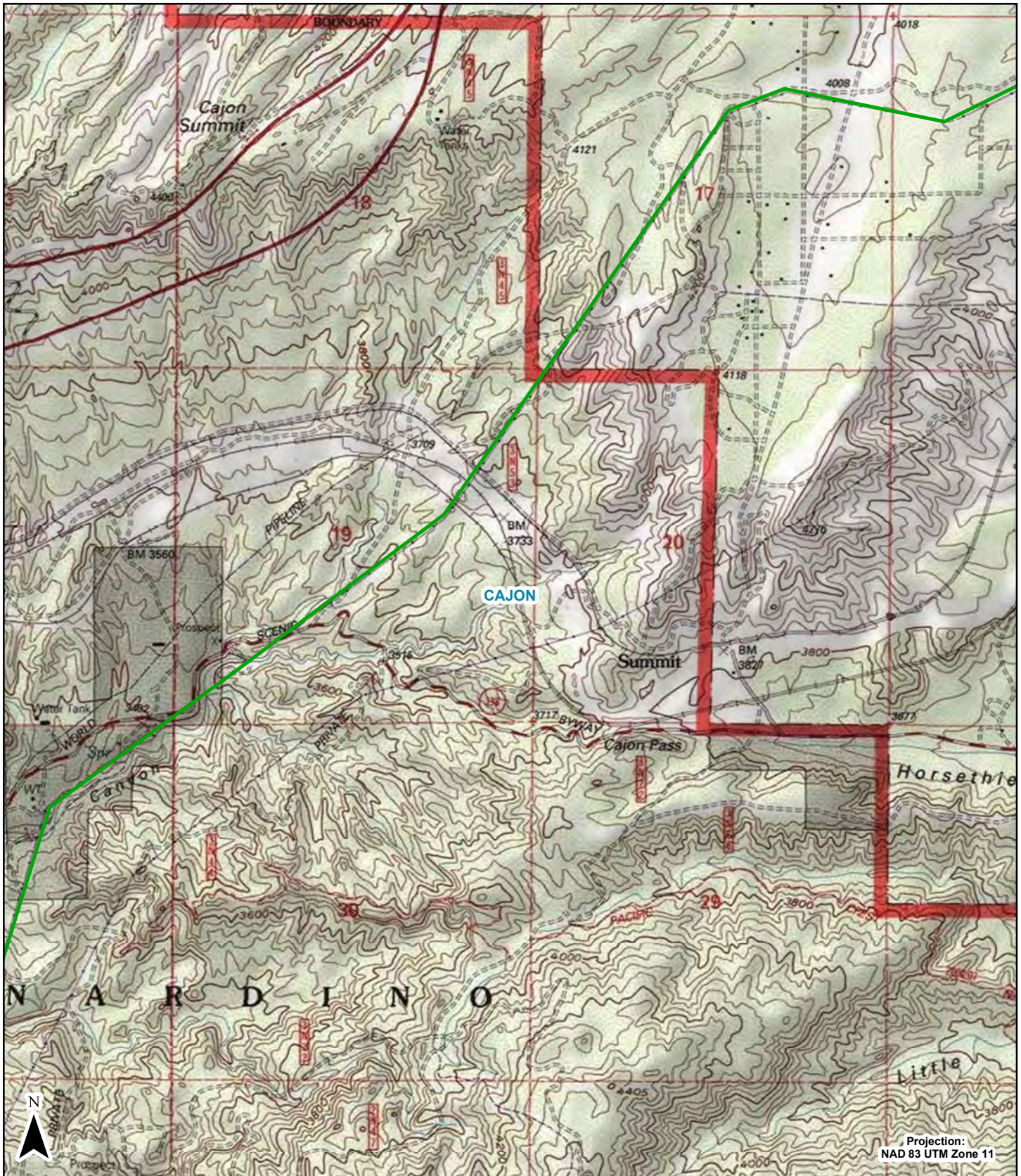
Projection: NAD 83 UTM Zone 11



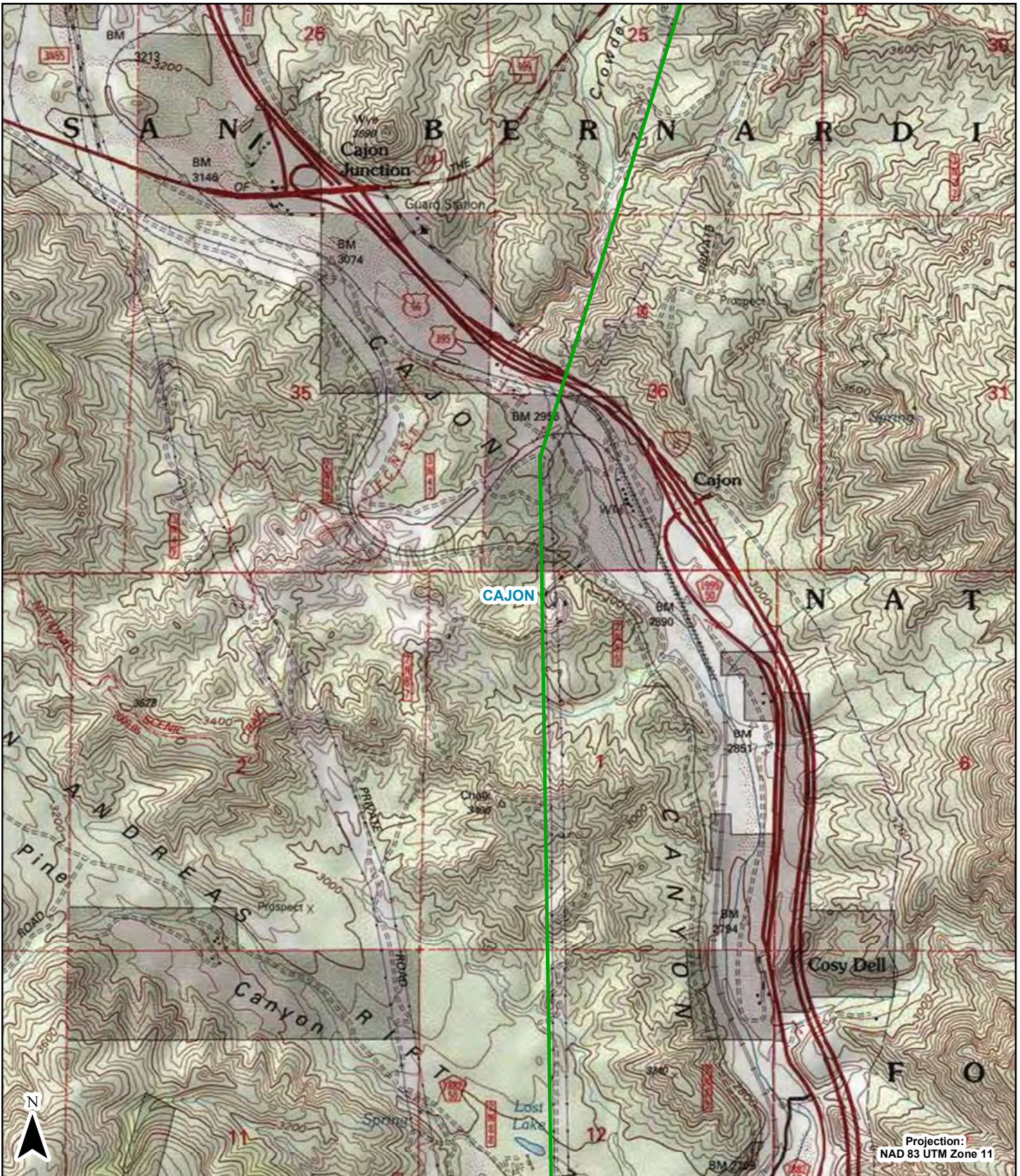
# LOCATION MAP



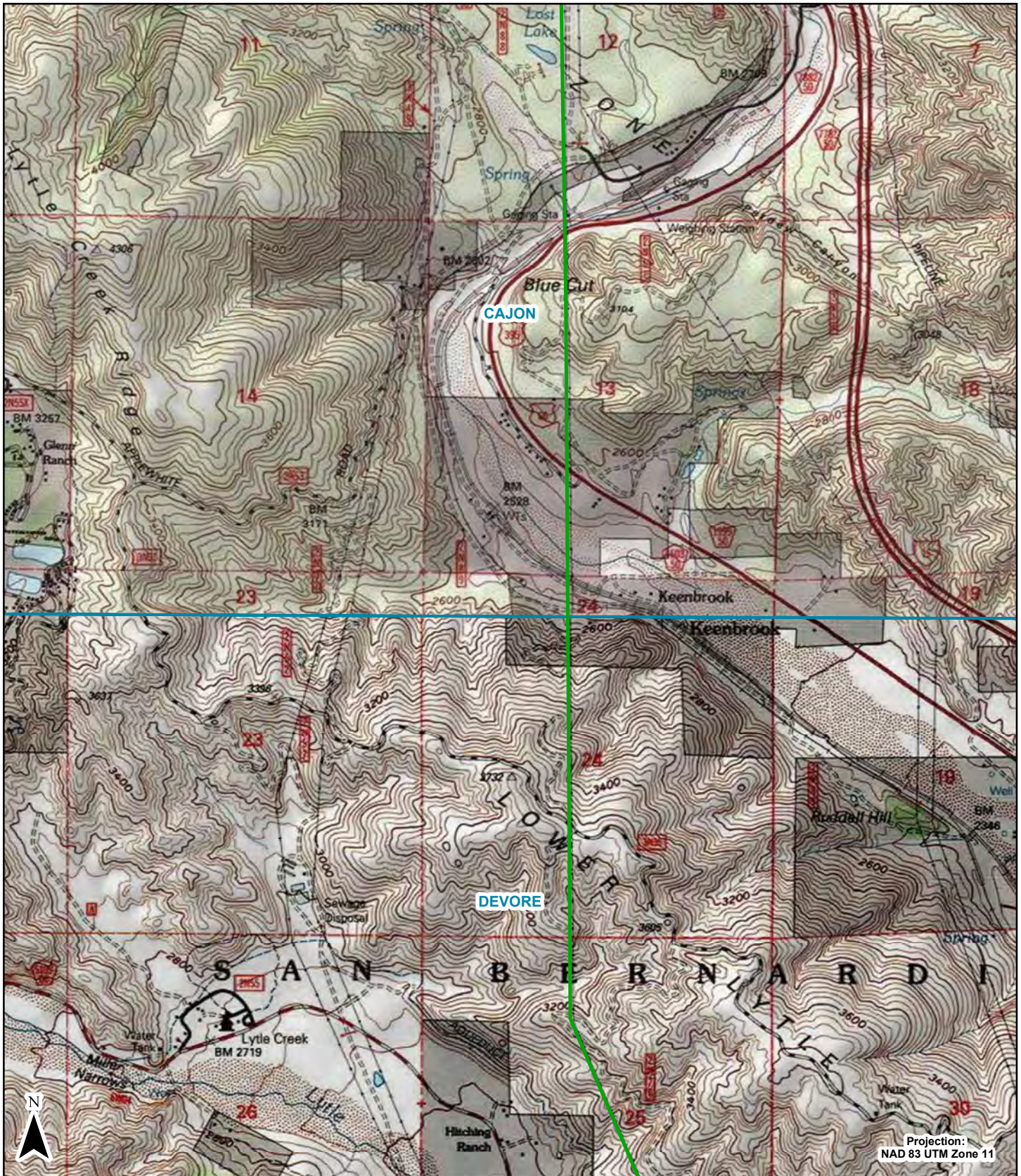
# LOCATION MAP



# LOCATION MAP

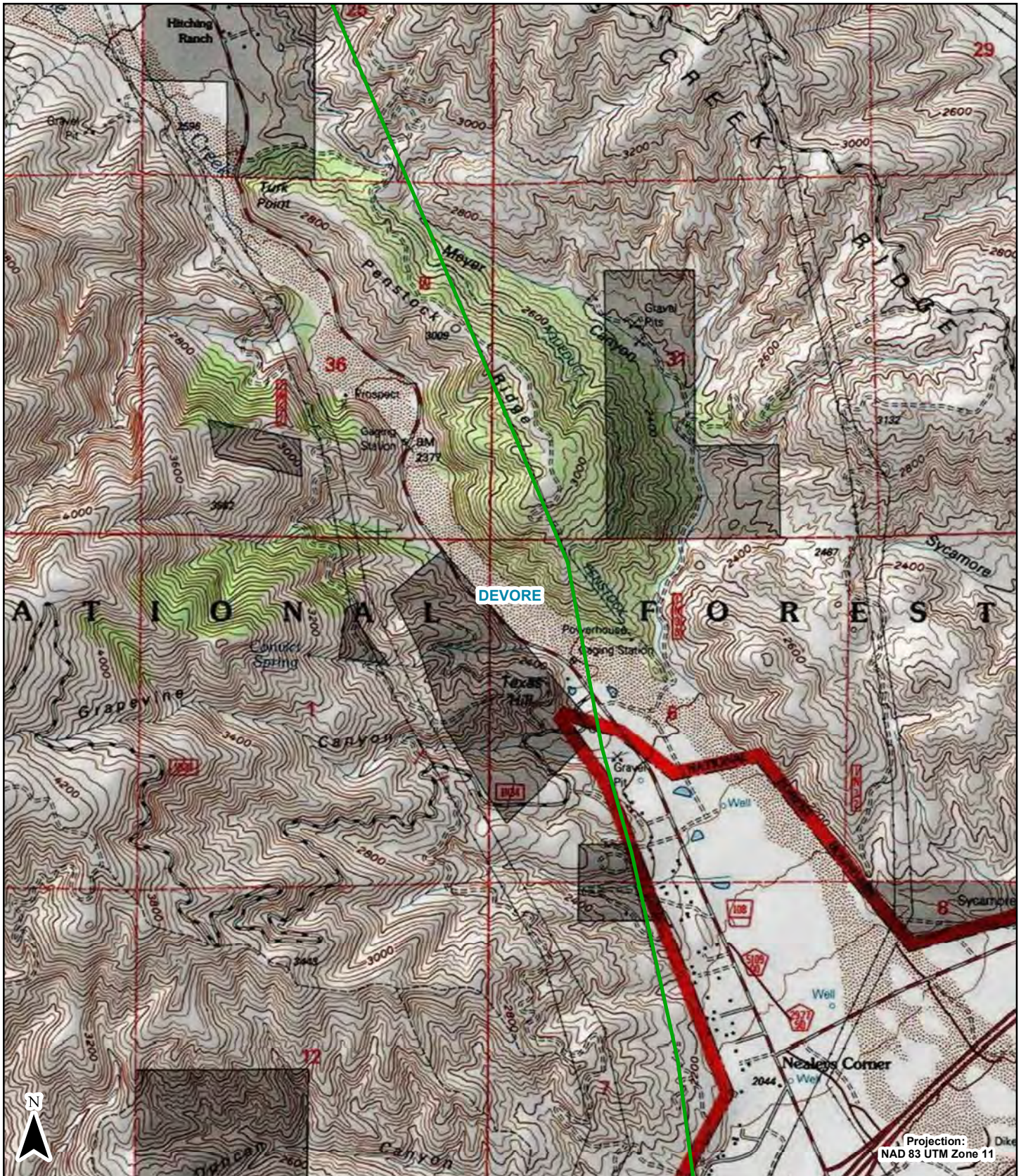


# LOCATION MAP

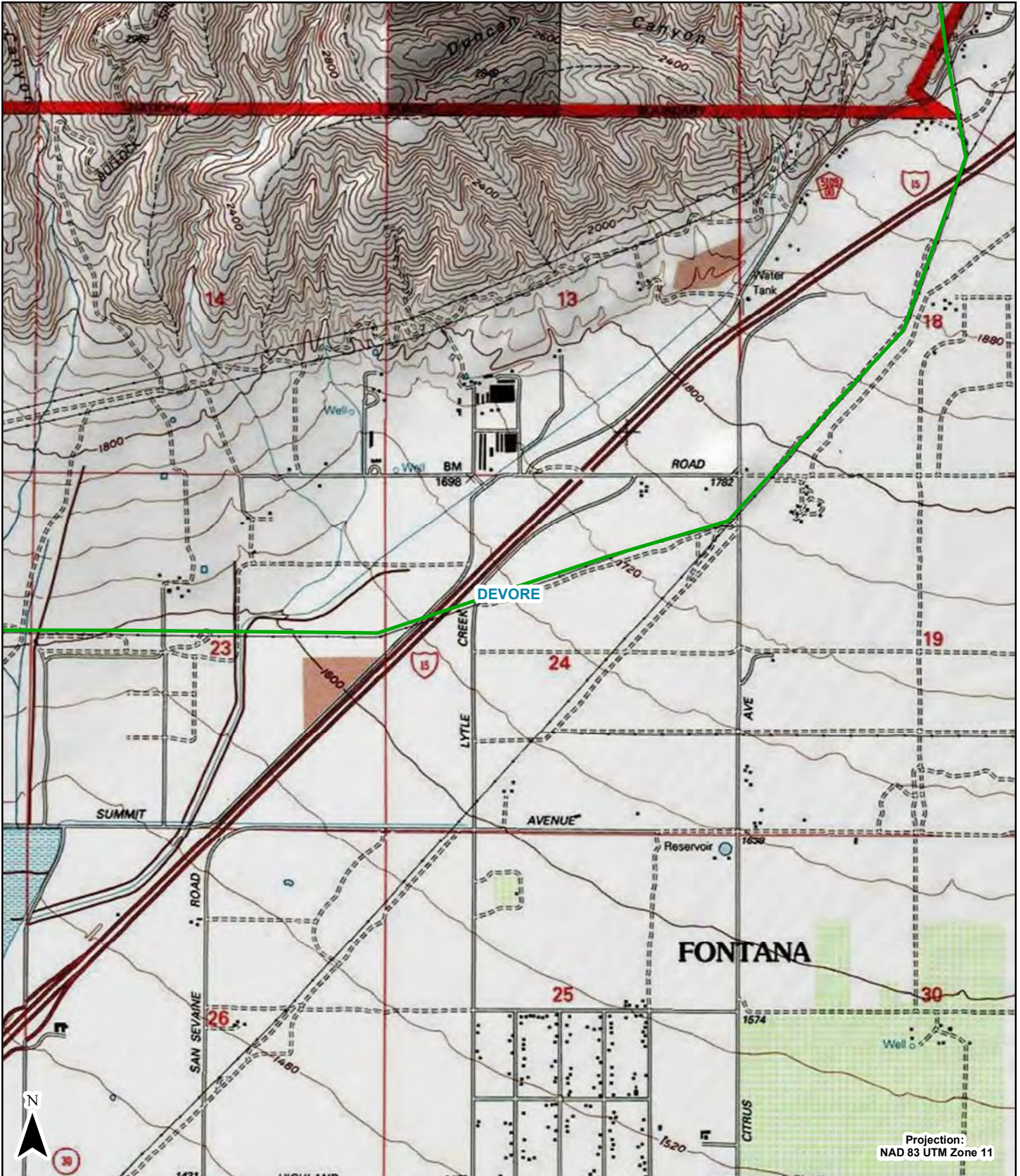




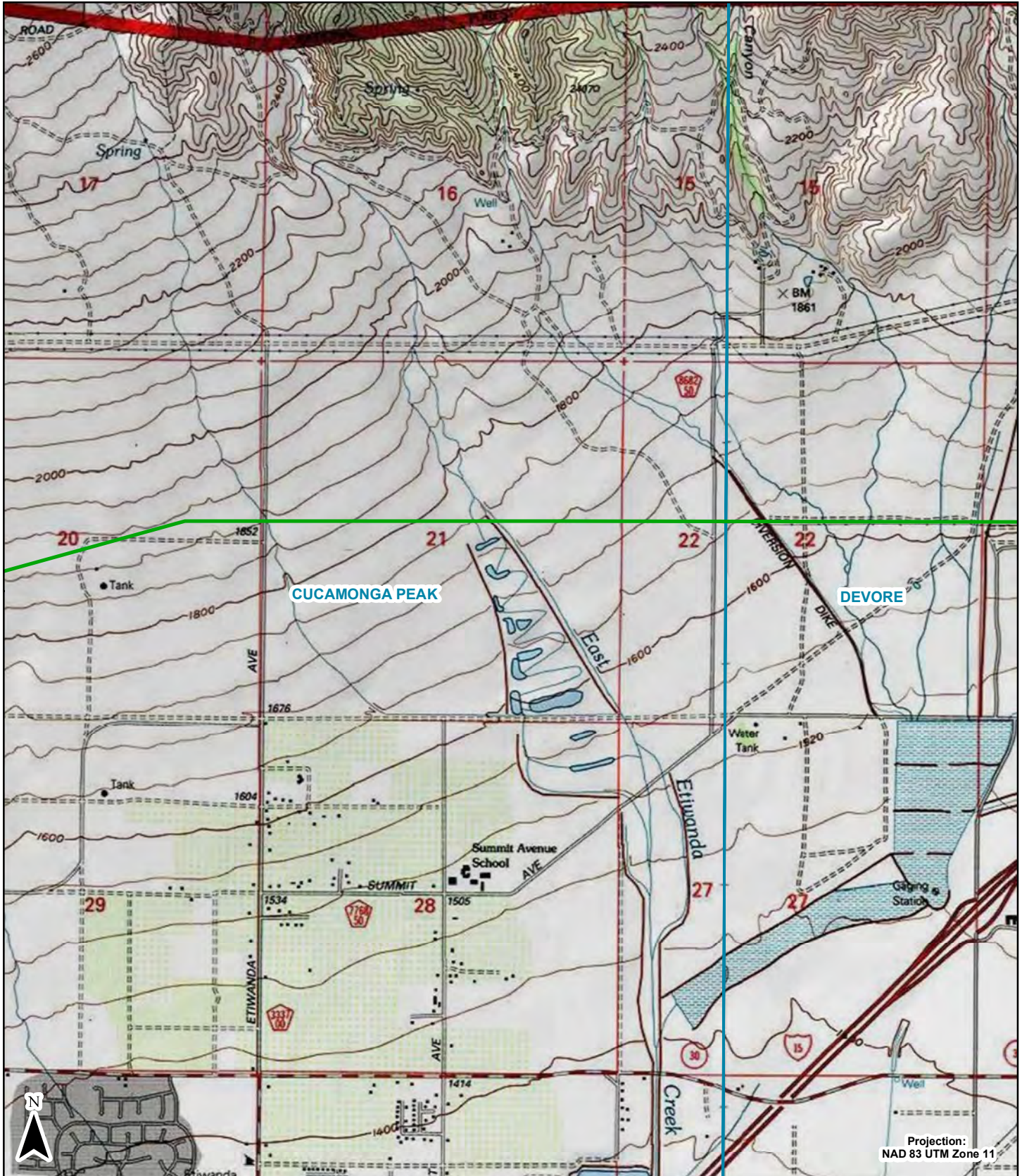
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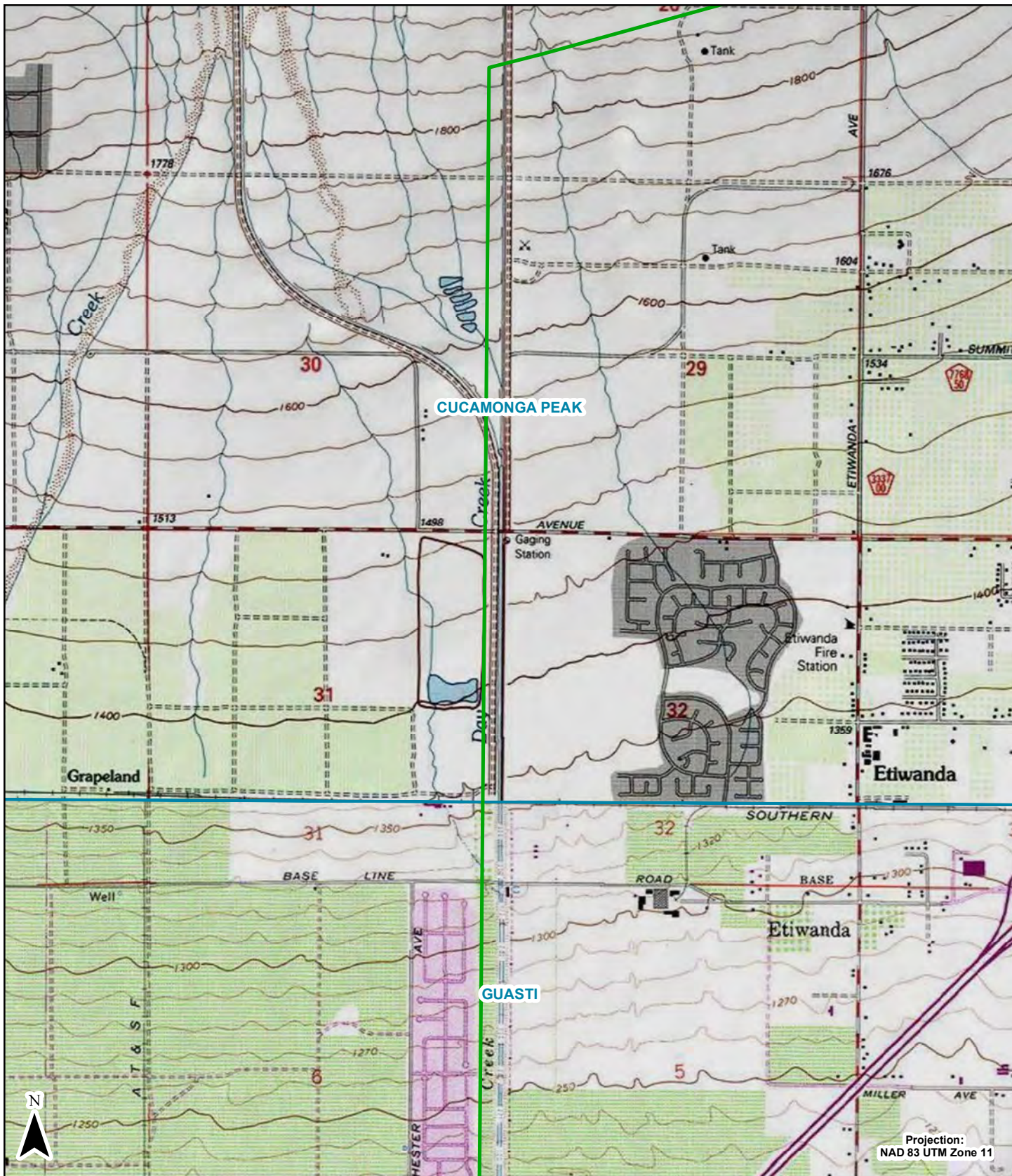
# LOCATION MAP



# LOCATION MAP



# LOCATION MAP



# LOCATION MAP

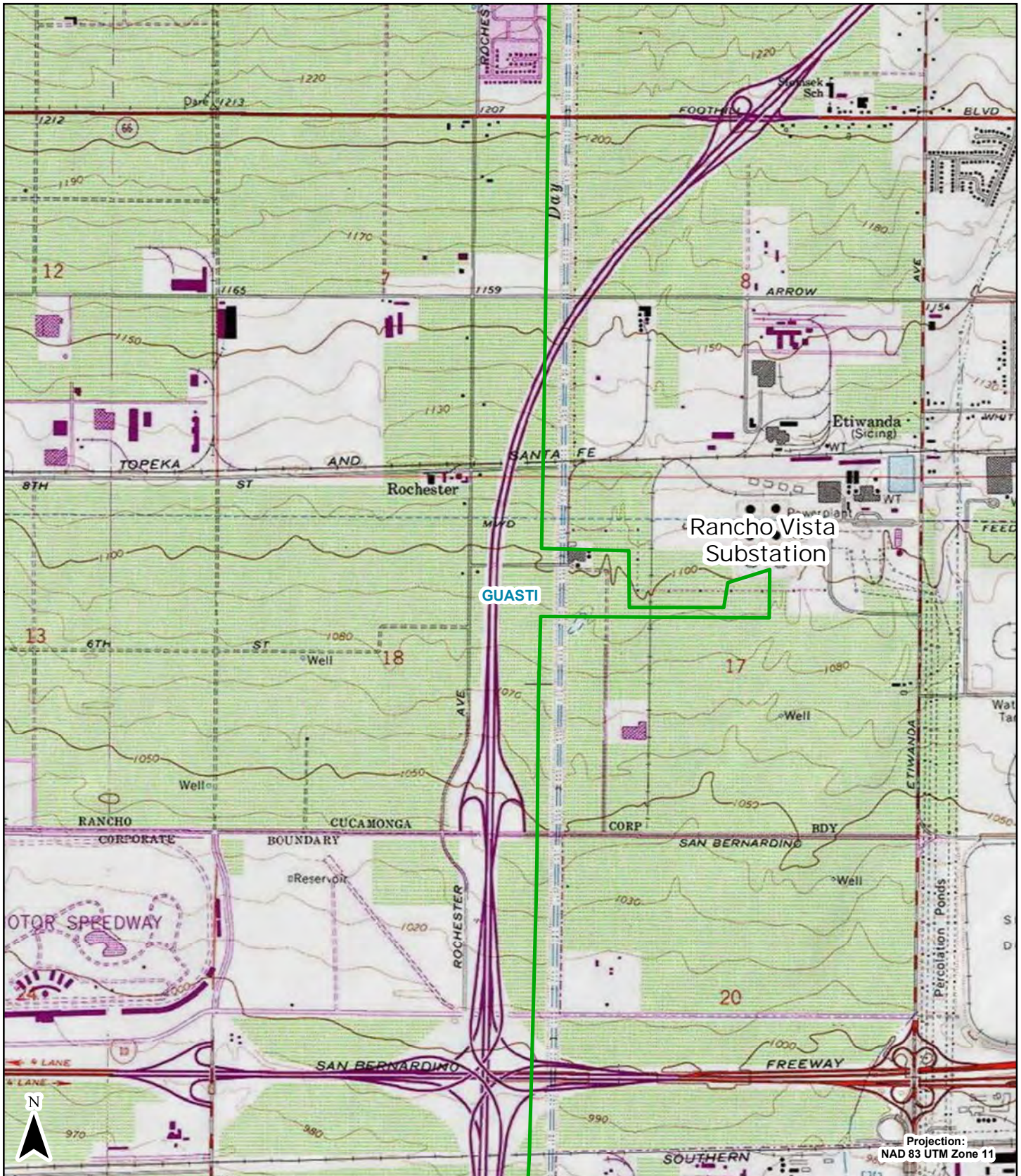
Page 14 of 16

\*Resource Name or # Lugo-Mira Loma 500kV No. 1 Transmission Line

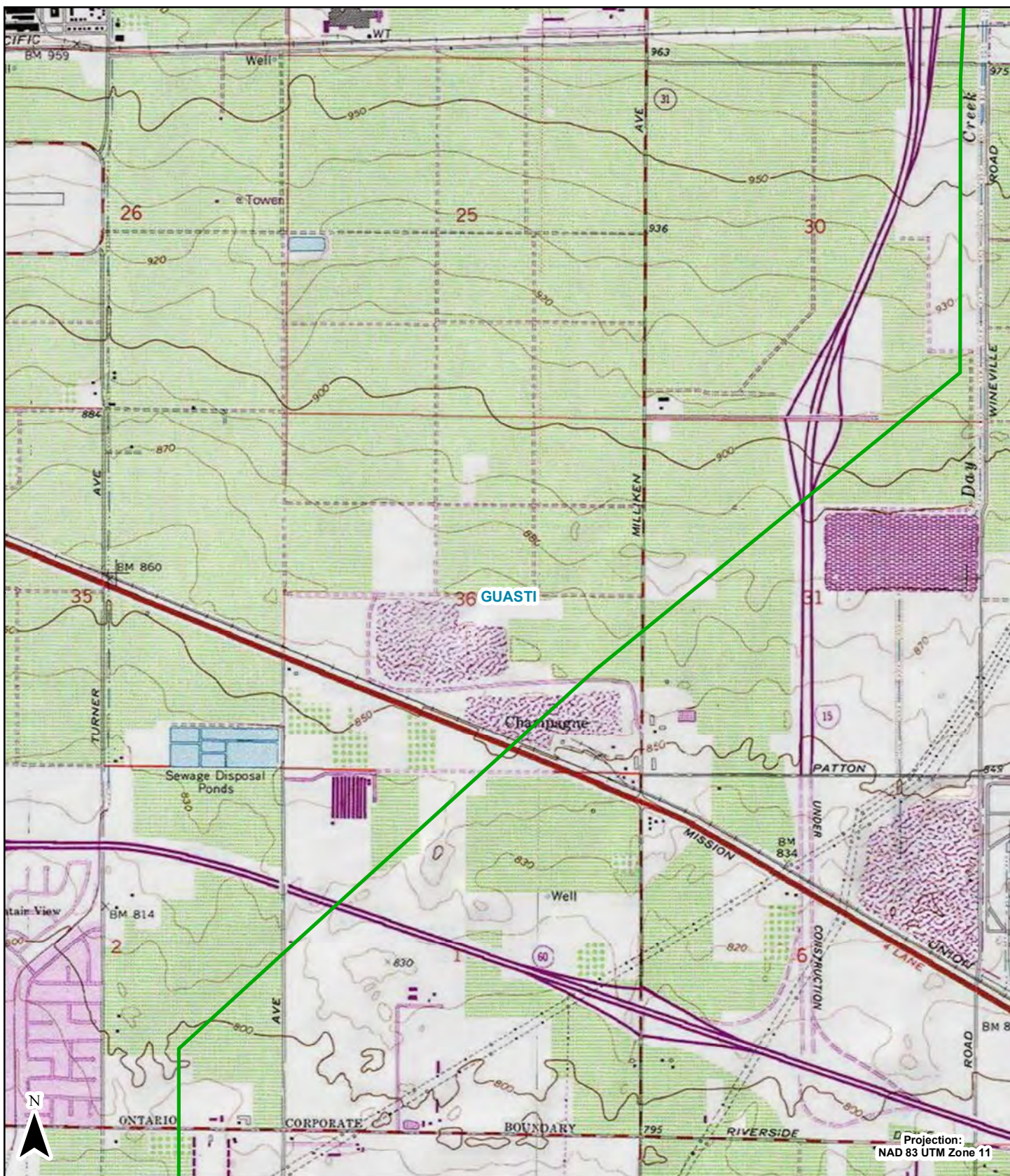
\*Map Name: Guasti

\*Scale: 1:24,000

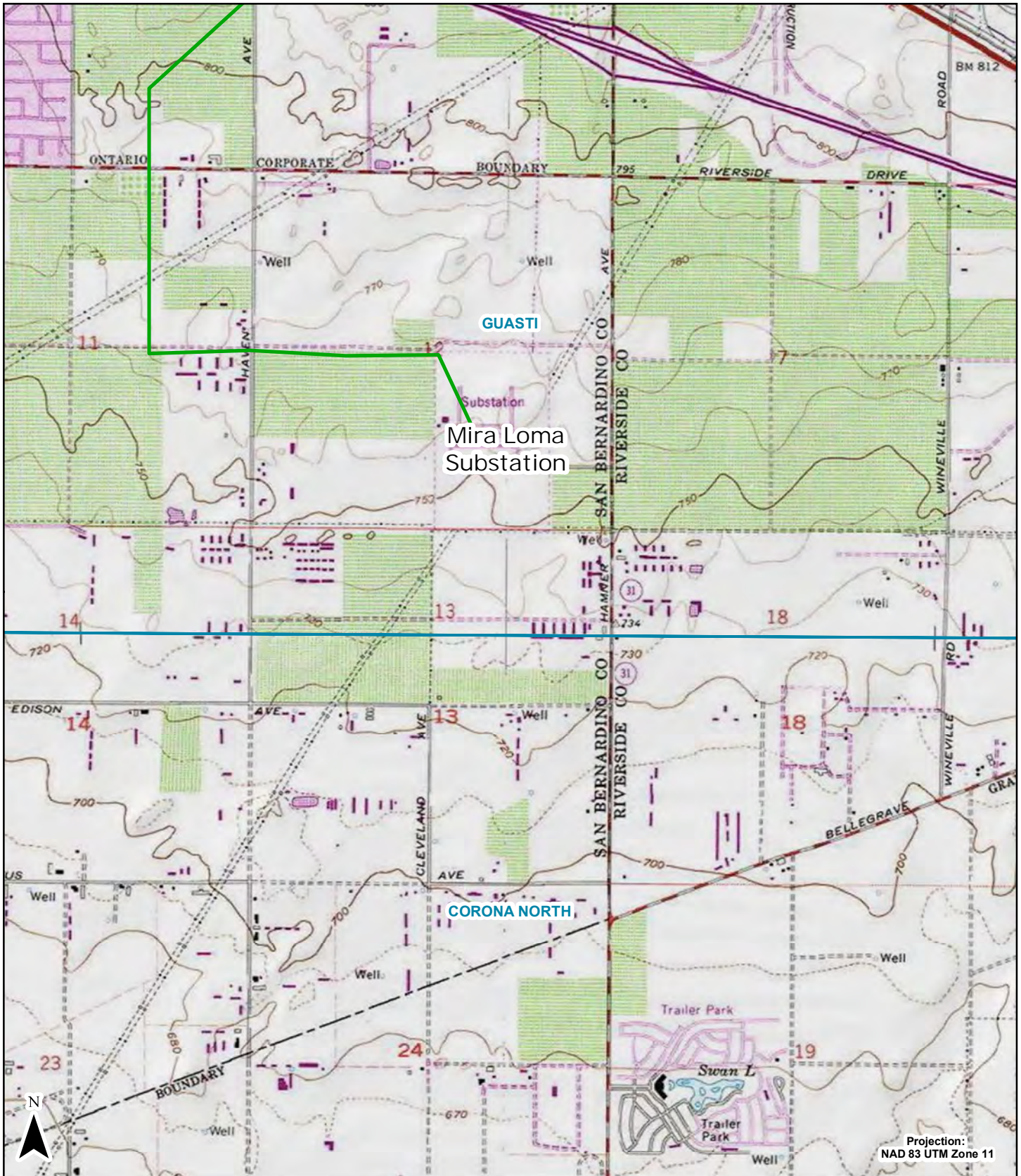
\*Date of Map: 1978



# LOCATION MAP



# LOCATION MAP



Update 7/12

State of California - The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # P-36-008857  
HRI # \_\_\_\_\_  
Trinomial CA-SBR-8857H  
NRHP Status Code \_\_\_\_\_

Other Listings \_\_\_\_\_  
Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_

Page 1 of 7

\*Resource Name or #: SRI-1607 (UPDATE)

P1. Other Identifier: SRI-1607

\*P2. Location:  Not for Publication  Unrestricted \*a. County: San Bernardino

\*b. USGS Quad: 7.5' CAJON (2009); T 3N R 5W, SW¼ of SW¼ of Sec. 19; SBBM

c. Address:

d. UTM: Zone 11; 458625 mE/ 3798207 mN NAD27 GPS

e. Other Locational Data:

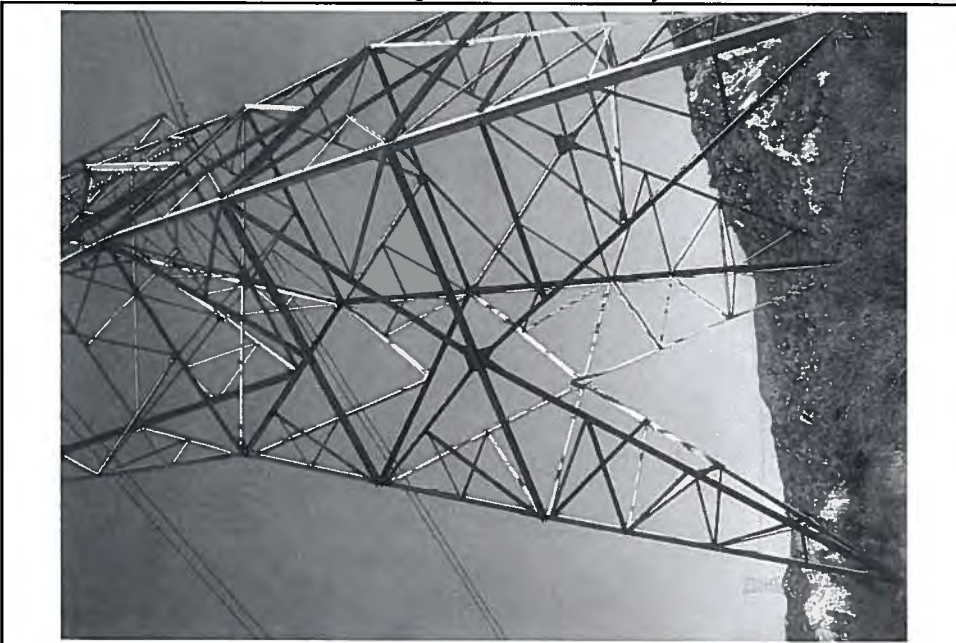
The site crosses Highway 138 at postmiles 17.3 to 17.5, southwest of Hesperia.

\*P3a. Description:

This site consists of a historical power transmission line. The transmission line as it exists today consists of five, 500 kV transmission wires strung between steel pylons measuring about 80 feet high. Within the right-of-way, the length of the line recorded on the north and south sides of Highway 138 is 464 feet. The site was previously recorded as P-36-008857. In that site record, it was indicated that the transmission lines were originally constructed in 1915 but was replaced in the early 1960s. The current project only examines the first 15 meters from the edge of pavement corresponding to the Caltrans right-of-way. The site continues beyond the right-of-way, but these portions were not recorded. No cultural material is associated with this site.

\*P3b. Resource Attributes: HP 39 Other-electric power transmission line, AH16 Other-electric power transmission line

\*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  Other (Isolates, etc.)



\*P5b. Description of Photo:

Facing E; 4/5/2011; Transmission line and tower

\*P6. Date Constructed/Age & Sources:

Historic  Prehistoric  Both

\*P7. Owner and Address:

NGUYEN, THAI D, 13666  
EASTBRIDGE STREET  
WESTMINSTER, CA

\*P8. Recorded by:

Joshua Trampier, SRI

\*P9. Date Recorded: 5/16/2011

\*P10. Survey Type:

Reconnaissance survey of highway right-of-way

\*P11. Citation: Report forthcoming

\* Attachments:  None  Location Map  Sketch Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Feature Record  Milling Station Record  Rock Art Record  
 Artifact Record  Photograph Record  Other:

DPR523A (1/95)

\*Required Information



# ARCHAEOLOGICAL SITE RECORD

Page 2 of 7

\*Resource Name or #: SRI-1607 (UPDATE)

\*A1. Dimensions: a. Length 223 m (NE/SW) x b. Width 39 m (NW/SE)

Method of Measurement:  Paced  Taped  Visual estimate  GPS  Other:

Method of Determination:  Artifacts  Features  Soil  Vegetation  Topography  Cut bank  Animal burrow

Excavation  Property boundary  Other: The site boundary is determined in part by the right-of-way established ...

Reliability of determination:  High  Medium  Low

Explain: The transmission line is clearly distinguishable from surrounding vegetation and topography.

Limitations:  Restricted access  Paved/built over  Site limits incompletely defined  Disturbances

Vegetation  Other:

A2. Depth: None  None  Unknown Method of determination: None

\*A3. Human Remains:  Present  Absent  Possible  Unknown

\*A4. Features:

The only feature associated with this site consists of a historical power transmission line (Feature 6286). As the lines are suspended roughly 70 feet off the ground, all observations and mapping are limited to what can be estimated from the ground. The transmission line as it exists today consists of five, 500 kV transmission wires strung between steel pylons measuring about 80 feet high. Three transmission wires are suspended from insulating coils hung from the top of the pylon; these coils are about 5 feet high. Relative to the body of the pylon, these three coils are located on the two outer edges and the center of it. The other two transmission wires are attached to the top of the pylon. The thickness of the transmission wires is unknown, perhaps 1 inch thick. The five transmission wires are evenly spaced and span a distance of 86 feet. Within the right-of-way, the length of the line recorded on the north and south sides of Highway 138 is 464 feet.

The site was previously recorded as P-36-008857. In that site record, it was indicated that the transmission lines were originally constructed in 1915 but was replaced in the early 1960s.

The current project only examines the first 15 meters from the edge of pavement corresponding to the Caltrans right-of-way. The site continues beyond the right-of-way, but these portions were not recorded. No cultural material is associated with this feature.

\*A5. Cultural Constituents:

No artifacts were located.

\*A6. Were Specimens Collected?  No  Yes

\*A7. Site Condition  Good  Fair  Poor

No disturbances noted.

\*A8. Nearest Water: Crowder Creek is located 50 m to the south of the electrical pylon.

\*A9. Elevation: 1040 m amsl

A10. Environmental Setting:

Soil is a moderately sorted, loosely compacted, gravelly sand. Vegetation includes grasses and Coastal Sage Scrub community plants. The site is located on a slope that slopes downward at an angle of 5 degrees to the east.

A11. Historical Information:

Previous site records indicate the original transmission lines were replaced in the 1960s.

\*A12. Age:  Prehistoric  Protohistoric  1542-1769  1769-1848  1848-1880  1880-1914  1914-1945

Post-1945  Undetermined

A13. Interpretations:

None

A14. Remarks:

The site has not changed from previous site records.

A15. References:

None

A16. Photographs: See photograph record

Original Media/Negatives Kept At: 21 W. Stuart Ave, Redlands, CA 92373

\*A17. Form Prepared By: Joshua Trampier

Date: 5/16/2011

Affiliation and Address: Statistical Research, Inc., 21 W. Stuart Ave, Redlands, CA 92373

**LINEAR FEATURE RECORD**

Primary # P-36-008857

HRI # \_\_\_\_\_

Trinomial \_\_\_\_\_

L1. Historic and/or Common Name: None

L2a. Portion Described:  Entire Resource  Segment  Point Observation Designation: Feature 6286

L2b. Location of Point or Segment:

Zone 11; 458564 mE/ 3798164 mN NAD27 GPS

Zone 11; 458701 mE/ 3798259 mN NAD27 GPS

L3. Description:

The only feature associated with this site consists of a historical power transmission line (Feature 6286). As the lines are suspended roughly 70 feet off the ground, all observations and mapping are limited to what can be estimated from the ground. The transmission line as it exists today consists of five, 500 kV transmission wires strung between steel pylons measuring about 80 feet high. Three transmission wires are suspended from insulating coils hung from the top of the pylon; these coils are about 5 feet high. Relative to the body of the pylon, these three coils are located on the two outer edges and the center of it. The other two transmission wires are attached to the top of the pylon. The thickness of the transmission wires is ...

L4. Dimensions:

a. Top Width: 29.00 m

b. Bottom Width: N/A

c. Height or Depth: None

d. Length of Segment: 145.00 m

L5. Associated Resources:

None

L4e. Sketch of Cross-Section:

Facing:

L6. Setting:

Soil is a moderately sorted, loosely compacted, gravelly sand. Vegetation includes grasses and Coastal Sage Scrub community plants. The site is located on a slope that slopes downward at an angle of 5 degrees to the east.

L7. Integrity Considerations:

No disturbances noted.

L8b. Description of Photo, Map, or Drawing

See sketch map

L9. Remarks:

The site has not changed from previous site records.

L10. Form Prepared By:

Joshua Trampier

L11. Date: 5/16/2011

**PHOTOGRAPH RECORD**

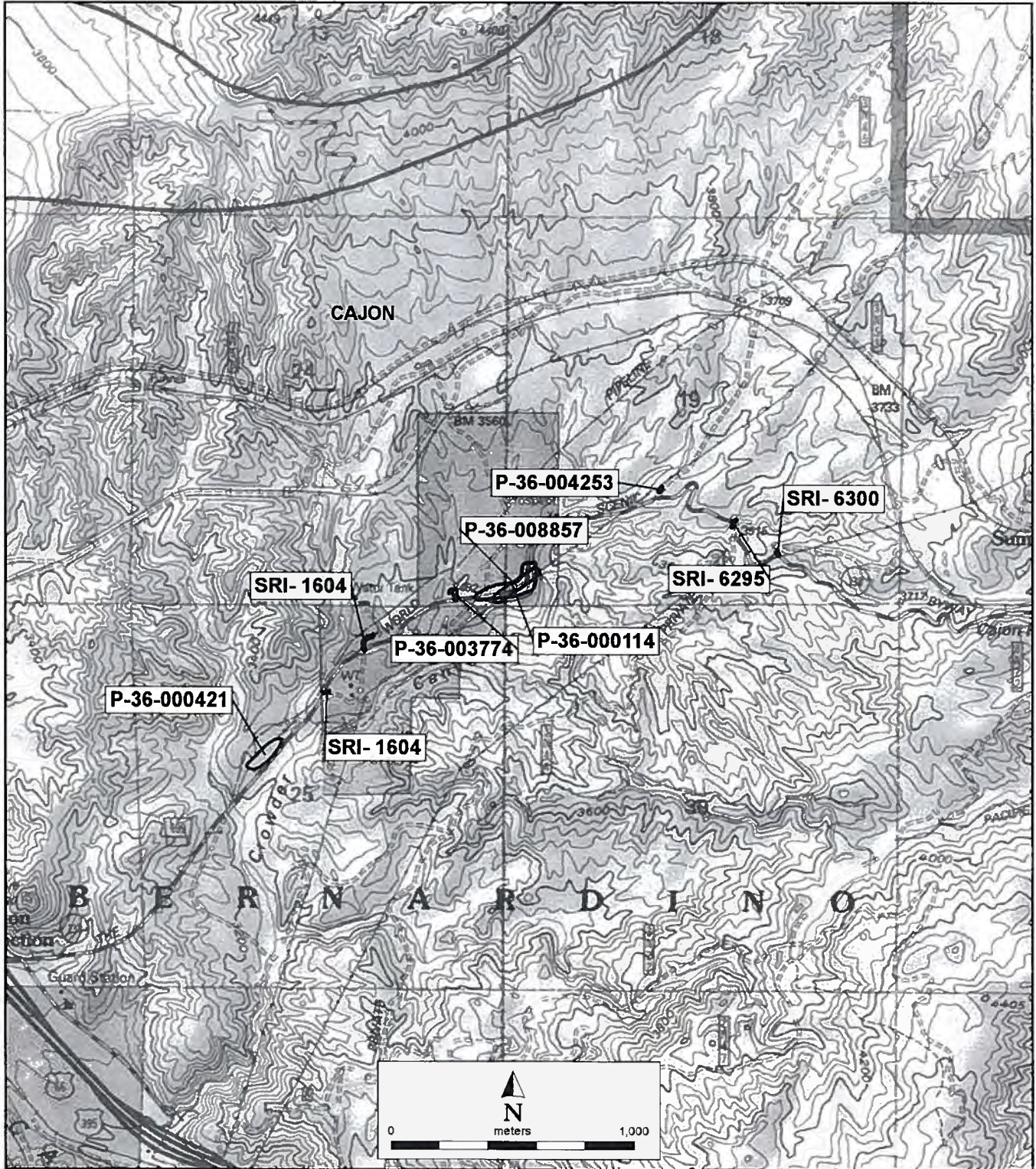
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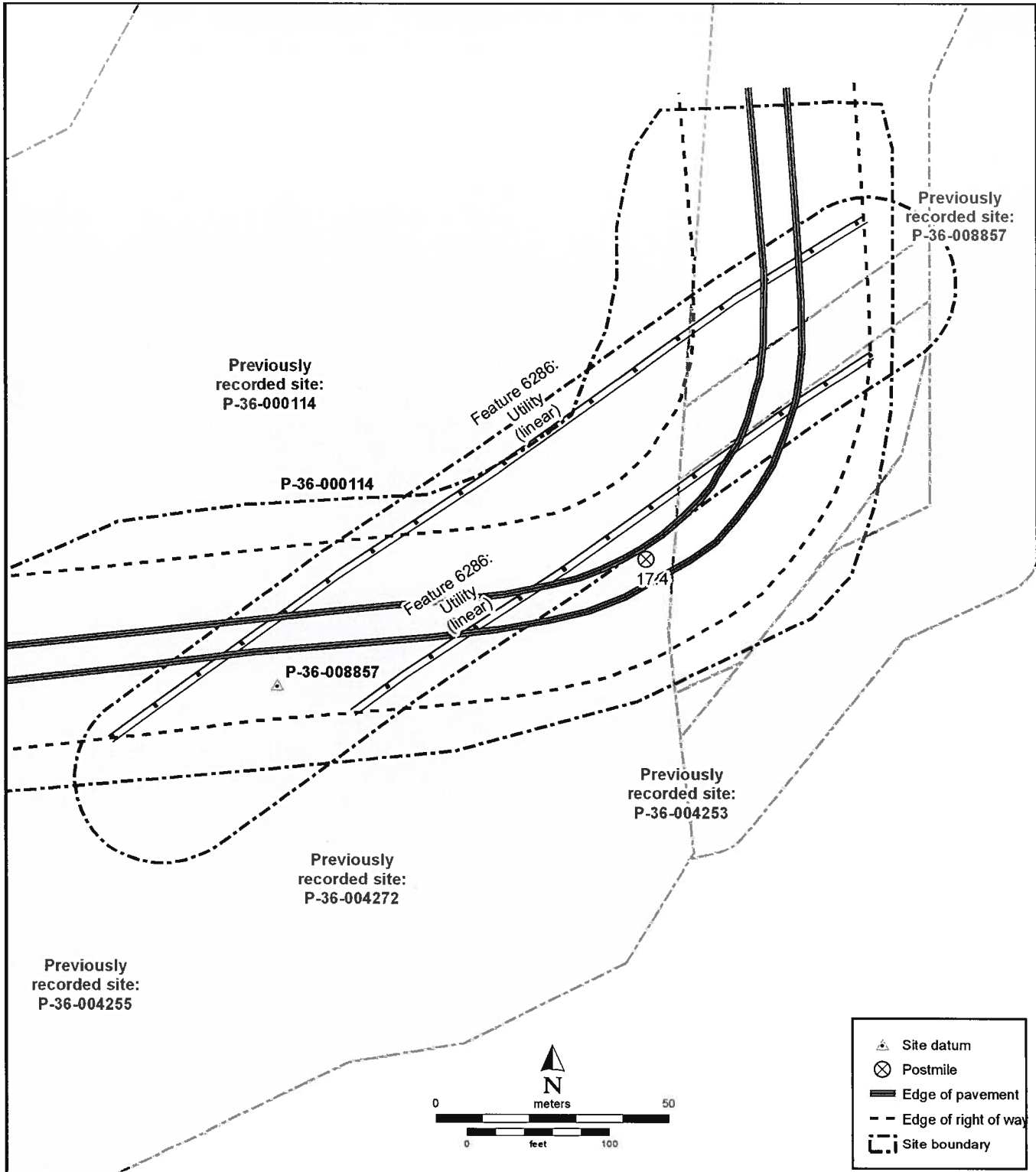
Lens Size:

Film Type and Speed: Digital

Negatives Kept At: 21 W. Stuart Ave, Redlands, CA 92373

Date	Time	Exp/ Frame	Subject/Description	View Toward	Accession #
4/5/2011		3141	Transmission line and tower	E	
5/13/2011		65	Transmission line	W	





State of California - The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**CONTINUATION SHEET**

Primary # P-36-008857

HRI # \_\_\_\_\_

Trinomial \_\_\_\_\_

Page 7 of 7

\*Resource Name or #: SRI-1607 (UPDATE)

\*Recorded By: Joshua Trampier

\*Date: 5/16/2011

Continuation

Update

P2b. Legal description

T 3N R 6W; NE¼ of NE¼ of Sec 25; SBBM

T 3N R 6W; SE¼ of SE¼ of Sec 24; SBBM

P2d. UTM

Zone 11; 458701 mE/ 3798259 mN NAD27 GPS

P4. Resources Present

Other (linear)

P7. Owner and Address

-----  
PARKER, WILLIAM FAM TR 5-3-91 -EST  
PO BOX 63700-TREO  
SAN FRANCISCO CA  
-----

PRESIDENT AND FELLOWS OF HARVARD  
600 ATLANTIC AVE  
BOSTON MA 02210  
-----

A1. Method of determination

by Caltrans. The right-of-way extends 15 m from the edge of the pavement. The site continues beyond the right-of-way, but these portions were not recorded.

L3. Description

unknown, perhaps 1 inch thick. The five transmission wires are evenly spaced and span a distance of 86 feet. Within the right-of-way, the length of the line recorded on the north and south sides of Highway 138 is 464 feet.

The site was previously recorded as P-36-008857. In that site record, it was indicated that the transmission lines were originally constructed in 1915 but was replaced in the early 1960s.

The current project only examines the first 15 meters from the edge of pavement corresponding to the Caltrans right-of-way. The site continues beyond the right-of-way, but these portions were not recorded. No cultural material is associated with this feature.

Update 6/11

State of California — The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION

Primary# 36-008857  
HRI# \_\_\_\_\_

**CONTINUATION SHEET**

Trinomial: CA-SBR-8857H

Page 1 of 2

Resource Name or # Lytle Canyon Transmission Lines

Recorded by: J. Coleman

Date: 12/12/10

Continuation  Update

During a survey for the Oak Hills Fuel Modification Project for the Natural Resources Conservation Service in cooperation with the United States Forest Service the transmission line was relocated and found to be in good condition. There are no changes to its status since its last update. The field crew concurs with the previous recorder's assessment that the resource does not meet National Register criteria, and therefore recommends CA-SBR-8857H as not eligible for listing in the NRHP.

Condition: Good

Crew: J. Coleman, G. Bergman-Hutson, R. Kast, and A. Boltz.

Affiliation:

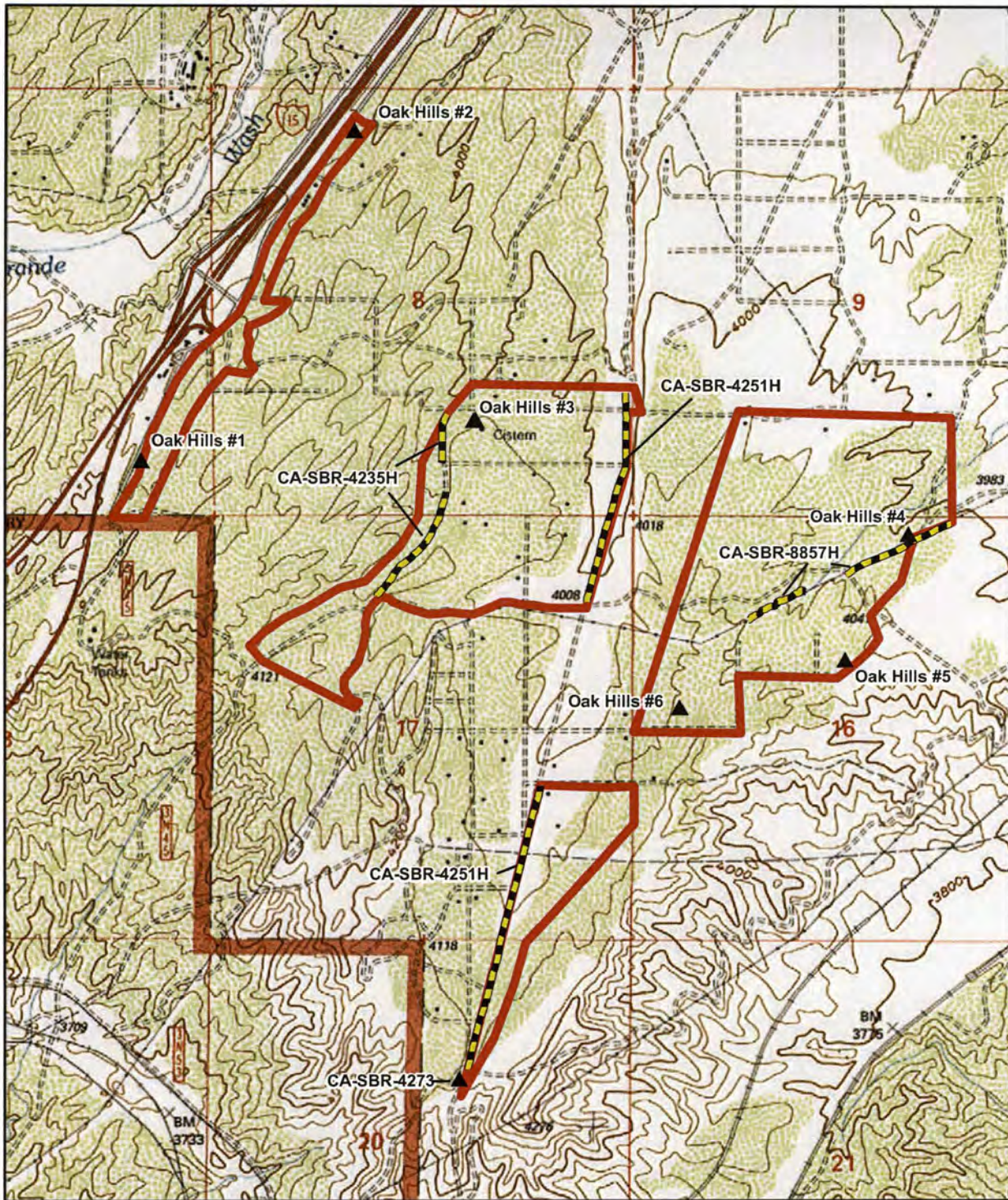
Solano Archaeological Services  
131 Sunset Avenue, Ste. E 120  
Suisun, CA 94585

Date: December 12, 2010



CA-SBR-8857H facing northeast.

# LOCATION MAP



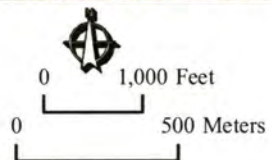
Oak Hills Fuel Modification Project Findings Map

Oak Hills APE    
  Cultural Resource    
  Linear Site

1:20,000

USGS. *Cajon Quadrangle, California*  
[map]. 1:24,000. 7.5' Series. USGS, 1996.

Solano Archaeological Services





State of California - The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # P36-008857  
HRI # \_\_\_\_\_  
Trinomial SBR-8857H  
NRHP Status Code \_\_\_\_\_  
Other Listings \_\_\_\_\_  
Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_

Page 1 of 3 \*Resource Name or #: (Assigned by recorder) \_\_\_\_\_

P1. Other Identifier: previously listed as part of PSBR-37H

\*P2. Location:  Not for Publication  Unrestricted \*a. County San Bernardino  
and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

\*b. USGS 7.5' Quad see below Date \_\_\_\_\_ T \_\_\_\_\_; R \_\_\_\_\_; \_\_\_\_\_ % of \_\_\_\_\_ % of Sec \_\_\_\_\_; SBd B.M.

d. UTM: (Give more than one for large and/or linear resources) Zone 11, see below mE/ \_\_\_\_\_ mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

Power line shown on 1942 Corps of Engineers 15' *Hesperia* quadrangle (see segment of line on Location Map). Its route on *Hesperia* quad corresponds to Sections 1, 12, 13 and 24 of T2N, R6W; Sections 24, 25 and 36 of T3N, R6W; and Sections 9-11, 16, 17, 19, and 20 of T3N, R5W of the present-day USGS 7.5' *Cajon* quad. The line continues NE onto the 1942 15' *Deep Creek* quad and S and SW onto 1942 15' *San Bernardino* and *Cucamonga* quads providing electric power for the Los Angeles Basin from the southern Sierras.

UTMs (segment on 7.5' 1956 [1988] *Cajon* quad: south end: 457680 mE/ 3789790;  
north end: 465500 mE/ 3802520.

Elevation (segment on *Cajon* quad): 2,560 feet (south end); 3,780 feet (north end).

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Southern Sierras Power Co. branch power line built ca. 1915. Mistakenly recorded by Brock (1986) as part of Lytle Canyon Transmission Lines. Line and towers were completely removed and replaced by the Mira Loma I line in the early 1960s following a slightly different route (Myers 1983:222-226). Resource destroyed.

\*P3b. Resource Attributes: (List attributes and codes) HP39 - Electric Power Transmission Line

\*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  Other (Isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

P5b. Description of Photo: (view, date, accession #) \_\_\_\_\_

\*P6. Date Constructed/Age and Source:  Historic

Prehistoric  Both

ca. 1915 to early 1960s

\*P7. Owner and Address:

once crossed lands owned by multiple private landowners and government agencies

\*P8. Recorded by: (Name, affiliation, and address) Philip de Barros

and Joel Paulson, Professional Archaeological Services, 13730 Via Cima Bella, San Diego, CA 92129

\*P9. Date Recorded: 6/8/97

\*P10. Survey Type: (Describe) Reconnaissance survey

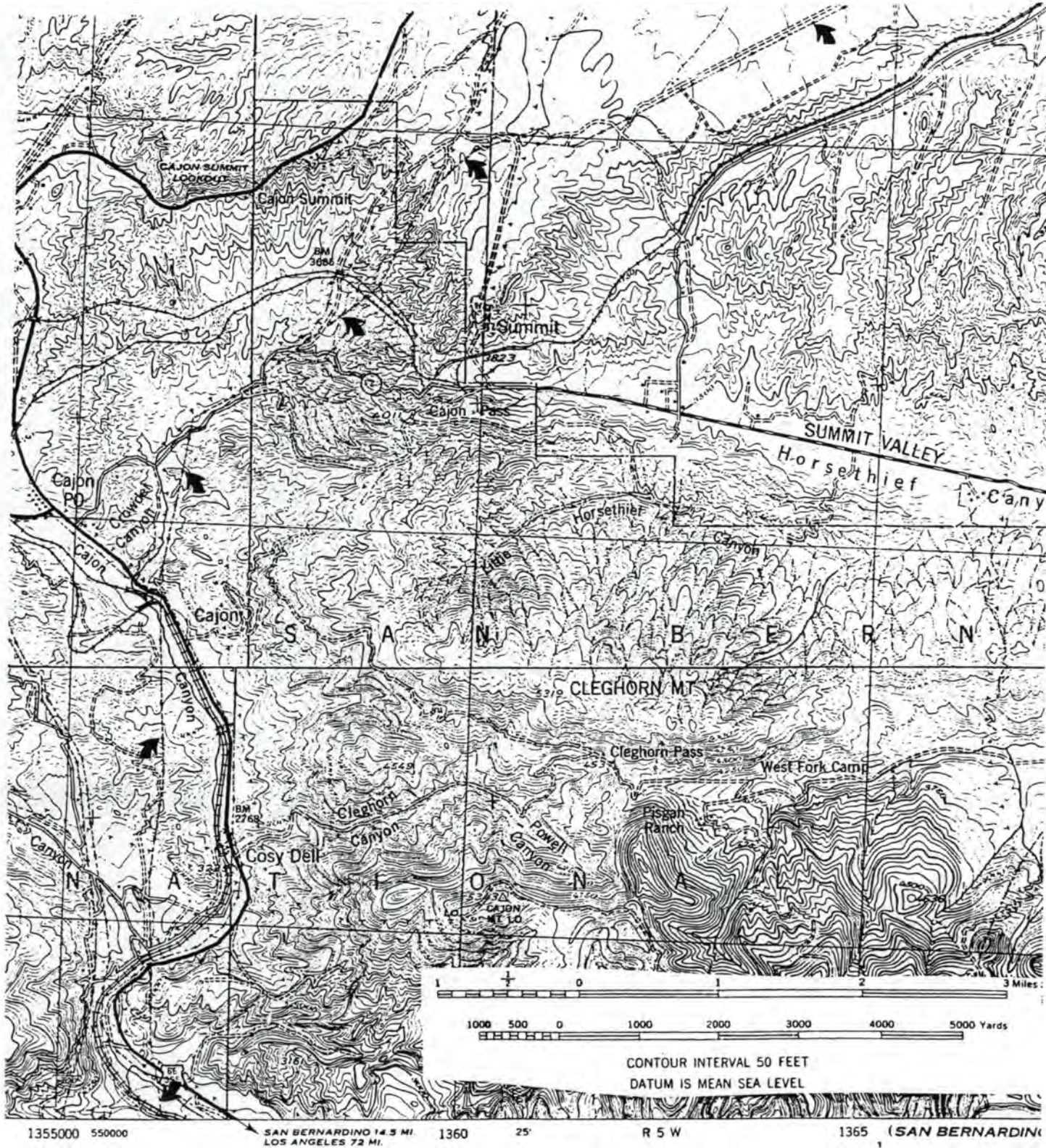
\*P11. Report Citation: (Cite survey report and other sources, or enter "none.")

Addendum Archaeological Survey Report, Route 138 Improvement Project, 08-SBd-138, PM 16.5/19.7.

Professional Archaeological

Services, San Diego, by Philip de Barros, 1997. Submitted to Rancho Las Flores Ltd. Partnership, Dana Point. See also W.A. Myers (1983). Iron Men and Copper Wires: A Centennial History of the Southern California Edison Company. Trans-Anqlo Books, Glendale.

\*Attachments:  NONE  Location Map  Sketch Map  Continuation Sheet  Building, Structure, and Object Record  Archaeological Record  District Record  Linear Feature Record  Milling Station Record  Rock Art Record  Artifact Record  Photograph Record  Other (List): \_\_\_\_\_



State of California — The Resources Agency  
 DEPARTMENT OF PARKS AND RECREATION  
**LOCATION MAP**

Primary # P36-008857  
 HRI# \_\_\_\_\_  
 Trinomial SBR-8857H

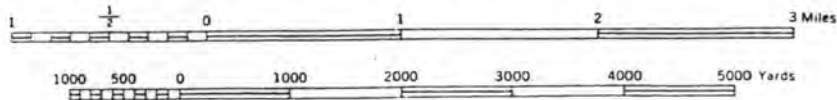
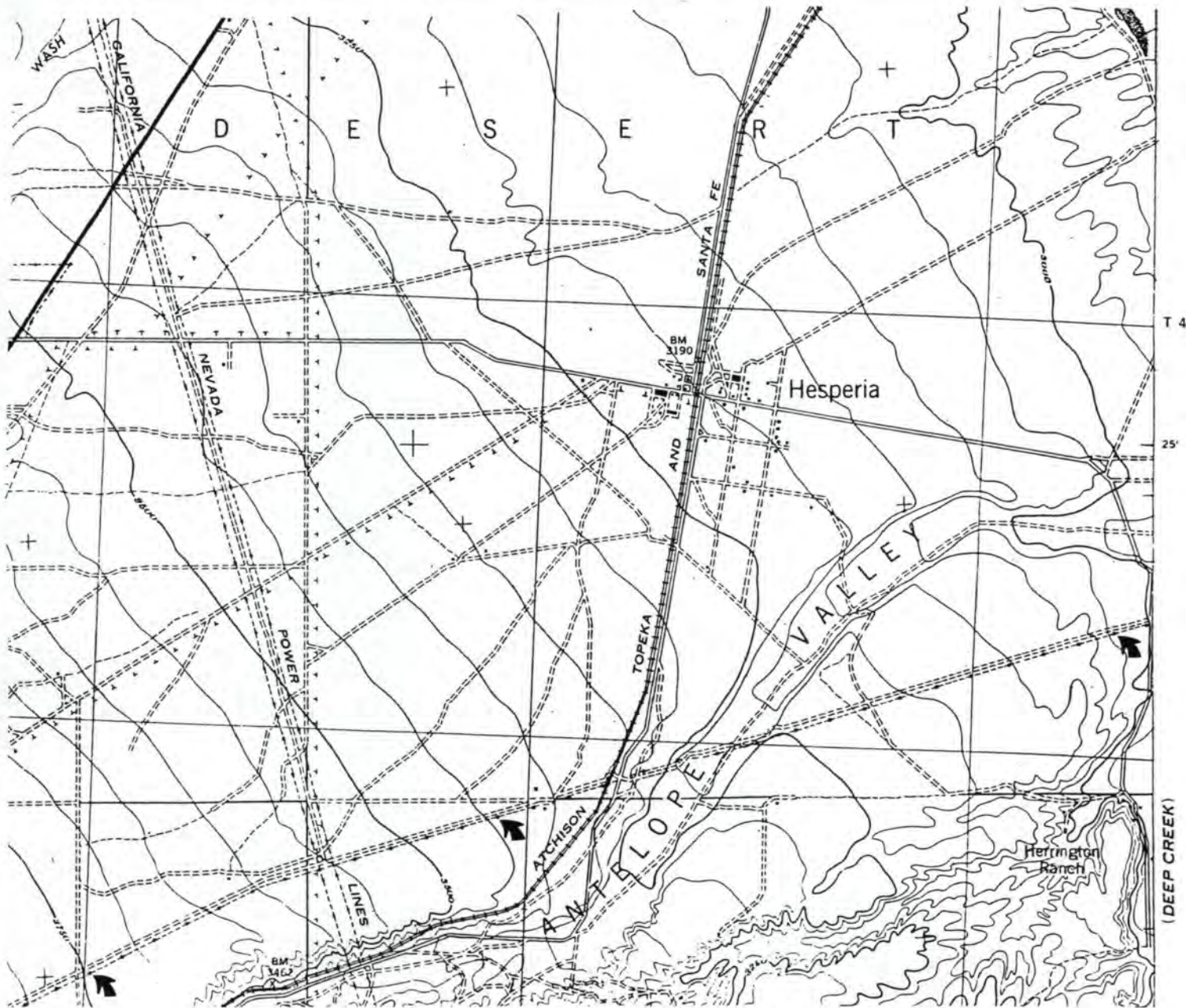
Page 3 of 3

\*Resource Name or # (Assigned by recorder) \_\_\_\_\_

\*Map Name: Corps of Engineers 15' Hesperia

\*Scale: 1:62,500

\*Date of map: 1942



CONTOUR INTERVAL 50 FEET  
 DATUM IS MEAN SEA LEVEL

PSBR-37-14  
P36-008857  
CA-SBR-8857H

NADB1061566

ARCHITECTURAL INVENTORY/EVALUATION FORM

LC-20 LYTLE CANYON TRANSMISSION LINES

LISTED DETERMINED ELIGIBLE  
APPEARS ELIGIBLE APPEARS INELIGIBLE

IDENTIFICATION

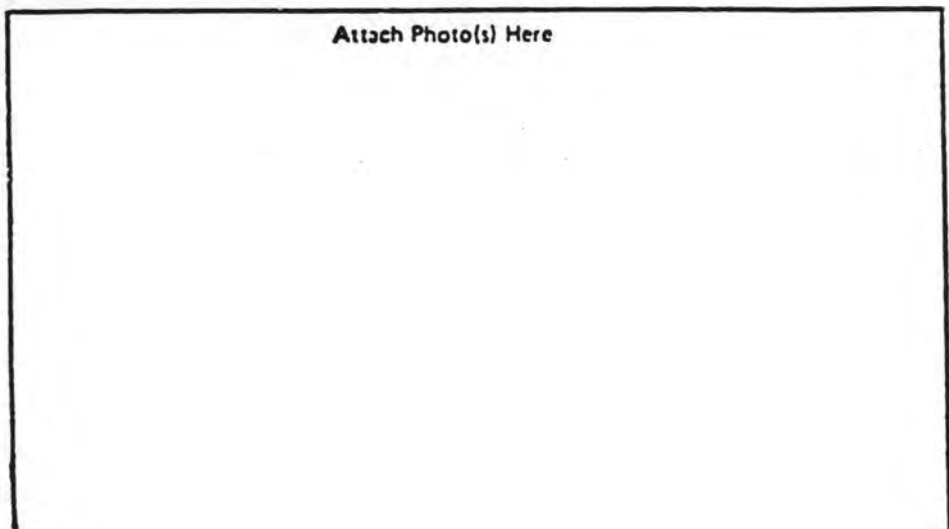
- 1. Common name: LYTLE CANYON TRANSMISSION LINES
- 2. Historic name: Same
- 3. Street or rural address: \_\_\_\_\_  
City \_\_\_\_\_ Zip \_\_\_\_\_ County San Bernardino
- 4. Parcel number: \_\_\_\_\_
- 5. Present Owner: LADWP/SCE Address: P.O. Box 600  
City Rosemead, CA Zip 91771 Ownership is: Public \_\_\_\_\_ Private X
- 6. Present Use: Hydroelectric transmission Original use: Same

DESCRIPTION

- 7a. Architectural style: \_\_\_\_\_
- 7b. Briefly describe the present physical description of the site or structure and describe any major alterations from its original condition:

This site consists of three sets of electrical transmission lines mounted on metal towers; two of these lines are owned and maintained by Los Angeles Department of Water and Power and one line forms a part of the connector system of Lytle Creek Powerhouse No. 1 (LC-16a), owned by the Southern California Edison Company.

USGS DELORE  
CAJON  
SILVERWOOD LAKE



- 8. Construction date:  
Estimated 1912 Factual \_\_\_\_\_  
1936
- 9. Architect \_\_\_\_\_
- 10. Builder \_\_\_\_\_
- 11. Approx. property size (in feet)  
Frontage \_\_\_\_\_ Depth \_\_\_\_\_  
or approx. acreage \_\_\_\_\_
- 12. Date(s) of enclosed photograph(s)  
\_\_\_\_\_

1/8/86  
ELIOTT

13. Condition: Excellent  Good  Fair  Deteriorated  No longer in existence
14. Alterations: Unknown
15. Surroundings: (Check more than one if necessary) Open land  Scattered buildings  Densely built-up   
Residential  Industrial  Commercial  Other:
16. Threats to site: None known  Private development  Zoning  Vandalism   
Public Works project  Other:
17. Is the structure: On its original site?  Moved?  Unknown?
18. Related features: Lytle Creek Powerhouse No. 1 (IC-16a)

**SIGNIFICANCE**

19. Briefly state historical and/or architectural importance (include dates, events, and persons associated with the site.)

LC-20a

Land was acquired for a right-of-way (450 ft.) for these transmission lines in 1928 (BLM Sacramento). The completion of the lines ca. 1936 marked the entry of Boulder Dam hydroelectric power to the Los Angeles Basin.

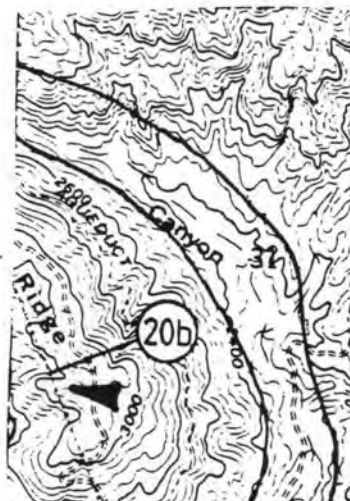
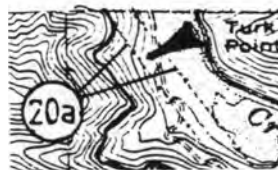
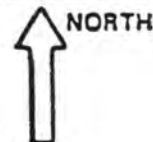
LC-20b

Land was granted for right-of-way to extend Edison Company power lines from Lytle Creek Powerhouse No. 1 (LC-16) up the canyon to Miller Narrows and Scotland in 1912 (BLM Sacramento). — *WRONG DATA*

*20b DOES NOT GO UP THE CANYON, ONLY CROSSES THE RIDGE  
+ OTHER PROSER FOR.*

20. Main theme of the historic resource: (If more than one is checked, number in order of importance.)  
Architecture  Arts & Leisure   
Economic/Industrial  Exploration/Settlement   
Government  Military   
Religion  Social/Education
21. Sources (List books, documents, surveys, personal interviews and their dates).  
Myers 1985  
Foreman 1985  
BLM Sacramento
22. Date form prepared January 8, 1986  
By (name) John F. Elliott  
Organization ECOS  
Address: 5300 Orange Ave., Suite 220  
City 714/827-1180 Zip             
Phone:

Locational sketch map (draw and label site and surrounding streets, roads, and prominent landmarks):



1067666

Update 6/14

State of California — The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION

Primary # P36-010330  
HRI #

**PRIMARY RECORD**

Trinomial CA-SBR-10, 330 H UPPER TRACK  
NRHP Status Code 6Y

Other Listings  
Review Code

Reviewer

Date

Page 1 of 24 3

\*Resource Name or #: Southern Pacific Railroad at Monte Vista Avenue

**P1. Other Identifier:** Southern Pacific Railroad; SP; SPRR; West Line Basin Alignment; Alternate Sunset Route, Union Pacific Railroad; UPRR M.P. 517.37.

\*P2. Location:  Not for Publication  Unrestricted  
and (P2b and P2c or P2d. Attach a Location Map as necessary.)

\*a. County: San Bernardino

\*b. USGS 7.5' Quad: Ontario, Calif.

Date: 1981 T 1S ; R 8W ; 1/4 of 1/4 of Sec 26 ; M.D.B.M. SB

c. Address: N/A

City: Montclair

Zip: 91762

d. UTM: Segment 11S 435394.35mE, 3769049.00mN to 11S 435654.88mE, 3769057.90mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation:

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The Southern Pacific Railroad at Monte Vista Avenue is a parallel set of standard gauge railroad tracks, running east-west and bisecting Monte Vista Avenue in Montclair, CA. The northern-most set of tracks within this segment feature rails, pandrol clips and concrete ties that appear to date from c.2003. The southern set of tracks has wood ties with a slightly different version of pandrol clip. The estimated replacement span of ties for active track is approximately 30 years, and this segment is believed to be less than 50 years old. The two alignments are set upon a slightly elevated ballast-covered berm. The alignment features a set of recent crossbars located at either side of Monte Vista Avenue. Concrete plates at either side of the rail are present where it traverses the paved Monte Vista Avenue. Just south of the alignments due east of Monte Vista Avenue is a wide, paved driveway that leads to the "Montclair Yard," which itself is outside of the project area. A metal call box, which appears to be less than 50 years old, is present just west of Monte Vista Avenue and south of the alignments. A standard crossing bar and signal is present at either end of Monte Vista Avenue, and they too appear to be recent.

\*P3b. Resource Attributes: (List attributes and codes) AH7. Roads/trails/railroad grades

\*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  Other (isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



**P5b. Description of Photo:** (View, date, accession #) Southern Pacific Railroad at Monte Vista Avenue. View: SW. Photo: Daniel Paul, ICF International. November, 18, 2012.

\*P6. Date Constructed/Age and Sources:  Historic

Prehistoric  Both  
c.1883-2010

\*P7. Owner and Address:

Union Pacific Railroad  
1400 Douglas St.  
Omaha, NE  
68179

\*P8. Recorded by: (Name, affiliation, and address)

Daniel D. Paul,  
Architectural Historian  
ICF International  
811 West 7<sup>th</sup> Street, Suite 800  
Los Angeles, CA 90017

\*P9. Date Recorded: November 26, 2012

\*P10. Survey Type: Intensive Level, Section 106 Compliance

\*P11. Report Citation: Monte Vista Grade Separation Project, Caltrans District 8, Historic Resources and Evaluation Report, November 2012.

\*Attachments:  NONE  Location Map  Sketch Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Feature Record  Milling Station Record  Rock Art Record  
 Artifact Record  Photograph Record  Other (List):

**BUILDING, STRUCTURE, AND OBJECT RECORD**

Page 2 of 24 <sup>3</sup>

\*NRHP Status Code 6Y

\*Resource Name or # Southern Pacific Railroad at Monte Vista Avenue

**B1. Historic Name:** Southern Pacific Railroad; SP; SPRR; West Line Basin Alignment; Alternate Sunset Route, Union Pacific Railroad; UPRR M.P. 517.37.

**B2. Common Name:** Union Pacific Railroad

**B3. Original Use:** transportation: railroad

**B4. Present Use:** transportation: railroad

\***B5. Architectural Style:** N/A

\***B6. Construction History:** (Construction date, alterations, and date of alterations) originally constructed in 1883; all rail related material appears to date from within the last 30-50 years.

\***B7. Moved?** No Yes Unknown **Date:** **Original Location:**

\***B8. Related Features:** Signal box, mile post, call box, storage yard access, cross bars, light signals, creek underpass.

**B9a. Architect:** N/A

**b. Builder:** Southern Pacific Railroad

\***B10. Significance: Theme:** Transportation

**Area:** Southern California

**Period of Significance:** 1883-c.1930

**Property Type:** Object: railroad alignment **Applicable Criteria:** N/A

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

In 1999, the entirety of the Union Pacific Railroad (UP/ UPRR) was found eligible across Southern California. The DPR that argued this determination was never submitted to the State Office of Historic Preservation, and there is no record in the State Historic Resources Inventory that formalized this finding. Within the proposed project area, the entirety of both SP lines is wholly reconstructed with new materials. The Southern Pacific Railroad, as a railroad that opened up the southwest, is incredibly historically significant. However this segment retains only its integrity of location and association. Historically the setting was primarily citrus agriculture by the time the railroad arrived in 1883. This setting has been replaced by light industrial use, suburban development, and the wholesale loss of citrus within the project area. The feeling of a railroad penetrating the open West has likewise been lost with the advent of local cityhood and post-war development within the vicinity. The design of the alignment and its components are similar. However, in detail many of these components are new, particularly the use of concrete ties and pandrol clips. With these changes have come a loss of integrity of materials and workmanship. The Southern Pacific Railroad where it crosses Monte Vista Avenue in Montclair, CA, does not appear to retain eligibility under National register of Historic Places Criteria A, B, or C, or California Register of Historical Resources Criteria 1, 2, or 3. This resource was not analyzed at the municipal level as part of this evaluation.

**B11. Additional Resource Attributes:** moved to 523A form

\***B12. References:**

Orsi, Raymond J. 2005. *Sunset Limited: The Southern Pacific Railroad and the Development of the American West, 1850-1930*. Berkeley and Los Angeles, CA: University of California Press; Conley, Bernice Bedford. *The Beginnings of Montclair's Development*. The Daily Report. January 11, 1981.

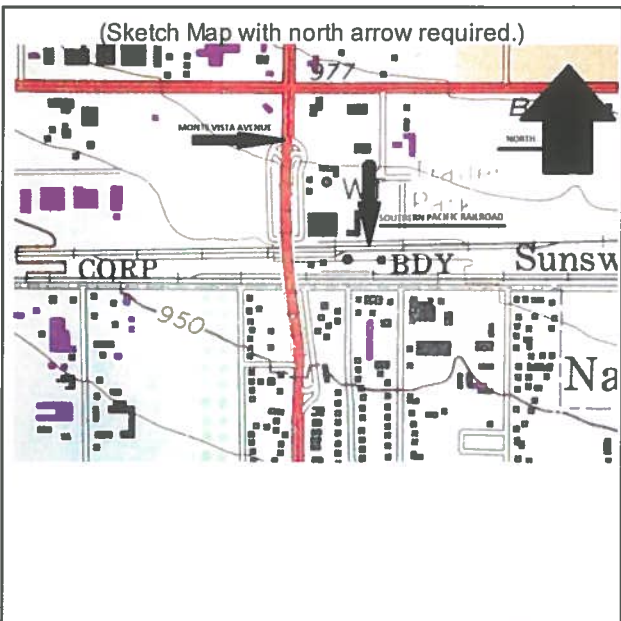
Trains.com online community

**B13. Remarks:**

\***B14. Evaluator:** Daniel D. Paul, Architectural Historian, ICF International

\***Date of Evaluation:** November 27, 2012

(This space reserved for official comments.)



# CONTINUATION SHEET

\*Recorded by: Daniel Paul, ICF International

\*Date: November 16, 2012

Continuation

Update



Southern Pacific Railroad at Monte Vista Avenue: signal box. View: W. November, 2012.



Southern Pacific Railroad at Monte Vista Avenue. From Monte Vista Avenue looking south. November, 2012.



Southern Pacific Railroad at Monte Vista Avenue: Access road to Montclair Yard. SP,LA&SL alignment is at the right. View: E. November, 2012.



**PRIMARY RECORD**

Primary # P36-010330

HRI # 36 Dec 11 57

Trinomial CA-SBR-10,330-H

NRHP Status Code 6Y

Other Listings

Review Code

Reviewer

Date

Page 1 of 24 <sup>3</sup>

\*Resource Name or #: San Pedro, Los Angeles and Salt Lake Railroad at Monte Vista Avenue

**P1. Other Identifier:** San Pedro, Los Angeles and Salt Lake Railroad; Los Angeles and Salt Lake Railroad; Union Pacific Railroad; SP, LA&SL, LA&SL, SLR; UPRR MP 517.37.

\*P2. Location:  Not for Publication  Unrestricted

\*a. County: San Bernardino

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

\*b. USGS 7.5' Quad: Ontario, Calif. <sup>SE</sup> ~~4~~ QUAD; Date: 1981 T 1S ; R 8W ; 1/4 of 1/4 of Sec 26 ; M.D.B.M.

c. Address: N/A

City: Montclair

Zip: 91762

d. UTM: 11S 435696.87mE, 3769019.65mN to 11S 435654.68mE, 3769019.23mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: Approximately 800 foot long segment of alignment bisected by Monte Vista Avenue in Montclair, CA.

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The San Pedro, Los Angeles and Salt Lake Railroad at Monte Vista Avenue is a standard guage railroad, running east to west, with concrete ties, pandrol clips, and rail itself that appear to be less than 50 years old. The alignment is elevated upon a low berm that is covered with ballast. To the east of Monte Vista Avenue, just south of the alignment, is a wood post with the marker "35." A wide, paved service road that leads to the UPRR "Montclair Yard" is present just north of the alignment. West of the Avenue and south of the alignment is a metal, shed-like call-in box that appears to be less than 50 years old. A pair of recent crossing bars are present just south of the alignment at either end of Monte Vista Avenue.

\*P3b. Resource Attributes: AH7. Roads/trails/railroad grades

\*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  Other (isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



**P5b. Description of Photo:** (View, date, accession #) San Pedro Los Angeles and Salt Lake Railroad at Monte Vista Avenue. View: E. Photo: Daniel Paul, ICF International. November, 18, 2012.

\*P6. Date Constructed/Age and Sources:  Historic

Prehistoric  Both  
1905-2010.

\*P7. Owner and Address:

Union Pacific Railroad  
1400 Douglas St.  
Omaha, NE  
68179

\*P8. Recorded by: (Name, affiliation, and address)

Daniel D. Paul,  
Architectural Historian

ICF International  
811 West 7<sup>th</sup> Street, Suite 800  
Los Angeles, CA 90017

\*P9. Date Recorded: November 26, 2012

\*P10. Survey Type: Intensive Level Survey, Section 106 Compliance

\*P11. Report Citation: Monte Vista Grade Separation Project, Caltrans District 8, Historic Resources and Evaluation Report, November 2012.

\*Attachments:  NONE  Location Map  Sketch Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Feature Record  Milling Station Record  Rock Art Record  
 Artifact Record  Photograph Record  Other (List):

**BUILDING, STRUCTURE, AND OBJECT RECORD**

Page 2 of 24

\*NRHP Status Code 6Y

\*Resource Name or # San Pedro, Los Angeles and Salt Lake Railroad at Monte Vista Avenue

**B1. Historic Name:** San Pedro Los Angeles and Salt Lake Railroad; Los Angeles and Salt Lake Railroad; Union Pacific Railroad; SP,LA&SL, LA&SL, SLR.

**B2. Common Name:** Union Pacific Railroad

**B3. Original Use:** transportation: railroad

**B4. Present Use:** transportation: railroad

\***B5. Architectural Style:** N/A

\***B6. Construction History:** (Construction date, alterations, and date of alterations) originally constructed in 1905; all rail alignment materials appear to be recent.

\***B7. Moved?** XNo Yes Unknown **Date:** **Original Location:**

\***B8. Related Features:** wood post with marker; underpass, signal lights, signal box, crossing bars

**B9a. Architect:** N/A

**b. Builder:** The San Pedro, Los Angeles and Salt Lake Railroad

\***B10. Significance: Theme:** Transportation

**Area:** Southern California

**Period of Significance:** 1905-c.1930

**Property Type:** Object: railroad alignment **Applicable Criteria:** N/A

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

In 1999, the entirety of the Union Pacific Railroad was found eligible across Southern California. The DPR making this determination was never submitted to the State Office of Historic Preservation, and there is no record in the State Historic Resources Inventory that formalized this finding. The SP,LA&SL was founded by former Montana Senator William Andrews Clark, and integrated with pre-existing Utah railroads that date back to approximately 1871. Intended to connect the burgeoning San Pedro Harbor (later Port of Los Angeles) with points west, the SP, LA&SL was one of three major Southern California railroads responsible for greatly connecting Southern California to the rest of the United States before the automobile age. Within the project area, the SP,LA&SL was constructed in 1905 and unlike the parallel SP lines due immediately north, the SP,LA&SL provided passenger service to the vicinity. The subject SP,LA&SL segment within the project area appears to be completely reconstructed with recent rails, ties, pandrol clips, and ballast. Historically the setting was primarily citrus agriculture and had a small vicinity called Fremont located about a quarter mile north of the alignment. This setting has been replaced by light industrial use, suburban development, and the complete loss of citrus agriculture within the project area. The integrity of feeling: of a railroad opening up the West, servicing the agricultural industry and a nearby small town is also completely lost. The design of the alignment and its features is highly similar to the historic period, both in the gauge and the fundamental components of the alignment. But in detail many of these components are new, particularly the use of concrete ties and pandrol clips. With these changes has come a loss of integrity of materials and workmanship. The SP,LA&SL at Monte Vista Avenue in Montclair, CA, does not appear to retain eligibility under National Register of Historic Places Criteria A, B, or C, or California Register of Historical Resources Criteria 1, 2, or 3. This resource was not analyzed at the municipal level as part of this evaluation.

**B11. Additional Resource Attributes:**

\***B12. References:**

Conley, Bernice Bedford:

- The Beginnings of Montclair's Development.* The Daily Report. Jan. 11, 1981; *Monte Vista Sign comes down and Narod sign is put back up.* The Daily Report, Feb. 15, 1981: 17; *Citrus Developed Rapidly at Narod.* The Daily Report. Jan. 18, 1981;

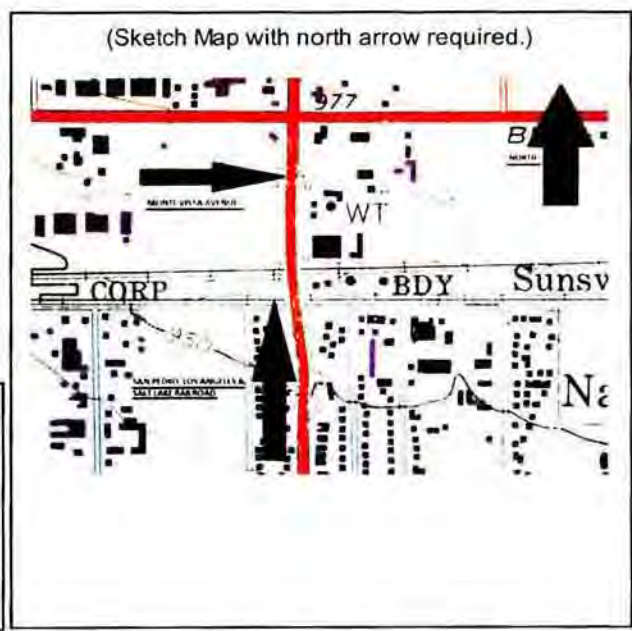
City of Montclair, *Images of America: Montclair.* Charleston, SC: Arcadia Publishing, 2005: 88.

**B13. Remarks:**

\***B14. Evaluator:** Daniel D. Paul, Architectural Historian, ICF

\***Date of Evaluation:** November 27, 2012

(This space reserved for official comments.)



**CONTINUATION SHEET**

\*Recorded by: Daniel Paul, ICF International

\*Date: November 16, 2012

Continuation

Update



San Pedro, Los Angeles and Salt Lake Railroad at Monte Vista Avenue. Alignment looking west from Monte Vista Avenue with call in booth. November, 2012.



San Pedro, Los Angeles and Salt Lake Railroad at Monte Vista Avenue. Setting looking north toward alignment from Monte Vista Avenue. November, 2012.



San Pedro, Los Angeles and Salt Lake Railroad at Monte Vista Avenue. Alignment in foreground, SPRR alignment in background. View: NE. November, 2012.

State of California — The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # 36-010330 (Update)

HRI # \_\_\_\_\_

Trinomial CA-SBR-10330H

NRHP Status Code 6Z

Other Listings  
Review Code \_\_\_\_\_

Reviewer \_\_\_\_\_

Date \_\_\_\_\_

Page 1 of 5

Resource Name or #: Southern Pacific Railroad segment

P1. Other Identifier: Union Pacific Railroad; APE Map Reference #1

\*P2. Location:  Not for Publication  Unrestricted \*a. County: San Bernardino and (P2b and P2c or P2d. Attach a Location Map as necessary.)

\*b. USGS 7.5' Quad: San Bernardino South, CA Date: 1967 PR 1980 T 1S; R 4W; S.B.B.M.

c. Address: \_\_\_\_\_ City: Colton, CA Zip: \_\_\_\_\_

d. UTM: Zone: 11; \_\_\_\_\_ mE/ \_\_\_\_\_ mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate): This approximately 1.85-mile long segment is located south of Interstate 10 (I-10) generally between North Cypress Avenue (north of I-10) and Mt. Vernon Avenue.

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

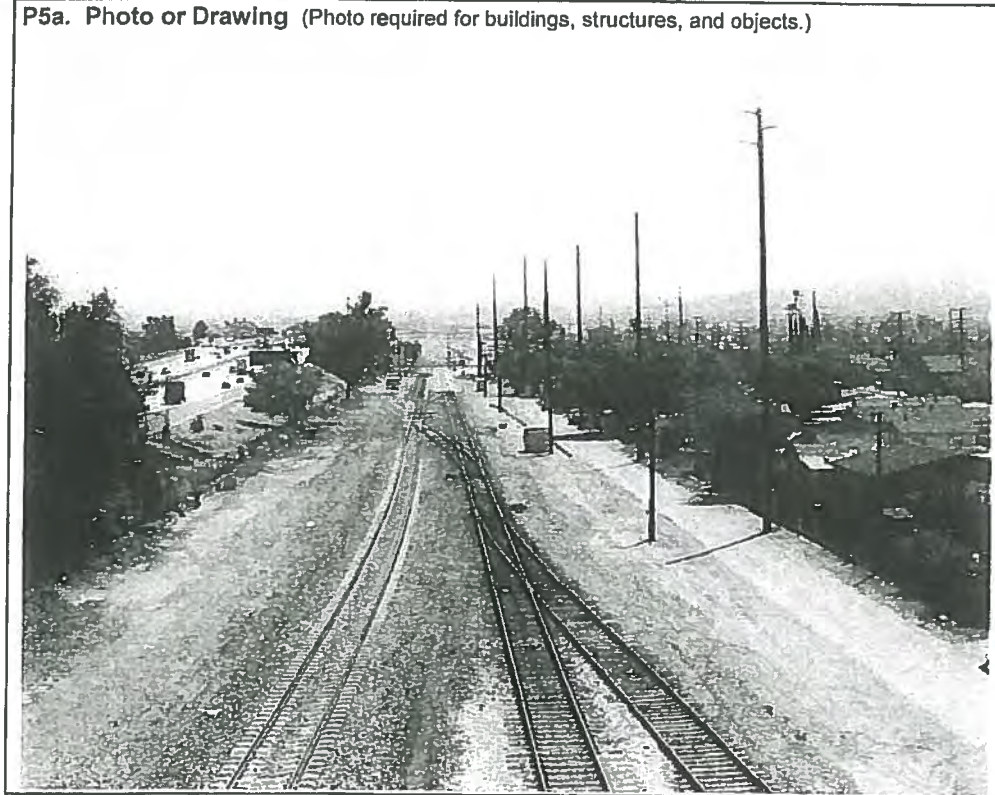
This segment of the railroad consists of the Union Pacific Railroad (UPRR; formerly Southern Pacific Railroad [SPRR]) mainline tracks, as well as various spurs, sidings, and wyes. Sets of railroad ties support pairs of rails and a layer of volcanic rocks lines the rail bed. I-10 is adjacent to the north. At 9<sup>th</sup> Street, on the north side of the tracks, there are two altered historic-period buildings: a former Southern Pacific depot and a former American Railway Express Company building. To the south of the tracks are wooden utility poles, Slover Mountain, and the historic-period South Colton neighborhood. Crossing the UPRR approximately where South 6<sup>th</sup> Street would have been are two north-south Burlington Northern Santa Fe (BNSF, formerly California Southern and Atchison, Topeka & Santa Fe [ATSF]) tracks. This extant, but modernized crossing is known as the Colton Crossing and is one of numerous rail-to-rail crossings in California.

The tracks appear to retain integrity of location, design, and association, but integrity of setting, materials, workmanship, and feeling have been compromised by the addition and realignment of tracks, routine maintenance and modifications, construction of I-10, and alterations to the surrounding buildings and streets.

\*P3b. Resource Attributes: (List attributes and codes) HP39 Other (railroad)

\*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #) Union Pacific tracks, view east from South Rancho Avenue overpass on April 23, 2010. (Also see Linear Feature Record, page 3)

\*P6. Date Constructed/Age and Sources:  Historic  Prehistoric  Both  
1875

\*P7. Owner and Address:  
Union Pacific Railroad  
1400 Douglas Street  
Omaha, NE 68179

\*P8. Recorded by: (Name, affiliation, and address)  
Casey Tibbet, M.A.  
LSA Associates, Inc.  
1500 Iowa Avenue, Suite 200  
Riverside, CA 92507

\*P9. Date Recorded:  
May 2010

\*P10. Survey Type: (Describe)  
Intensive-level Section 106 and CEQA compliance

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Historic Property Survey Report for the Colton Crossing Rail-to-Rail Grade Separation, Attachment B, Historic Resources Evaluation Report, 2011.

\*Attachments:  NONE  Location Map  Sketch Map  Continuation Sheet  Building, Structure, and Object Record  Archaeological Record  District Record  Linear Feature Record  Milling Station Record  Rock Art Record  Artifact Record  Photograph Record  Other (List):

**BUILDING, STRUCTURE, AND OBJECT RECORD**

Page 2 of 5

\*NRHP Status Code 6Z

\*Resource Name or # (Assigned by recorder) Southern Pacific Railroad segment

- B1. Historic Name: Southern Pacific Railroad
- B2. Common Name: Union Pacific Railroad
- B3. Original Use: Railroad      B4. Present Use: Railroad
- \*B5. Architectural Style: NA
- \*B6. Construction History: (Construction date, alterations, and date of alterations)  
1875 railroad segment constructed
- \*B7. Moved?  No     Yes     Unknown    Date: \_\_\_\_\_    Original Location: \_\_\_\_\_
- \*B8. Related Features:
- B9a. Architect: Unknown      b. Builder: Unknown
- \*B10. Significance: Theme: Transportation      Area: City of Colton  
Period of Significance: 1875-1960      Property Type: Railroad      Applicable Criteria: NA

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This approximately 1.85-mile long railroad segment does not appear to meet any of the criteria for listing in the National Register of Historic Places (National Register). The SPRR (now UPRR) was constructed in Colton in 1875. Since then, the setting has been extensively altered: buildings were removed in conjunction with construction of I-10 adjacent to the north; grade separations (South Rancho Avenue, La Cadena Drive, and Mt. Vernon Avenue) have been constructed; tracks have been added, realigned, and otherwise modified; the tower at the crossing has been removed; and most of the nearby historic-period buildings, which were constructed after the railroad was in place, have been removed or significantly altered.

**Historical Background.** The Southern Pacific Railroad was founded in 1865 by a group of businessmen led by Timothy Phelps (American Public University n.d.). In May 1869, the first transcontinental railroad was completed when the Central Pacific joined the Union Pacific at Promontory, Utah. The Central Pacific was financed by Collis P. Huntington, Charles (See Continuation Sheef)

B11. Additional Resource Attributes: (List attributes and codes)

\*B12. References:

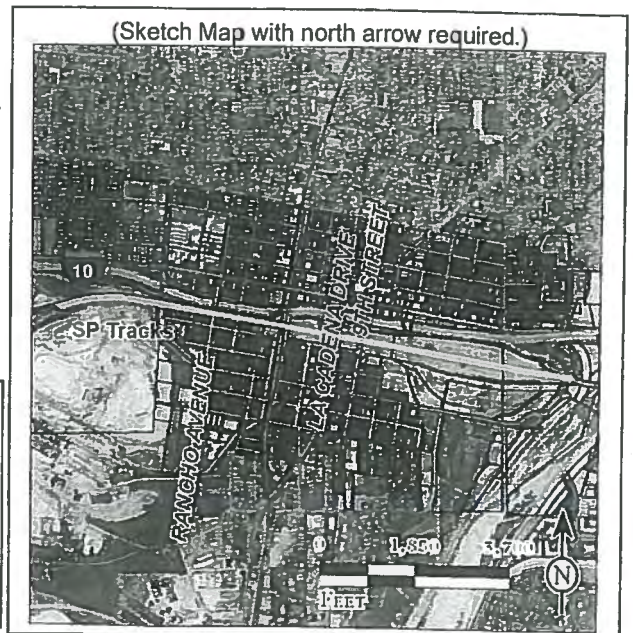
- Aerial Photographs  
1938, 1959, 1968 Provided by GeoSearch from the ASCS collection.
- American Public University  
n.d. Railroads, the Gilded Age. Accessed online in June 2010 at: <http://www.u-s-history.com/pages/h1817.html>.
- American-rails.com  
2007-2010 The Espee, The Friendly Southern Pacific. Accessed online in June 2010 at: <http://www.american-rails.com/southern-pacific.html>.
- Cataldo, Nicholas  
2006 The Earp Clan: the Southern California Years. Black Roads Press, San Bernardino.
- Ingersoll, L.A.  
1904 *Ingersoll's Century Annals of San Bernardino County, 1769 to 1904. Volume One and Two.* Published by the author, Los Angeles, California.  
(See Continuation Sheef)

B13. Remarks:

\*B14. Evaluator: Casey Tibbet, M.A., LSA Associates, Inc., 1500 Iowa Avenue, Suite 200, Riverside, CA 92507

\*Date of Evaluation: May 2010

(This space reserved for official comments.)



State of California — The Resources Agency  
 DEPARTMENT OF PARKS AND RECREATION  
**LINEAR FEATURE RECORD**

Primary # 36-010330 (Update)

HRI # \_\_\_\_\_

Trinomial CA-SBR-10330H

NRHP Status Code 6Z

Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_

Reviewer \_\_\_\_\_

Date \_\_\_\_\_

Page 3 of 5

Resource Name or #: Southern Pacific Railroad segment

L1. Historic and/or Common Name: Union Pacific Railroad

L2a. Portion Described:  Entire Resource  Segment  Point Observation Designation: \_\_\_\_\_

b. Location of point or segment: (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map)  
 This segment runs through the City of Colton and is approximately 1.85 miles long. It extends generally from South Rancho Avenue on the west to South Mt. Vernon Avenue on the east.

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)  
 The segment consists of two sets of railroad ties that each support a pair of rails. A layer of volcanic rocks lines the rail bed. In some areas there are multiple tracks. (Refer to description in Primary Record, page 1)

L4. Dimensions: (In feet for historic features and meters for prehistoric features)

a. Top Width 4' 8.5"

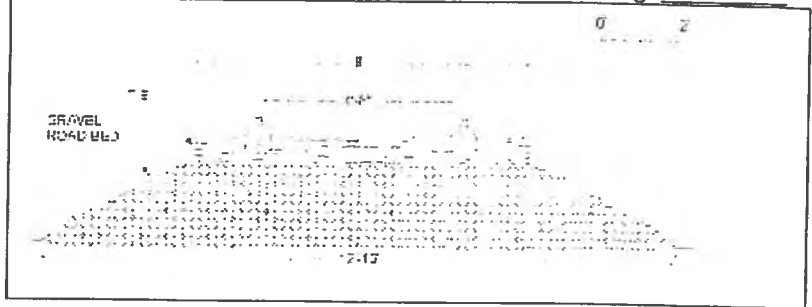
b. Bottom Width 12'-15'

c. Height or Depth Approx. 2'

d. Length of Segment Approx. 1.85 miles

L4e. Sketch of Cross-Section (include scale)

Facing: \_\_\_\_\_



L5. Associated Resources: Various sidings, wyes, and spurs, as well as the former SP depot (extensively altered and currently vacant), the former American Railway Express Company building (altered and vacant), a large metal warehouse, and various sheds and trailers.

L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)

The setting includes I-10 to the north, a historic-period neighborhood (most buildings extensively altered) to the south, and between 9<sup>th</sup> Street and Mount Vernon Avenue is the Colton Rail Yard. (Refer to discussions in Primary Record and BSO Record, pages 1, 2, and 4).

L7. Integrity Considerations:

Although this segment retains integrity of location and design, its integrity of setting and feeling have been significantly compromised. (Refer to discussion in BSO Record, pages 2 and 4)

L8a. Photograph, Map, or Drawing



L8b. Description of Photo, Map, or Drawing: (View, scale, etc.)

Colton Crossing (SPRR tracks in foreground), view to the east-northeast on May 14, 2010. (Also see Primary Record, page 1)

L9. Remarks:

L10. Form Prepared by: (Name, affiliation, and address)

Casey Tibbet, M.A.  
 LSA Associates, Inc.  
 1500 Iowa Avenue, Suite 200  
 Riverside, CA 92507

L11. Date: May 2010

## CONTINUATION SHEET

Primary # 36-010330 (Update)

HRI # \_\_\_\_\_

Trinomial CA-SBR-10330HPage 4 of 5

\*Resource Name or #: (Assigned by recorder)

Southern Pacific Railroad segment\*Recorded by LSA Associates, Inc.\*Date: May 2010X Continuation \_\_\_\_\_ Update**\*B10. Significance (Continued from page 2)**

Crocker, Mark Hopkins, and Leland Stanford, the so-called Big Four. In 1868, the Big Four purchased the Southern Pacific and merged it with the Central Pacific in 1870 (American Public University n.d.). SPRR tracks soon sprawled across Southern California and between 1874 and 1881, tracks were built all across the country (ibid.). From its inception, the SPRR encouraged development of small family farms along its routes (Orsi 2005:106). In the 1860s through the mid-1870s, the SPRR published simple flyers advertising their lands (ibid.). These promotional endeavors increased in the late 1870s and into the 1880s with the publication of detailed brochures that often included maps and were the precursors to the elaborate advertising for which the railroad would become famous (ibid.). These concentrated marketing efforts greatly enhanced the role the SP played in the settlement and development of numerous communities along its routes, including Colton. In some places, such as Modesto, Turlock, Tulare, Delano, and Colton, the SPRR took things a step further and became involved in the development of hotels, hospitals, churches, schools, and parks and aggressively promoted settlement (ibid.:109 and 111).

In 1875, the subject railroad segment was completed through Colton, helping the fledgling community get off the ground. In the 1880s, the SPRR served the Southwest, including El Paso, Texas, and extended into northern Oregon (American-rails.com 2007–2010). During this period, at least in the Riverside-San Bernardino area, SPRR had a virtual monopoly and charged exorbitant rates for freight. This made construction of the California Southern from San Diego, through Colton, to San Bernardino in 1883, an attractive alternative to local residents. The California Southern (later the Atchison, Topeka and Santa Fe [ATSF] and now the Burlington Northern Santa Fe [BNSF]) crosses the SPRR at Colton Crossing, where there was a standoff led by the SPRR and Virgil Earp, prohibiting construction of the crossing. Standoffs, such as the one at Colton Crossing, were a fairly common occurrence in California and the country in the late 19<sup>th</sup> century. There are several instances in United States history where a private railroad attempted to cross the tracks of another, resulting in lawsuits or even violence. These standoffs are known as "frog wars," named after the component of a railway switch that allows two tracks to join or cross. A particularly famous frog war happened in Hopewell, New Jersey, in 1876 between the Pennsylvania Railroad and the Delaware and Bound Brook Railroad. In that instance, trains blocked the tracks and an armed fight broke out that included more than 100 people and required military involvement. Other examples of well-known frog wars include the Greater Grand Crossing feud in Chicago in 1853; Denver and Rio Grande Western Railroad vs. Atchison, Topeka & Santa Fe Railroad vs. Union Pacific Railroad all vying for mountain passes in Colorado in the 1870s; and the Pennsylvania Railroad vs. the New Jersey Junction Connecting Railway (Lehigh Valley Railroad) in New Jersey in 1897. Ultimately, the California Southern crossed the SPRR in Colton, increasing competition and improving Colton's situation as a shipping center (Jones 1951).

In 1886, the first refrigerated cars were introduced contributing to the economic boom of the Southern California citrus industry and in 1906, SPRR and UPRR formed the Pacific Fruit Express, dedicated to transporting goods that needed refrigeration (American Public University n.d.). The SPRR continued to grow throughout the early part of the 20<sup>th</sup> century and by the 1950s, it owned 15,000 miles of track, predominantly in the Southwest. Among its many achievements are three important main lines which remain important arteries today: "the *Overland Route* (San Francisco to the Midwest), the *Golden State Route* (the Southwest to Kansas City), and the *Sunset Route* (the Pacific Coast to the Gulf Coast). In addition, SPRR had numerous famous passenger trains bedecked in its celebrated "Daylight" livery of bright red and orange (with black and white trim)..." (American-rails.com 2007–2010). Despite the railroad's success, in the 1970s, SPRR suffered and in the late 1980s, it was purchased by the Denver and Rio Grande Western, which made the unusual decision to keep the SPRR name (ibid.). In 1996, SPRR merged with the smaller UPRR, a move that proved quite difficult for UPRR as it was not equipped to handle the increased operations (ibid.). However, by the end of the 1990s, UPRR was once again running smoothly (ibid.).

**Significance Evaluation.**

Under National Register criterion A and California Register criterion 1, the railroad as a whole played an important role in the history of California and in the early development and success of the City of Colton. The City is named for a former SPRR Vice President and the SPRR was apparently involved in the construction of various commercial and civic buildings, as well as the marketing of the town. In addition, the large rail yard that was once located in the project APE and along a portion of the subject rail segment, contributed greatly to the area's early economic success. However, the SPRR monopoly did not always work to the advantage of Colton. In 1883, a portion of this segment known as Colton Crossing was the location of a standoff with the California Southern, a competing railroad associated with the Atchison, Topeka & Santa Fe (ATSF). As discussed above, this type of standoff or frog war was a fairly common occurrence in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries throughout California and the country and, in this case, was one of a series of events that led to the inevitable breaking of the SPRR monopoly. Ultimately, the California Southern crossed the SPRR in Colton increasing competition and improving Colton's situation as a shipping center (Jones 1951). However, after just two years, the ATSF built its mainline from San Bernardino to Los Angeles and Colton was relegated to branch status; thus, the real benefit of the crossing was reaped by San Bernardino, which transformed from a stage station to a railroad center (Jones 1951:25; Ingersoll 1904:377).

The SPRR benefited many communities along its route, some of which it founded and others that simply prospered because of it. The City of Colton is one of those cities that benefited greatly from the attention it received from the SPRR, especially during the community's early history. However, this segment of the SPRR and its setting have experienced numerous alterations which have severely compromised its integrity of setting, feeling, and association. For example, the vast majority of the (See *Continuation Sheet*)

**CONTINUATION SHEET**

**\*B10. Significance (Continued from page 4)**

rail yard buildings, features, and tracks, as well as all but two historic-period railroad related buildings have been removed. In addition, construction of I-10, the La Cadena underpass, and the Rancho Avenue overpass, along with alterations to the two remaining historic-period buildings (the former SPRR depot and the former American Railway Express Company building) have severely compromised the historic setting and diminished the historic character of the area as a whole. As a result of all of these changes, there is nothing physical at the crossing or along this segment of the SPRR that demonstrates or conveys any significance under this criterion. Therefore, it is not eligible for listing in the National Register under this criterion.

Under National Register criterion B and California Register criterion 2, the railroad as a whole is associated with persons important in history, but this segment does not appear to be more closely associated with those people than any other part of the railroad. As discussed above, Colton Crossing has a minor association with Virgil Earp in his capacity as a law enforcement officer. In 1881, Virgil was Chief of Police in Tombstone, Arizona when the famed shootout at the O.K. Corral occurred. Shortly thereafter, to recuperate, he moved to Colton where his parents lived. In 1883, acting on behalf of the SPRR, Virgil stood guard against the construction of the railroad crossing by California Southern until a court order was produced allowing construction to proceed. In 1887, Virgil became the City's first Marshall and he lived in a home that still stands just north of I-10. He remained in Colton until 1893 when he moved to Vanderbilt. He returned to Colton for a short time in 1904 before moving to Goldfield where he died in 1905. Although Virgil Earp is a known figure in history, he is most famous as the brother of Wyatt Earp and for his involvement in the O.K. Corral shootout, rather than for his individual accomplishments as a lawman or any historically important contributions to the field of law enforcement. While he may have gained some importance in local history as the City's first Marshall, he was not elected to this position until four years after the Colton Crossing dispute. Further, the crossing incident was just one of numerous law enforcement situations in which Virgil was involved during his long career. For these reasons, this segment of railroad does not appear to be significant for its association with Virgil Earp.

Under National Register criterion C and California Register criterion 3, although it has necessarily been modernized over time, this segment embodies the typical characteristics of railroad construction and is representative of thousands of miles of other track in the region. Neither the tracks nor the few related features appear to be the work of a master and neither possesses high artistic value. As discussed above, the crossing itself is not particularly unique as there are numerous at-grade rail-to-rail crossings in California and throughout the country. Therefore, neither this segment nor the crossing appears to be significant under this criterion. Under National Register criterion D and California Register criterion 4, which is usually associated with archaeological resources, this segment of the railroad has not yielded, nor is it likely to yield, information important in history or prehistory. In rare instances, structures can serve as sources of important information about historic construction materials or technologies under criteria D/4. However, this type of property is otherwise well-documented; it is well represented locally and on a statewide level, both in written and visual materials and there are better examples of railroads elsewhere in the area/region/state. It does not appear to be an important source of primary information.

For these reasons, this segment of the railroad does not appear to meet the criteria for listing in the National Register or the California Register. It would also not be a contributing segment to the historical significance of the overall railroad, should the railroad as a whole be determined significant. Although the railroad segment was not evaluated under the local preservation ordinance, research indicates that it is not currently listed in the City's register of historic resources or districts.

It should be noted that the larger area within which this segment is located was considered for potential as a historic district since it is the location of the original the Southern Pacific rail yard in Colton. However, most of the rail yard buildings have been demolished and tracks have been removed/realigned. Therefore, the area appears to lack the integrity necessary to qualify as a historic district.

**\*B12. References: (Continued from page 2)**

Jones, Clark Harding

1951 A History of the Development and Progress of Colton, California 1873-1900. A Masters thesis on file at the Colton Public Library.

Orsi, Richard J.

2005 Sunset Limited, The Southern Pacific Railroad and the Development of the American West 1850-1930. University of California Press, Berkeley, California.

Sanborn Fire Insurance Maps

1885, 1887, 1888, 1891, 1894, 1907, and 1950 Accessed online through the Los Angeles Public Library at: <http://www.lapl.org/>.

*The Press and Horticulturist*

1883 Railroad War, C.S.R.R. vs. S.P.R.R. August 11, page 2. On file at the University of California, Riverside, Rivera Library.

Union Pacific Railroad

1895 Map of the Southern Pacific Railroad through Colton. Obtained from John Bromley, Director of Historic Programs, Union Pacific Railroad.



State of California — The Resources Agency  
 DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

1066291  
 10/09  
 Primary # P-36-010330 (update)  
 HRI #  
 Trinomial CA-SBR-10330H (update)  
 NRHP Status Code

Other Listings  
 Review Code                      Reviewer                      Date

Page 1 of 2                      \*Resource Name or #: Union Pacific Railroad Crossing at Anderson Street

P1. Other Identifier: Southern Pacific Railroad

\*P2. Location:  Not for Publication     Unrestricted

\*a. County: San Bernardino

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

\*b. USGS 7.5' Quad: San Bernardino South

Date: 1967 (PR 1988) T 1S ; R 4W; unsectioned 1/4 of 1/4 of Sec ; S.B B.M.

c. Address:

City: San Bernardino

Zip:

d. UTM: Zone: 11 ;                      mE/                      mN (G.P.S.)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: approx. 1,078 feet amsl

This segment is located in the City of Loma Linda, at Anderson Street.

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This segment of the Union Pacific Railroad (formerly the Southern Pacific Railroad) is located in the City of Loma Linda, at Anderson Street. This area is urbanized. The railroad appears to be subject to ongoing routine maintenance, which would include replacement of tracks and associated materials as needed. The track bed is ballast and ties have been replaced by concrete.

Because of the alterations to the railroad tracks and the alteration of setting over the past 100 years since the inception of the railroad, this segment does not retain requisite integrity to qualify for listing in the National or California registers.

\*P3b. Resource Attributes: (List attributes and codes) AH7- Railroad Grade

\*P4. Resources Present:     Building     Structure     Object     Site     District     Element of District     Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)



P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

P5b. Description of Photo: (View, date, accession #)

Photograph of the railroad crossing at Anderson Street, view to west, Photo #4513.

\*P6. Date Constructed/Age and Sources:

Historic

Prehistoric     Both

circa 1882

\*P7. Owner and Address:

Union Pacific Railroad  
 1400 Douglas Street  
 Omaha, NE 68179

\*P8. Recorded by: (Name, affiliation, and address)

Caprice D. (Kip) Harper  
 SWCA Environmental Consultants  
 625 Fair Oaks Avenue, Suite 190  
 South Pasadena, CA 91030

\*P9. Date Recorded:

October 7, 2008

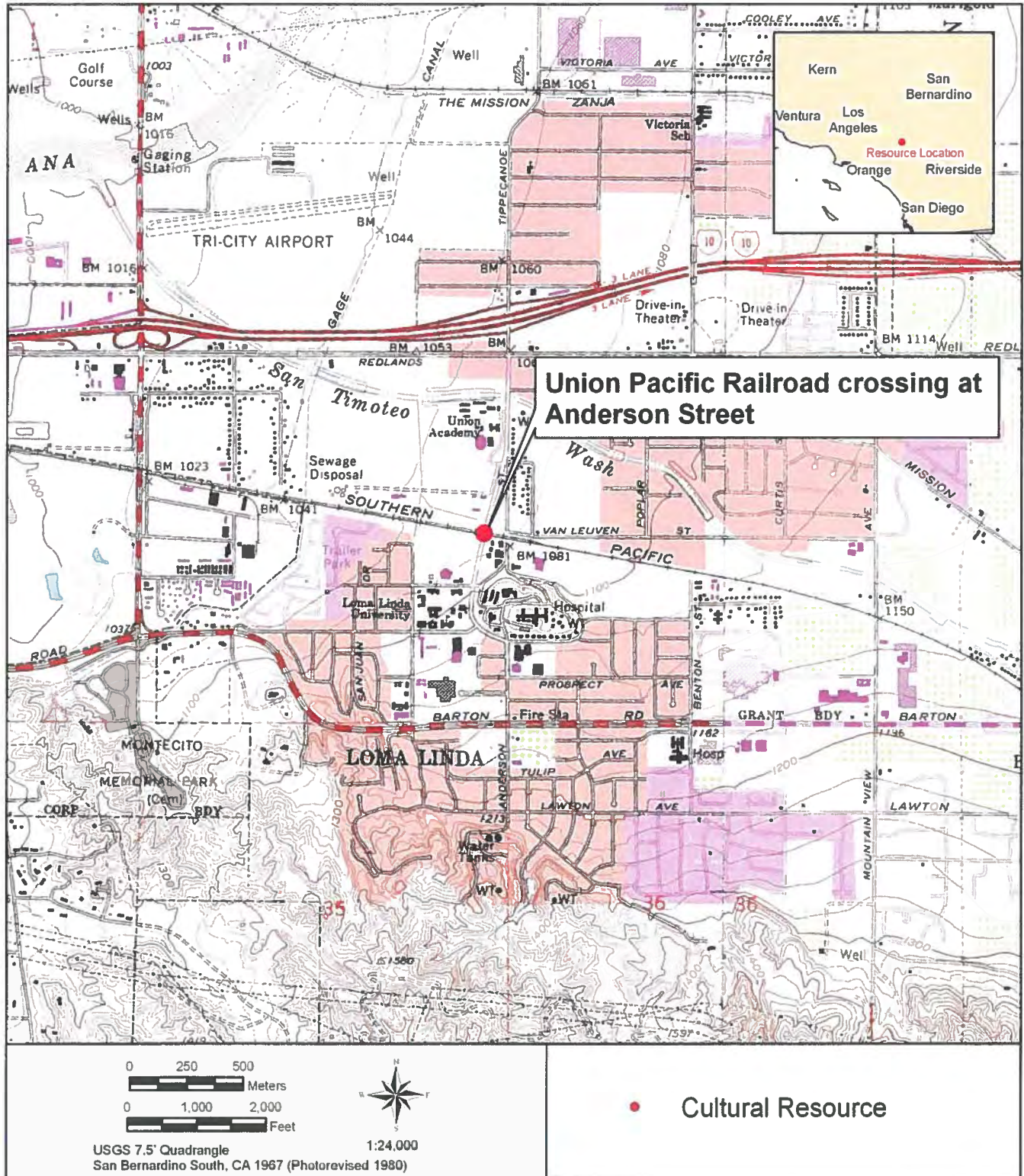
\*P10. Survey Type: (Describe) Intensive

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.")

Cultural Resources Technical Report sbX E Street Corridor BRT Project, Cities of San Bernardino and Loma Linda, San Bernardino County, California (SWCA Environmental Consultants 2008).

Primary Record for P-36-010330 (Askar 1999)

\*Attachments:  NONE     Location Map     Sketch Map     Continuation Sheet     Building, Structure, and Object Record  
 Archaeological Record     District Record     Linear Feature Record     Milling Station Record     Rock Art Record  
 Artifact Record     Photograph Record     Other (List):



1065614

10/04

State of California — The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
PRIMARY RECORD

Primary # P-36-010330

HRI # \_\_\_\_\_

Trinomial CA-SBR-10330/H

NRHP Status Code \_\_\_\_\_

Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_

Reviewer \_\_\_\_\_

Date \_\_\_\_\_

Page 1 of 3

\*Resource Name or #: (Assigned by recorder) Southern Pacific Railroad -Hunts Lane Crossing

P1. Other Identifier: \_\_\_\_\_

\*P2. Location:  Not for Publication  Unrestricted

\*a. County San Bernardino

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

\*b. USGS 7.5' Quad San Bernardino South Date 1967 PR 1980 T 1S; R 4W; unsectioned portion; SB B.M.

c. Address Hunt's Lane South City San Bernardino and Colton Zip \_\_\_\_\_

d. UTM: (Give more than one for large and/or linear resources) Zone 11; East end: 474310 mE / 3768440 mN  
West end: 472640 mE / 3768790 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)

From Interstate 10, exit Waterman Avenue south; turn right on Redlands Boulevard and proceed west for approximately one-half mile. Turn left on Hunts Lane and proceed south for approximately one-quarter mile. Hunts Lane crosses the railroad at the midpoint of this segment. This segment of railroad extends from Interstate 215 on the west to Waterman Avenue on the east.

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

This one-mile segment of line is a portion of the Southern Pacific Railroad (SPRR). The SPRR was constructed in 1876 as part of the transcontinental route from Los Angeles to Texas. The line from Los Angeles to the cities of San Bernardino and Colton (Hunts Lane) was completed the previous year. This segment is in good condition and is still in use.

\*P3b. Resource Attributes: (List attributes and codes) Railroad route/line (AH7)

\*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  Other (Isolates, etc.)

P5a. Photograph or Drawing: (Photo required for buildings, structures, and objects.)



P5b. Description of Photo: (View, date, accession #)

CA-SBR-10330 ph. View west of Southern Pacific line crossing South Hunts Lane.

\*P6. Date Constructed/Age and

Sources:  Historic

Prehistoric  Both

1875; Gudde, Erwin G. 1969

California Place Names

\*P7. Owner and Address:

Southern Pacific Railroad

\*P8. Recorded by: (Name, affiliation, and address): Riordan Goodwin

LSA Associates, Inc.

1650 Spruce Street, 5<sup>th</sup> Floor

Riverside, CA 92507

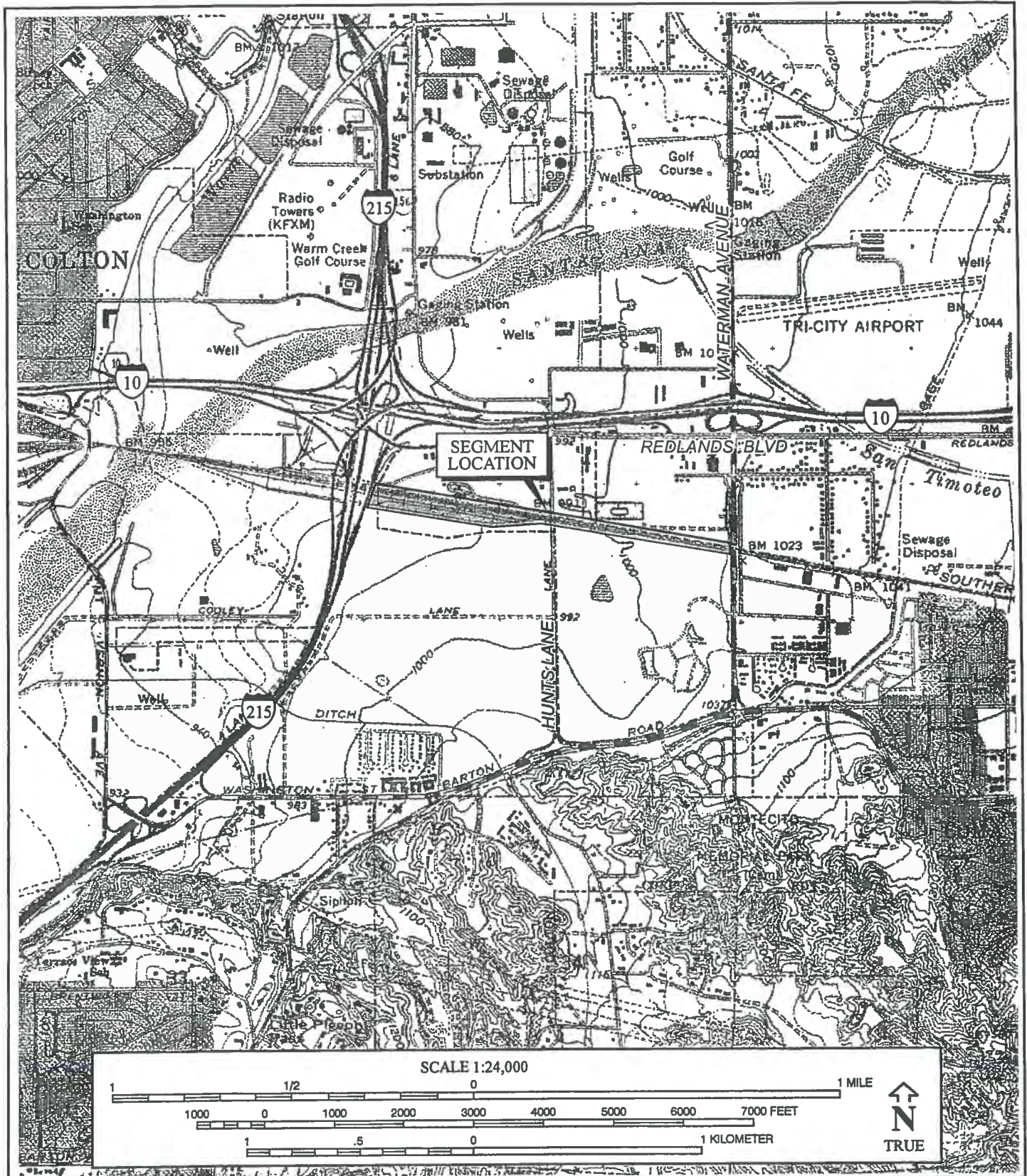
\*P9. Date recorded: 6/6/02

\*P10. Survey Type: (Describe)

Road

\* P11. Report citation: (Cite survey report and other sources or enter "none.") LSA Associates, Inc. 2002 Cultural Resources Assessment, Hunts Grade Separation Project, San Bernardino, California.

Attachments:  None  Location Map  Sketch Map  Continuation Sheet  Building, Structure, and Object Record  Archaeological Record  District Record  Linear Feature Record  Milling Station Record  Rock Art Record  Artifact Record  Photograph Record  Other (List) \_\_\_\_\_



State of California — The Resources Agency  
**DEPARTMENT OF PARKS AND RECREATION**  
**LINEAR FEATURE RECORD**

Primary # P-36-010330

HRI # \_\_\_\_\_

Trinomial CA-SBR-10330/H

Page 3 of 3

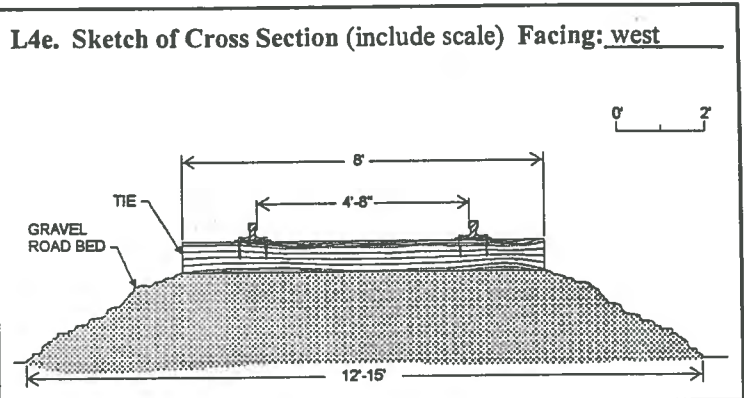
\*Resource Name or #: (Assigned by recorder) Southern Pacific Railroad -Hunts Lane Crossing

L1. Historic and/or Common Name: \_\_\_\_\_  
 L2a. Portion Described:  Entire Resource  Segment  Point Observation Designation: \_\_\_\_\_

b. Location of point or segment: (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map) East end: 474310 mE / 3768440 mN; West end: 472640 mE / 3768790 mN

L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)  
 This is a segment of standard gauge line with multiple sidings west of Hunts Lane

- L4. Dimensions: (In feet for historic features and meters for prehistoric features)  
 a. Top Width standard railroad gauge (~4'-8")  
 b. Bottom Width ~12' to 15'  
 c. Height or Depth ~2'-6"  
 d. Length of Segment ~1/2 mile

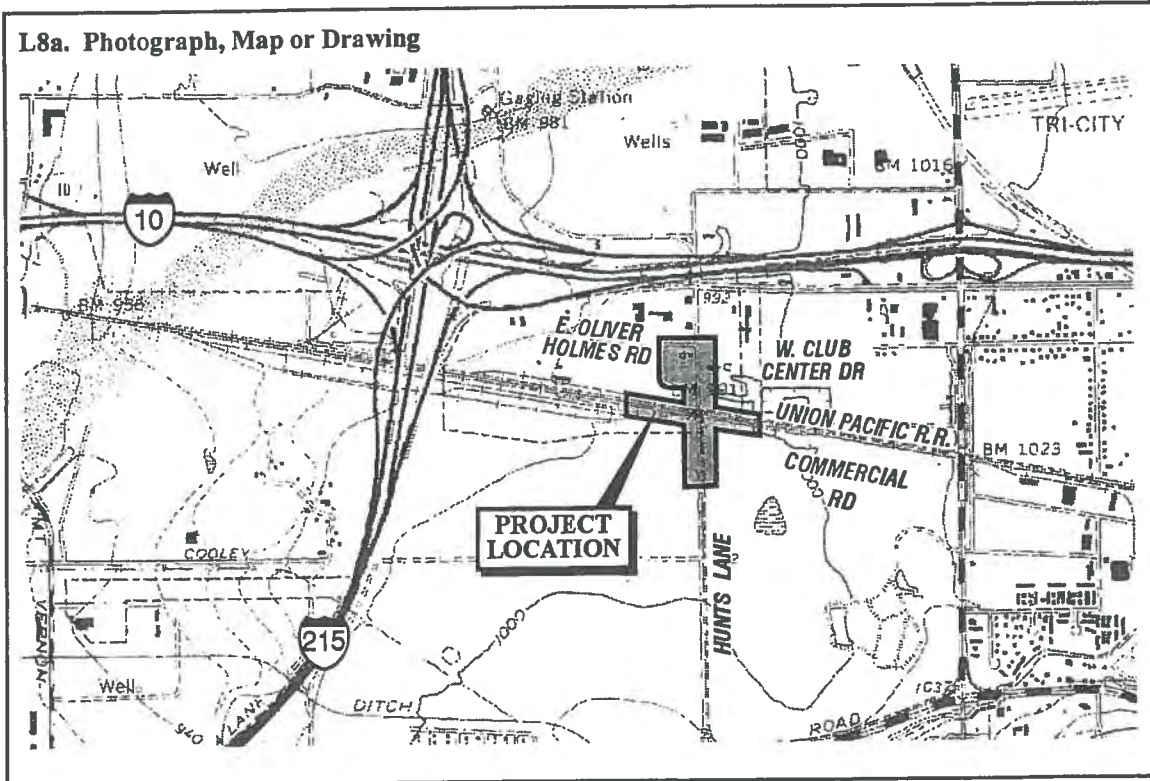


L5. Associated Resources:  
 Con-Agra grain mill with multiple sidings on north side of Southern Pacific Line.

L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.)  
 This segment of line is in a built-up urban environment, has virtually no slope and runs across Hunts Lane. The city limits between San Bernardino and Colton run along this portion of Hunts Lane.

L7. Integrity Considerations: This segment of the railroad line is currently in good condition and still in use.

L8a. Photograph, Map or Drawing



L8b. Description of Photo, Map, or Drawing (view, scale, etc.)  
View from San Bernardino South  
USGS quad 1:12000

L9. Remarks:  
 L10 Form  
 Prepared by:  
Riordan Goodwin  
LSA Associates, Inc.  
 L11. Date: 6/12/02

**PRIMARY RECORD**

Primary # P36 010330

HRI # \_\_\_\_\_

Trinomial CA-SBR-10,330 H

NRHP Status Code \_\_\_\_\_

4/01

Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_

Reviewer \_\_\_\_\_

Date \_\_\_\_\_

Page 1 of 12

\*Resource Name or #: (Assigned by Recorder) C-Los Angeles-A-1

P1. Other Identifier: Union Pacific Railroad, Southern Pacific Railroad

\*P2. Location:  Not for Publication  Unrestricted

\*a. County Los Angeles and Orange Riverside San Bernardino

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

\*b. USGS 7.5' Quad see below Date \_\_\_\_\_ T \_\_\_\_\_; R \_\_\_\_\_; \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4 of Sec \_\_\_\_\_; \_\_\_\_\_ B.M.

c. Address \_\_\_\_\_ City \_\_\_\_\_ Zip \_\_\_\_\_

d. UTM: (Give more than one for large and/or linear resources) Zone: \_\_\_\_\_; \_\_\_\_\_ mE/ \_\_\_\_\_ mN

e. Other Locational Data: (e.g. parcel #, directions to resource, elevation, etc., as appropriate)

This segment of the railroad is located on the following USGS quads: Los Angeles (1966, PR 1981), El Monte (PR 1994), Baldwin Park (PR 1981), La Habra (PR 1981), San Dimas (PR 1981), Ontario (PR 1981), Guasti (PR 1981), Fontana (PR 1980), and San Bernardino South (PR 1980).

\*P3a. Description (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

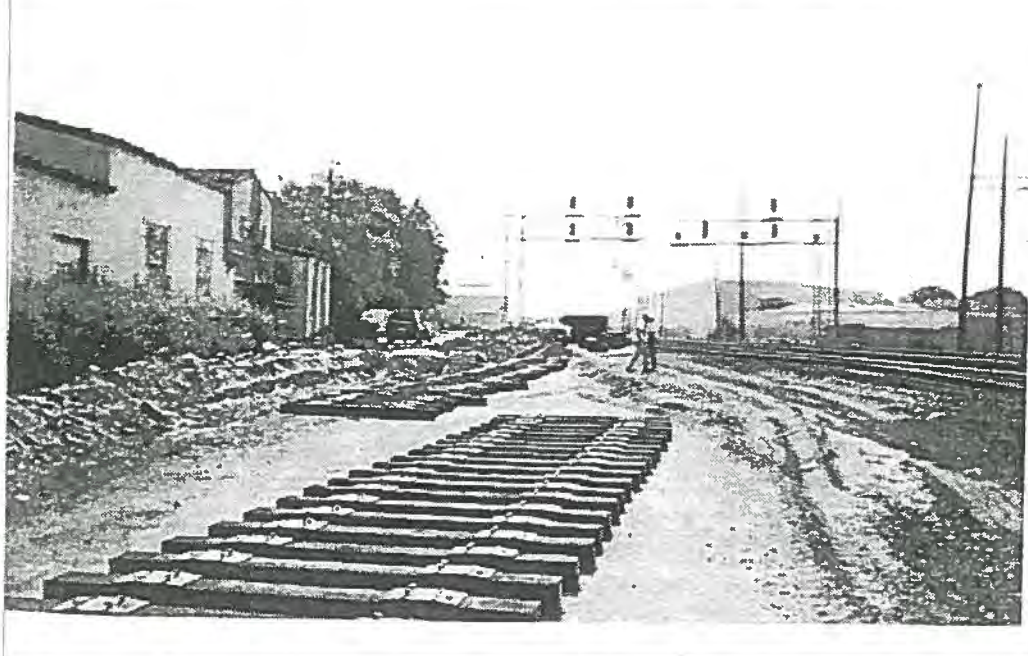
The Union Pacific Railroad (historically the Southern Pacific Railroad) is a standard gauge railroad which runs through the Los Angeles area. It is part of a larger resource, the Union Pacific Railroad line. Numerous associated features include railroad stations, sidings, spurs, and railyards.

The rail lines that were included in our survey areas were all acquired by Union Pacific, but were originally other railroad lines. These include the Southern Pacific, and the Los Angeles and Salt Lake Railroad. The Southern Pacific through Los Angeles area was constructed in the 1870s, and originally ran south from Los Angeles through Watts and Compton to Wilmington, and east from Los Angeles through Alhambra, San Gabriel, Puente, Pomona and on through Colton before heading toward Yuma. ( See continuation sheet.)

\*P3b. Resource Attributes: (List attributes and codes) HP39. Other - Railroad

\*P4. Resources present:  Building  Structure  Object  Site  District  Element of District  Other (isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects)



P5b. Description of Photo: (View, date, accession #) \_\_\_\_\_

\*P6. Date Constructed/Age and

Sources:  Historic

Prehistoric  Both

1870s - present

\*P7. Owner and Address:

Union Pacific Railroad

\*P8. Recorded by: (Name, affiliation, and address) S. Ashkar

Jones & Stokes Associates, Inc.

2600 V Street, Suite 100

Sacramento, CA 95818

\*P9. Date Recorded: 6/22/99

\*P10. Survey Type: (Describe)

Cursory and Intensive pedestrian

surveys

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Jones & Stokes. 1999. Cultural Resources Inventory for the Williams

Communication Fiber Optic alignment between Los Angeles and Riverside. Los Angeles and Riverside Counties, California.

\*Attachments: NONE  Location Map  Sketch Map  Continuation Sheet  Building, Structure, and Object Record

Archaeological Record

District Record

Linear Feature Record

Milling Station Record

Rock Art Record

Artifact Record

Photograph Record

Other (List): \_\_\_\_\_

**BUILDING, STRUCTURE, AND OBJECT RECORD**

Page 2 of 12

\*NRHP Status Code \_\_\_\_\_

\*Resource Name or # (Assigned by recorder) C-Los Angeles-A-1

B1. Historic Name: Southern Pacific Railroad

B2. Common Name: Union Pacific Railroad

B3. Original Use: railroad

B4. Present Use: railroad

\*B5. Architectural Style: \_\_\_\_\_

\*B6. Construction History: (Construction date, alterations, and date of alterations)

Major portion of track and associated spurs, sidings, and station were constructed between 1869 and 1905. The tracks are currently in use and maintenance and replacement continue.

\*B7. Moved?  No  Yes  Unknown Date: \_\_\_\_\_ Original Location: \_\_\_\_\_

\*B8. Related Features:

Numerous sidings; spurs, stations and railyards

B9a. Architect: \_\_\_\_\_

b. Builder: \_\_\_\_\_

\*B10. Significance: Theme: Railroad

Area: California, U.S.

Period of Significance: 1869 to present

Property Type: railroad

Applicable Criteria: A, B

(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Portions of this railroad are additions to the first transcontinental railroad. Other portions were instrumental in the development of Los Angeles and other communities as business centers. The modern Union Pacific Railroad system is made up of other, often smaller historic railroads that helped to form the economy and population of Southern California. The rail system enabled the transportation of goods to ports and the emigration of large numbers of people. The railroad is also associated with a number of important historical figures, including the Big Four (Mark Hopkins, Collis P. Huntington, Leland Stanford, and Charles Crocker). Therefore, the historic railroad is eligible for NRHP listing under Criteria A and B.

B11. Additional Resource Attributes: (List attributes and codes) \_\_\_\_\_

\*B12. References:

(Sketch Map with north arrow required.)

B13. Remarks:

\*B14. Evaluator: S. Ashkar Jones & Stokes

2600 V Street, Suite 100 Sacramento, CA 95818-1914

\*Date of Evaluation: 6/22/99

(This space reserved for official comments.)

**CONTINUATION SHEET**

Primary # R36-010330

HRI # \_\_\_\_\_

Trinomial SBR-10,3304

Page 3 of 12

\*Resource Name or # (Assigned by recorder) C-Los Angeles-A-1

\*Recorded by S. Ashkar, M. Avina, E. Prendergast, J. Doty

\*Date 6/22/99

Continuation

Update

P3a. Description

Another Southern Pacific Line headed southeast from Watts through Norwalk and Buena Park to Santa Ana.

The San Pedro, Los Angeles and Salt Lake Railroad Company was formed in 1901 for the purpose of constructing a rail line between Los Angeles and Salt Lake City. The line formally opened on May 1, 1905. The line extended north from Los Angeles to Las Vegas and on to Salt Lake City. Other lines ran from Los Angeles south to Wilmington via Bells and Workman, and east from Los Angeles through Pico, Clayton, paralleling the Southern Pacific line through Walnut, Sprada and Ontario and dipping south from there towards Riverside. The name was shortened to the Los Angeles and Salt Lake in 1916. In 1921, the line became the southwestern arm of the Union Pacific. (Fickewirth 1992; Hofsommer 1986; Myrick 1992.)

The Southern Pacific eventually absorbed the smaller rail lines and the Southern Pacific emerged as the name for the system in 1884 when the Southern Pacific Company of Kentucky was incorporated.

References:

Fickewirth, A. A. 1992. *California Railroads*. Golden West Books. San Marino, California

Hofsommer, Don L. 1986. *The Southern Pacific, 1901-1985*. Texas A & M University Press. College Station, Texas.

Myrick, D. F. 1992. *Railroads of Nevada and Eastern California. Volume II. Southern Roads*. University of Nevada Press. Reno, Nevada.



# LOCATION MAP

Page 4 of 12

\*Resource Name or #: C-Los Angeles - A-1; Southern Pacific Railroad

\*Map Name: Los Angeles, California

\*Scale: 1:80,000 (1"=6,666')

\*Date of Map: MR 1994



Scale = 1:80,000

Base map: USGS 7 5-series Los Angeles,  
California, quadrangle (1966 MR 1994)



# LOCATION MAP

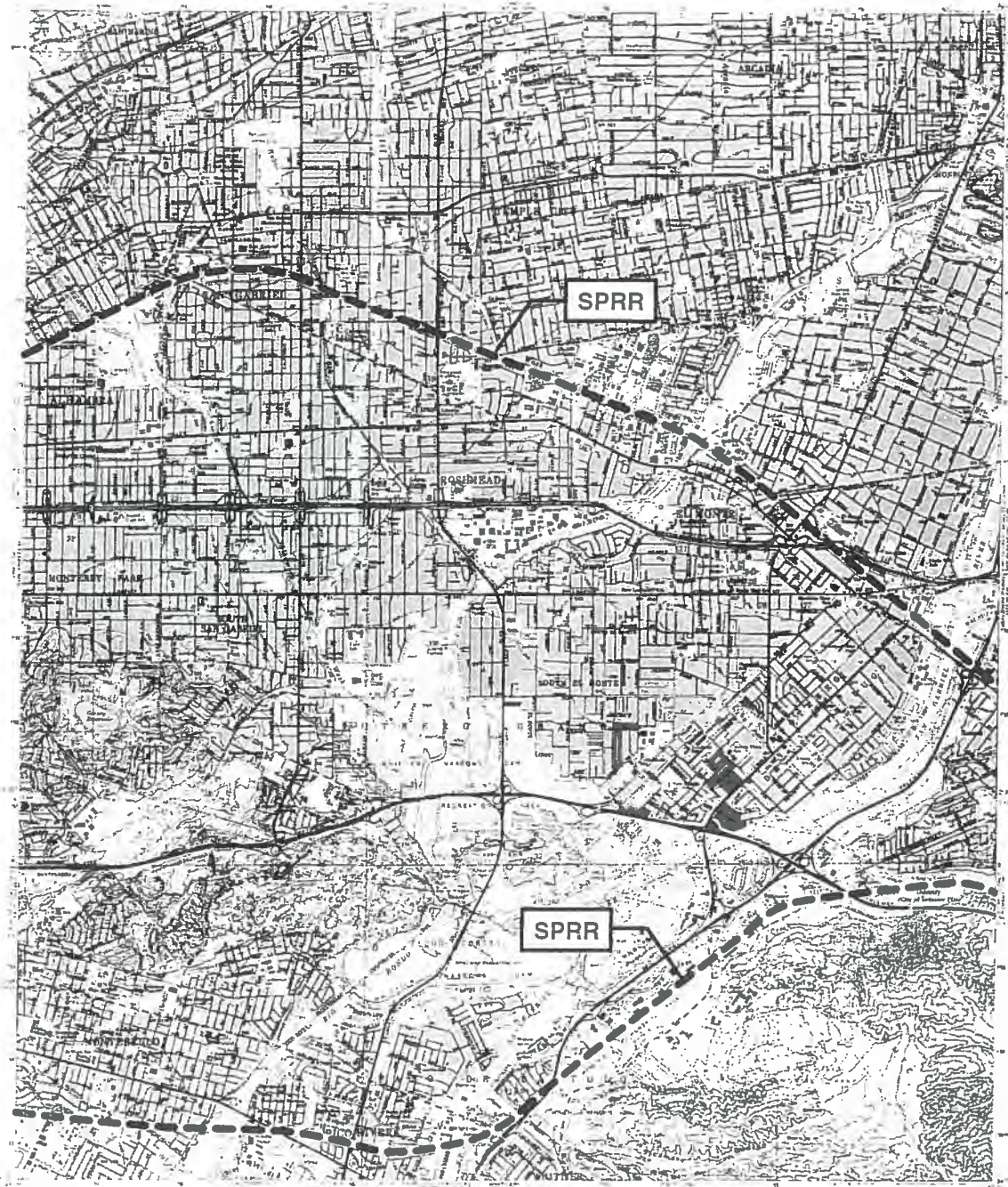
Page 5 of 12

\*Resource Name or #: C-Los Angeles - A-1; Southern Pacific Railroad

\*Map Name: El Monte, California

\*Scale: 1:80,000 (1"=6,666')

\*Date of Map: MR 1994



Scale = 1:80,000

Base map: USGS 7.5-series El Monte  
California, quadrangle (1966 MR 1994)



# LOCATION MAP

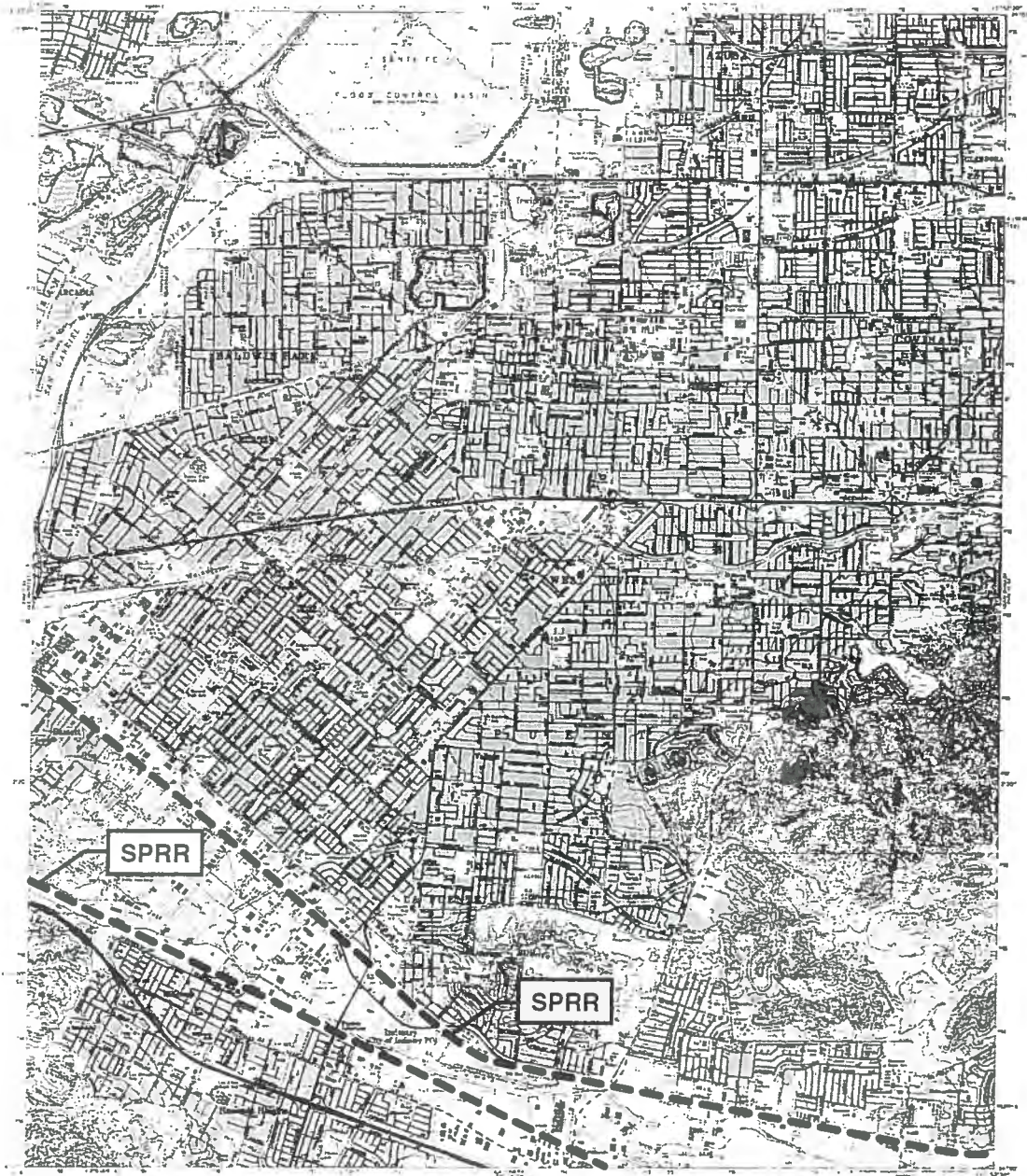
Page 6 of 12

\*Resource Name or #: C-Los Angeles - A-1; Southern Pacific Railroad

\*Map Name: Baldwin Park, California

\*Scale: 1:80,000 (1"=6,666')

\*Date of Map: PR 1981



Scale = 1:80,000

Base map: USGS 7.5-series Baldwin Park,  
California, quadrangle (1966, PR 1981)



# LOCATION MAP

Primary # P36-010330

HRI # \_\_\_\_\_

Trinomial SBR-10,330A

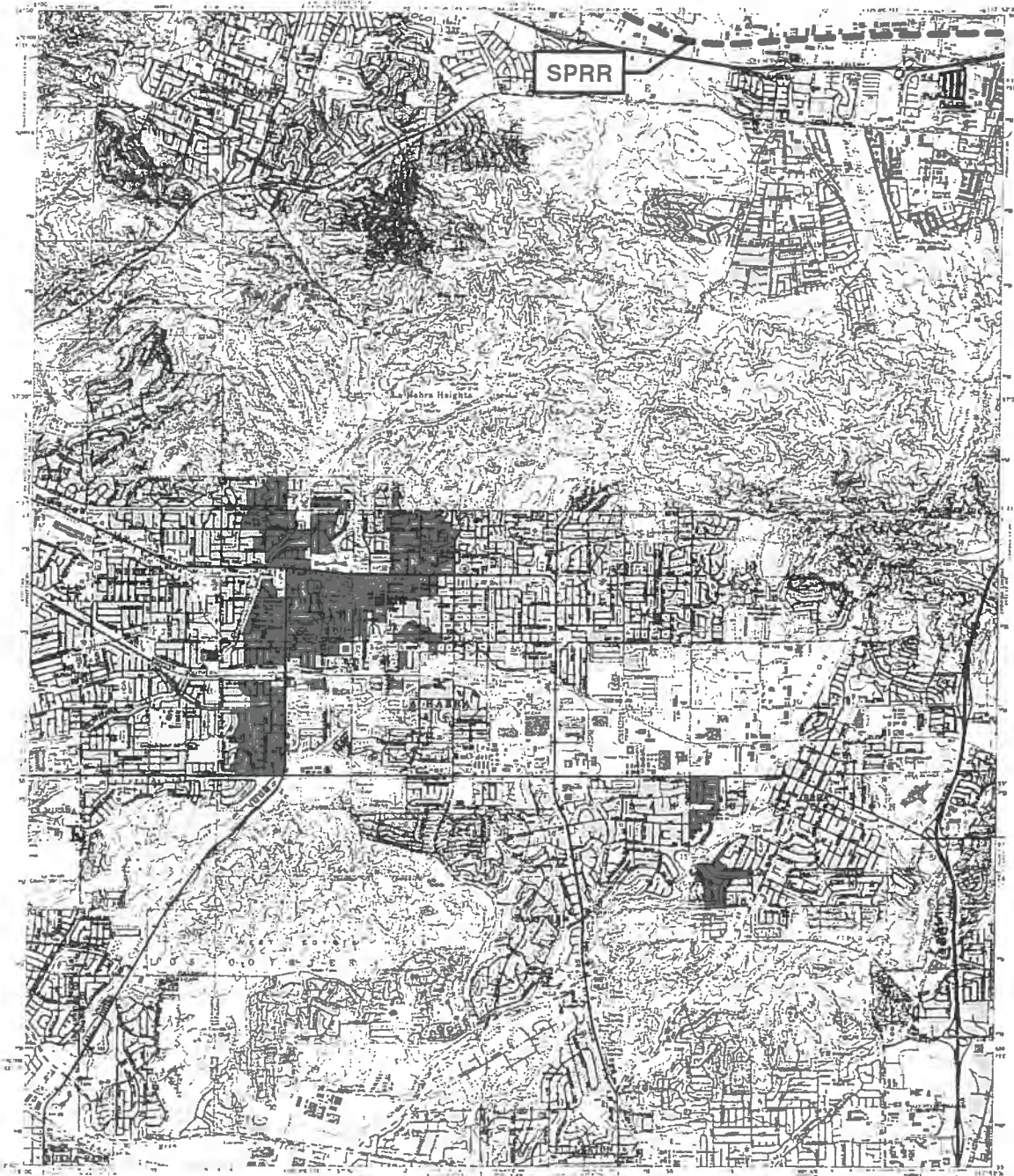
Page 7 of 12

\*Resource Name or #: C-Los Angeles - A-1; Southern Pacific Railroad

\*Map Name: La Habra, California

\*Scale: 1:80,000 (1"=6,666')

\*Date of Map: PR 1981

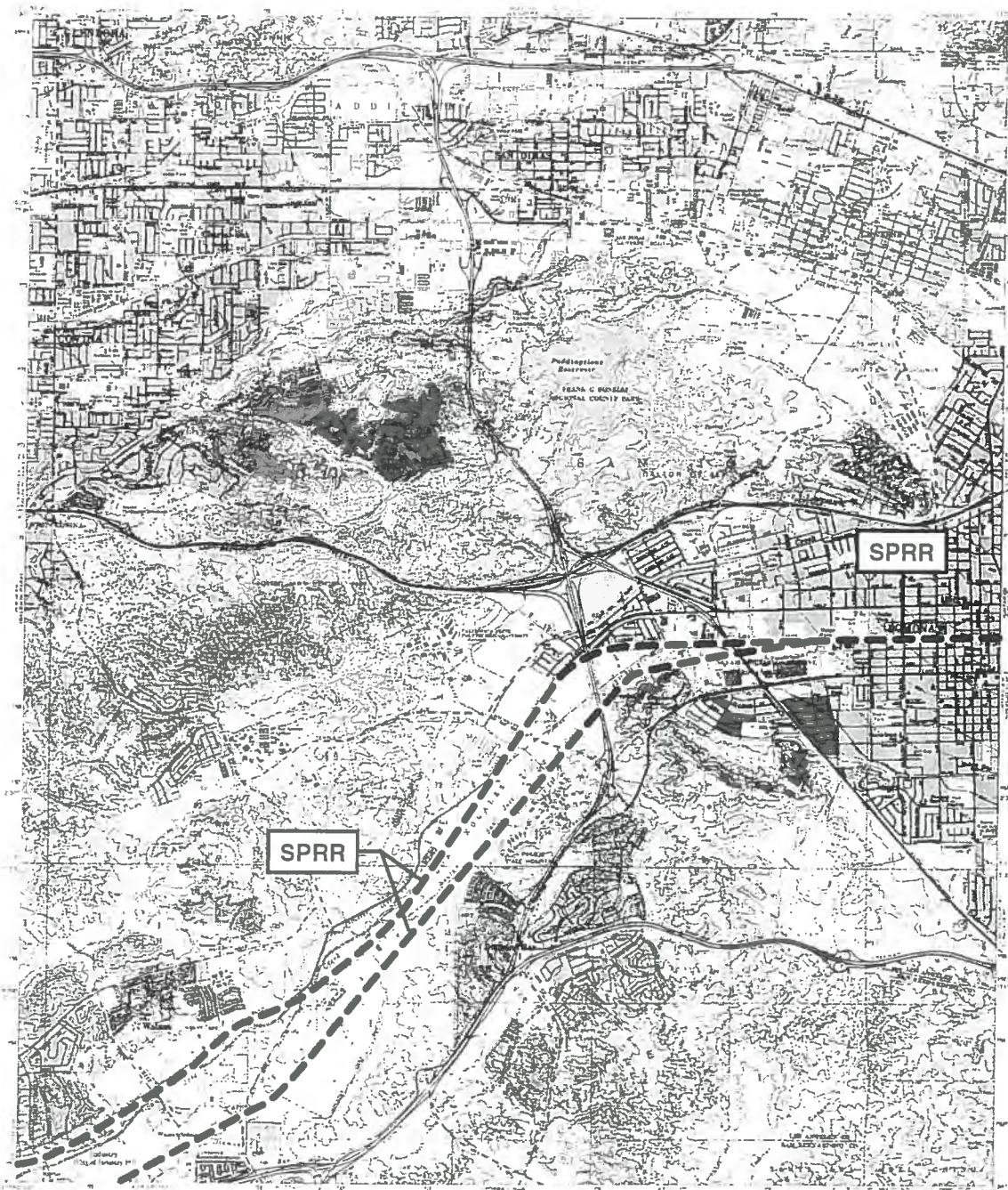


Scale = 1:80,000

Base map: USGS 7.5-series La Habra, California, quadrangle (1964, PR 1981)



# LOCATION MAP



Scale = 1:80,000

Base map: USGS 7.5-series San Dimas, California, quadrangle (1966 PR 1981)



# LOCATION MAP

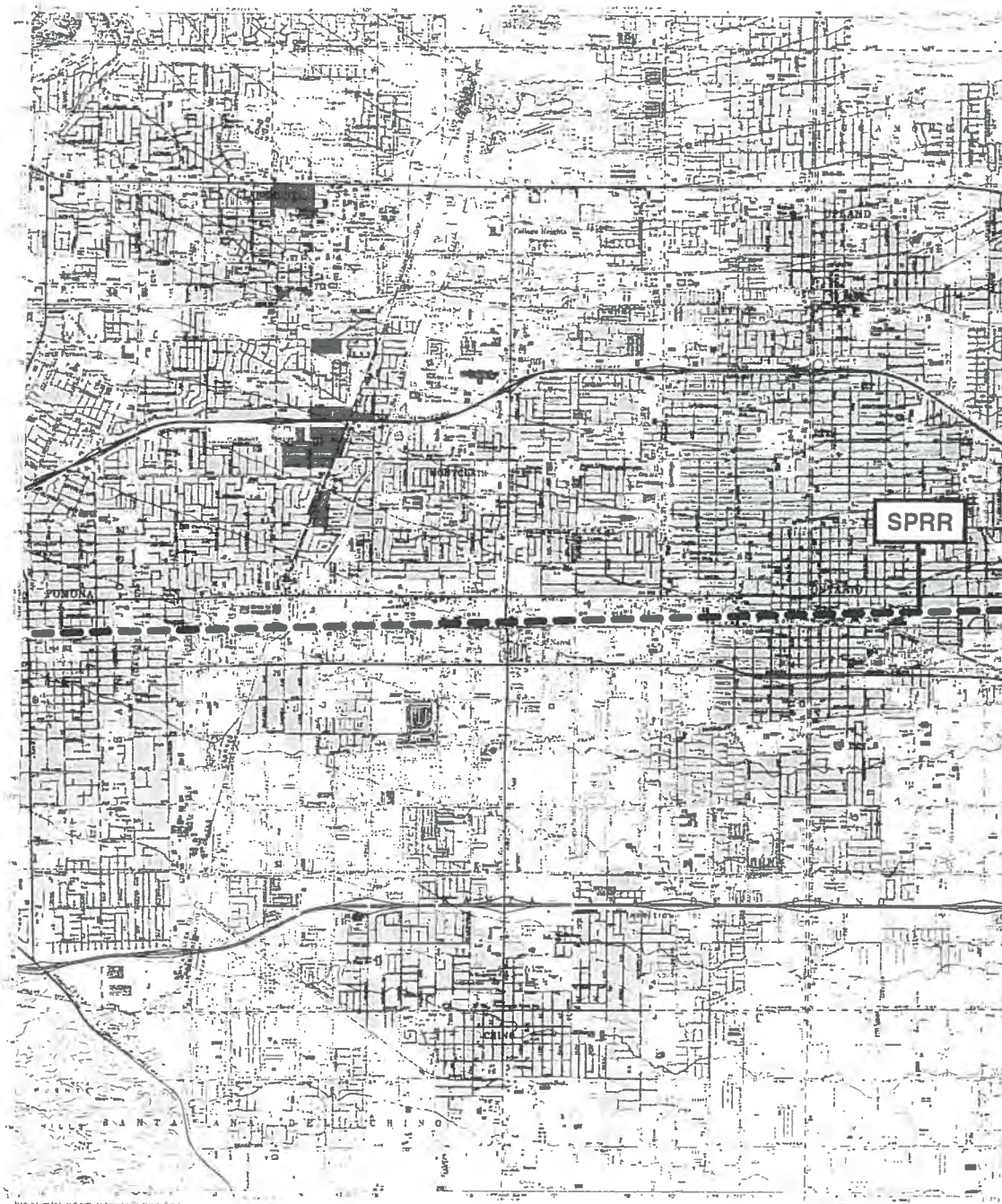
Page 9 of 12

\*Resource Name or #: C-Los Angeles - A-1; Southern Pacific Railroad

\*Map Name: Ontario, California

\*Scale: 1:80,000 (1"=6,666')

\*Date of Map: PR 1981



0 5,000  
feet

Scale = 1 80,000

Base map: USGS 7.5-series Ontario,  
California, quadrangle (1967, PR 1981)



# LOCATION MAP

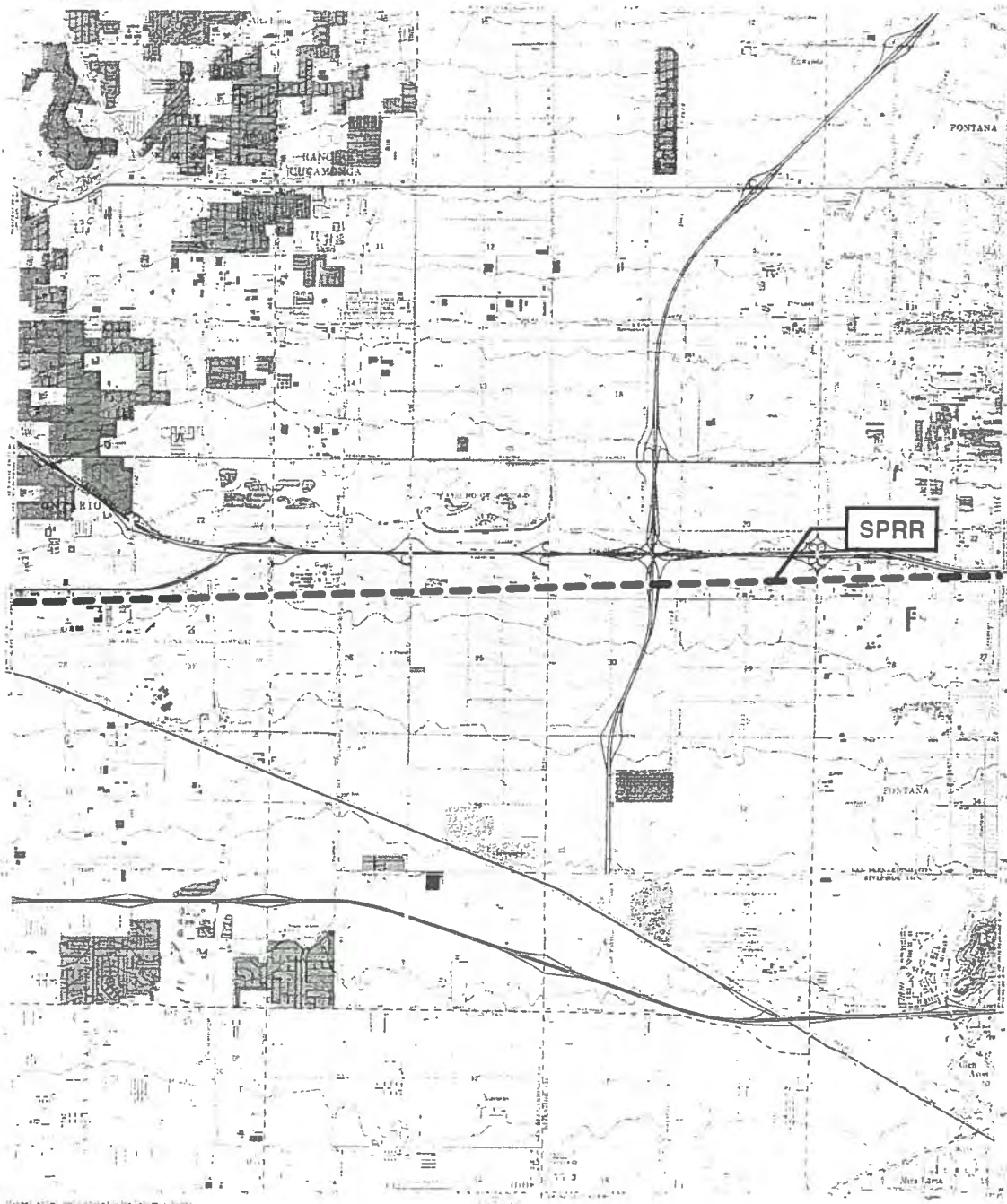
Page 10 of 12

\*Resource Name or #: C-Los Angeles - A-1; Southern Pacific Railroad

\*Map Name: Guasti, California

\*Scale: 1:80,000 (1"=6,666')

\*Date of Map: PR 1981



Scale = 1:80,000

Base map: USGS 7.5-series Guasti,  
California, quadrangle (1966, PR 1981)



# LOCATION MAP

Page 11 of 12

\*Resource Name or #: C-Los Angeles - A-1; Southern Pacific Railroad

\*Map Name: Fontana, California

\*Scale: 1:80,000 (1"=6,666')

\*Date of Map: PR 1980



Scale = 1:80,000

Base map: USGS 7.5-series Fontana,  
California, quadrangle (1967, PR 1980)





# LOCATION MAP

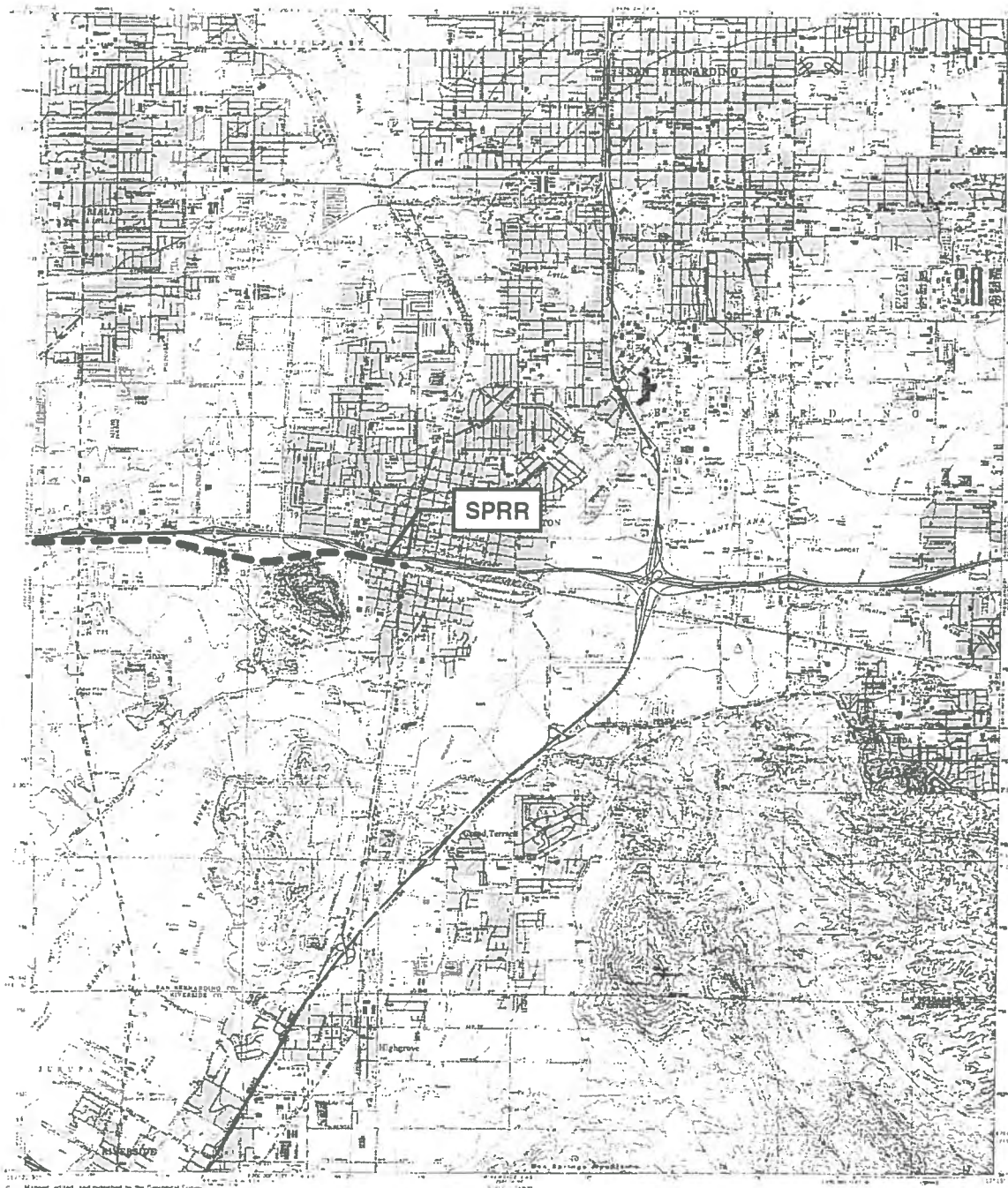
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\*Resource Name or #: C-Los Angeles - A-1; Southern Pacific Railroad

\*Map Name: San Bernardino South, California

\*Scale: 1:80,000 (1"=6,666')

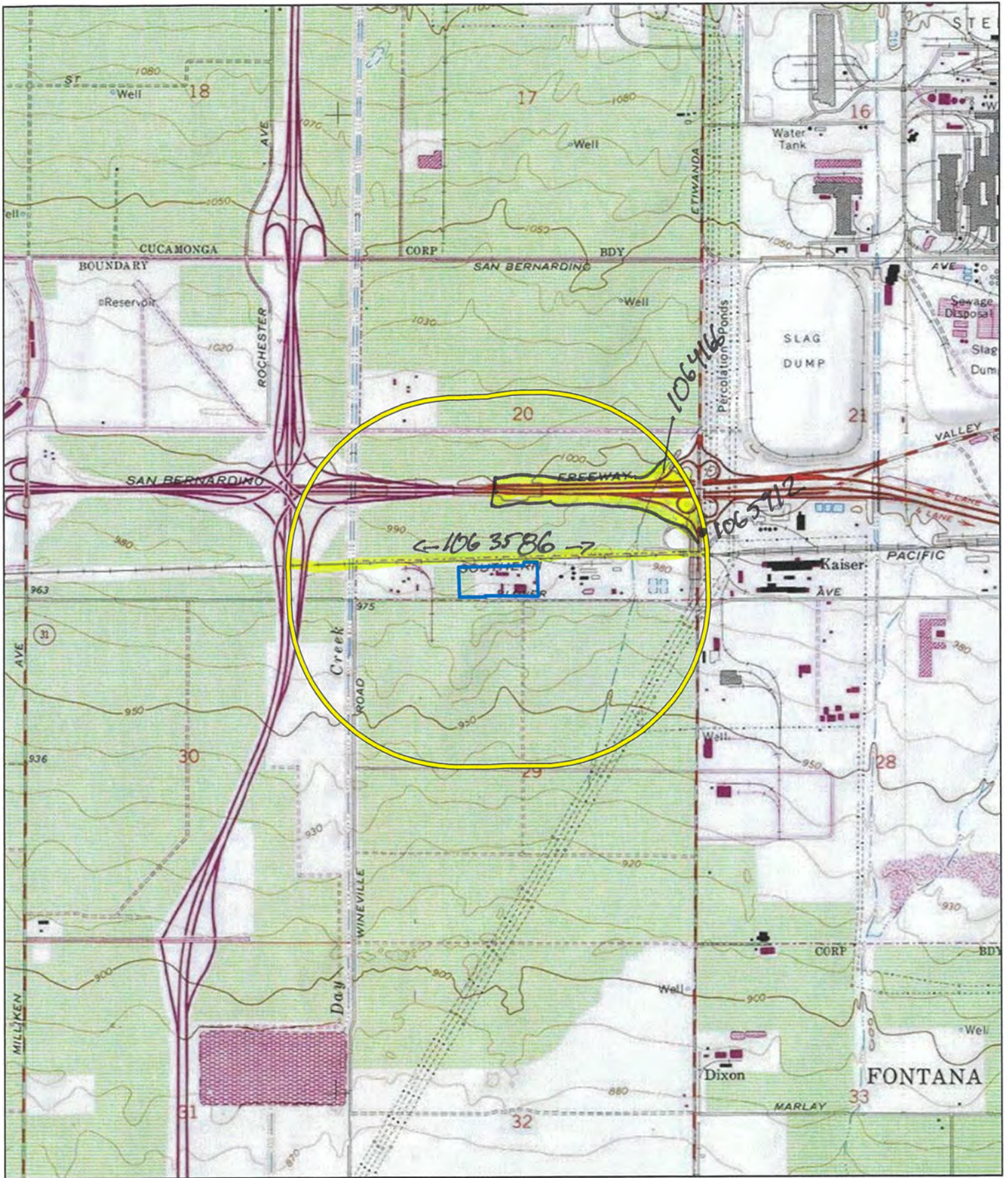
\*Date of Map: PR 1980



Scale = 1:80,000

Base map: USGS 7.5'-series San Bernardino, California, quadrangle (1967, PR 1980)





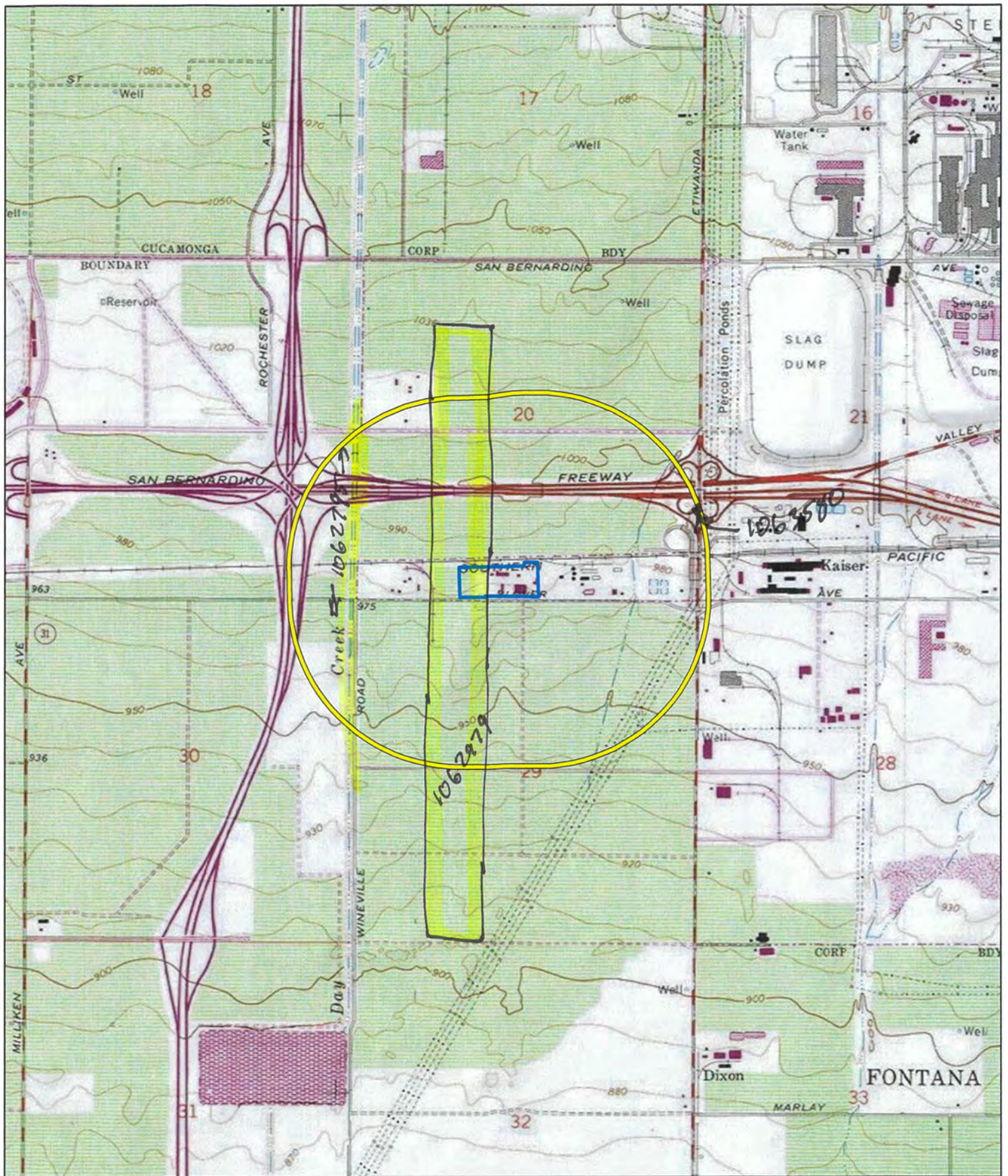
- Project
- Half Mile Radius

5355 Airport Drive (22-144)  
 USGS *Guasti* Quadrangle  
 (7.5-minute series)

Reports  
 lot 2

N

1:24,000  
 AJG BFSA: 4/18/2022  
 Item B - 955 of 3096



- Project
- Half Mile Radius

5355 Airport Drive (22-144)  
 USGS *Guasti* Quadrangle  
 (7.5-minute series)

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 2082

1:24,000  
 AJG BFA: 4/18/2022  
 Item B - 956 of 3096

## Report List

5355 Airport Dr 22-144

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
SB-02795	NADB-R - 1062795	1991	HAMPSON, R. PAUL, JAMES J. SCHMIDT, AND JUNE A. SCHMIDT	CULTURAL RESOURCE INVESTIGATION: CAJON PIPELINE PROJECT	GREENWOOD & ASSOCIATES	36-002910, 36-004252, 36-004253, 36-004255, 36-004268, 36-004271, 36-004272, 36-004411, 36-004418, 36-005361, 36-005362, 36-005568, 36-006793, 36-007076, 36-007077, 36-007078, 36-007079, 36-007080, 36-007081, 36-007082, 36-007084, 36-007085, 36-007086, 36-007087, 36-007088, 36-007089, 36-007090, 36-007091, 36-007092, 36-007093, 36-007094, 36-007095, 36-007096
SB-02979	NADB-R - 1062979	1993	TAYLOR, THOMAS T.	ARCHAEOLOGICAL RECONNAISSANCE SURVEY REPORT MIDDLE LUGO-MIRA LOMA 500KV T/L RIGHT-OF-WAY BETWEEN CONCOURS AND JURUPA AVE., ONTARIO, CA	Southern California Edison Company	36-008076
SB-03580	NADB-R - 1063580	2000	DUKE, CURT	CULTURAL RESOURCE ASSESSMENT FROM PBW FACILITY CM 359-07, COUNTY OF SAN BERNARDINO, CA. 5PP	LSA	
SB-03586	NADB-R - 1063586	2000	LOVE, BRUCE	ONTARIO TO COLTON PIPELINE, SAN BERNARDINO COUNTY, CA. 26PP	CRM TECH	36-006859
SB-04166	NADB-R - 1064166	1999	MCLEAN, DEBORAH	I-10 INTERCHANGE AT ETIWANDA AVE. 5PP	LSA	
SB-05912	NADB-R - 1065912	2008	Ahmet, Koral	Results of a Cultural Resources Assessment for the Southern California Edison Replacement of Deteriorated Pole No. 1504970E located on the Hygen-Linde 66kV Line near Fontana, San Bernardino County, California.	Southern California Edison	



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# **5355 East Airport Drive**

## **ENERGY ANALYSIS**

### **CITY OF ONTARIO**

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AUGUST 30, 2022

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14539-03 EA Report



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## LIST OF ABBREVIATED TERMS

%	Percent
(1)	Reference
AGSP	Airport Gateway Specific Plan
AQIA	<i>5355 East Airport Drive Air Quality Impact Analysis</i>
BACM	Best Available Control Measures
BTU	British Thermal Units
CaIEEMod	California Emissions Estimator Model
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCAP	Community Climate Action Plan
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
City	City of Ontario
CPEP	Clean Power and Electrification Pathway
CPUC	California Public Utilities Commission
DMV	Department of Motor Vehicles
EIA	Energy Information Administration
EPA	Environmental Protection Agency
EMFAC	EMissions FACtor
FERC	Federal Energy Regulatory Commission
GHG	Greenhouse Gas
GWh	Gigawatt Hour
HHD	Heavy-Heavy Duty Trucks
hp-hr-gal	Horsepower Hours Per Gallon
IEPR	Integrated Energy Policy Report
ISO	Independent Service Operator
ISTEA	Intermodal Surface Transportation Efficiency Act
ITE	Institute of Transportation Engineers
kBTU	Thousand-British Thermal Units
kWh	Kilowatt Hour
LDA	Light Duty Auto
LDT1/LDT2	Light-Duty Trucks
LHD1/LHD2	Light-Heavy Duty Trucks
MDV	Medium Duty Trucks
MHD	Medium-Heavy Duty Trucks

MMcfd	Million Cubic Feet Per Day
mpg	Miles Per Gallon
MPO	Metropolitan Planning Organization
PG&E	Pacific Gas and Electric
Project	5355 East Airport Drive
PV	Photovoltaic
SCAB	South Coast Air Basin
SCE	Southern California Edison
SDAB	San Diego Air Basin
SEIR	The Ontario Plan 2050 Draft Supplemental Environmental Impact Report
sf	Square Feet
SoCalGas	Southern California Gas
TEA-21	Transportation Equity Act for the 21 <sup>st</sup> Century
U.S.	United States
VMT	Vehicle Miles Traveled

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## EXECUTIVE SUMMARY

### ES.1 SUMMARY OF FINDINGS

The results of this *5355 East Airport Drive Energy Analysis* is summarized below based on the significance criteria in Section 6 of this report consistent with Appendix G of the California Environmental Quality Act (CEQA) Statute and Guidelines (*CEQA Guidelines*) (1). Table ES-1 shows the findings of significance for potential energy impacts under CEQA.

**TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS**

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
Energy Impact #1: Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	6.0	<i>Less Than Significant</i>	<i>n/a</i>
Energy Impact #2: Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	6.0	<i>Less Than Significant</i>	<i>n/a</i>

### ES.2 PROJECT REQUIREMENTS

The Project would be required to comply with regulations imposed by the federal and state agencies that regulate energy use and consumption through various means and programs. Those that are directly and indirectly applicable to the Project and that would assist in the reduction of energy usage include:

- Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)
- The Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21)
- Integrated Energy Policy Report (IEPR)
- State of California Energy Plan
- California Code Title 24, Part 6, Energy Efficiency Standards
- California Code Title 24, Part 11, California Green Building Standards Code (CALGreen)
- AB 1493 Pavley Regulations and Fuel Efficiency Standards
- California's Renewable Portfolio Standard (RPS)
- Clean Energy and Pollution Reduction Act of 2015 (SB 350)

Consistency with the above regulations is discussed in detail in section 6 of this report.

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# 1 INTRODUCTION

This report presents the results of the energy analysis prepared by Urban Crossroads, Inc., for the proposed 5355 East Airport Drive Project (Project). The purpose of this report is to ensure that energy implication is considered by the City of Ontario (Lead Agency), as the lead agency, and to quantify anticipated energy usage associated with construction and operation of the proposed Project, determine if the usage amounts are efficient, typical, or wasteful for the land use type, and to emphasize avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.

## 1.1 SITE LOCATION

The proposed Project is located at 5355 East Airport Drive in the City of Ontario as shown on Exhibit 1-A. The Project is located approximately 2.7 miles east of the Ontario International Airport (ONT).

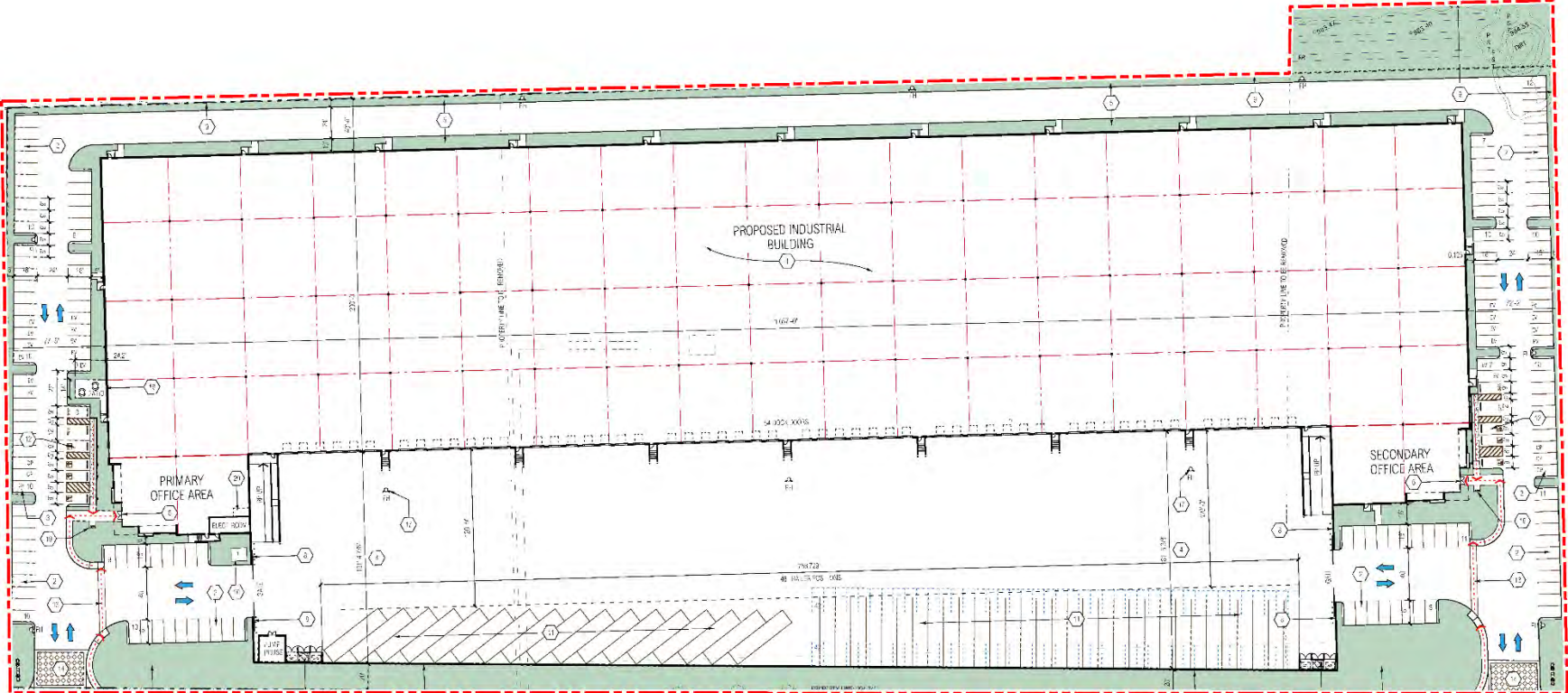
## 1.2 PROJECT DESCRIPTION

The Project is proposed to consist of a single 270,337-square-foot (sf) industrial building. This analysis assumes up to 27,034-sf high-cube cold storage use (10 percent [%] of the total industrial building sf) and 243,303-sf of warehouse use (90% of total industrial building). The site plan for the proposed Project is shown on Exhibit 1-B.

EXHIBIT 1-A: LOCATION MAP



EXHIBIT 1-B: SITE PLAN





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## 2 EXISTING CONDITIONS

This section provides an overview of the existing energy conditions in the Project region.

### 2.1 OVERVIEW

The most recent data for California's estimated total energy consumption and natural gas consumption is from 2020, released by the United States (U.S.) Energy Information Administration's (EIA) California State Profile and Energy Estimates in 2021 and included (2):

- As of 2020, approximately 6,923 trillion British Thermal Unit (BTU) of energy was consumed
- As of 2020, approximately 524 million barrels of petroleum
- As of 2020, approximately 2,075 billion cubic feet of natural gas
- As of 2020, approximately 1 million short tons of coal

The California Energy Commission's (CEC) Transportation Energy Demand Forecast released the 2018-2030 was released in order to support the 2017 Integrated Energy Policy Report. The Transportation energy Demand Forecast 2018-2030 lays out graphs and data supporting CEC's projections of California's future transportation energy demand. The projected inputs consider expected variable changes in fuel prices, income, population, and other variables. Predictions regarding fuel demand included:

- Gasoline demand in the transportation sector is expected to decline from approximately 15.8 billion gallons in 2017 to between 12.3 billion and 12.7 billion gallons in 2030 (3)
- Diesel demand in the transportation sector is expected to rise, increasing from approximately 3.7 billion diesel gallons in 2015 to approximately 4.7 billion in 2030 (3)
- Data from the Department of Energy states that approximately 3.9 billion gallons of diesel fuel were consumed in 2019 (4)

The most recent data provided by the EIA for energy use in California by demand sector is from 2020 and is reported as follows:

- Approximately 34.0% transportation
- Approximately 24.6% industrial
- Approximately 21.8% residential
- Approximately 19.6% commercial (5)

In 2021, total system electric generation for California was 277,764 gigawatt hours (GWh). California's massive electricity in-state generation system generated approximately 194,127 GWh which accounted for approximately 70% of the electricity it uses; the rest was imported from the Pacific Northwest (12%) and the U.S. Southwest (18%) (6). Natural gas is the main source for electricity generation at 50.19% of the total in-state electric generation system power as shown in Table 2-1.

TABLE 2-1: TOTAL ELECTRICITY SYSTEM POWER (CALIFORNIA 2021)

Fuel Type	California In-State Generation (GWh)	% of California In-State Generation	Northwest Imports (GWh)	Southwest Imports (GWh)	Total Imports (GWh)	% of Imports	Total California Energy Mix	Total California Power Mix
Coal	303	0.2%	181	7,788	7,969	9.5%	8,272	3.0%
Natural Gas	97,431	50.2%	45	7,880	7,925	9.5%	105,356	379.0%
Oil	37	0.0%	-	-	-	0.0%	37	0.0%
Other (Waste Heat/Petroleum Coke)	382	0.2%	68	15	83	0.1%	465	0.2%
Nuclear	16,477	8.5%	524	8,756	9,281	11.1%	25,758	9.3%
Large Hydro	12,036	6.2%	12,042	1,578	13,620	16.3%	25,656	9.2%
Unspecified	-	0.0%	8,156	10,731	18,887	22.6%	18,887	6.8%
Total Thermal and Non-Renewables	<b>126,666</b>	<b>65.2%</b>	<b>21,017</b>	<b>36,748</b>	<b>57,764</b>	<b>6910.0%</b>	<b>184,431</b>	<b>66.4%</b>
Biomass	5,381	2.8%	864	26	890	1.1%	6,271	2.3%
Geothermal	11,116	5.7%	192	1,906	2,098	2.5%	13,214	4.8%
Small Hydro	2,531	1.3%	304	1	304	0.4%	2,835	1.0%
Solar	33,260	17.1%	220	5,979	6,199	7.4%	39,458	14.2%
Wind	15,173	7.8%	9,976	6,405	16,381	19.6%	31,555	11.4%
Total Renewables	<b>67,461</b>	<b>34.8%</b>	<b>11,555</b>	<b>14,317</b>	<b>25,872</b>	<b>3090.0%</b>	<b>93,333</b>	<b>33.6%</b>
<b>SYSTEM TOTALS</b>	<b>194,127</b>	<b>100.0%</b>	<b>32,572</b>	<b>51,064</b>	<b>83,636</b>	<b>100.0%</b>	<b>277,764</b>	<b>100.0%</b>

Source: CECs 2021 Total System Electric Generation

An updated summary of, and context for energy consumption and energy demands within the State is presented in “U.S. Energy Information Administration, California State Profile and Energy Estimates, Quick Facts” excerpted below (7):

- In 2021, California was the seventh-largest producer of crude oil among the 50 states, and, as of January 2021, it ranked third in crude oil refining capacity.
- California is the largest consumer of jet fuel and second-largest consumer of motor gasoline among the 50 states and, the state accounted for 15% of the nation’s jet fuel consumption and 10% of motor gasoline consumption in 2020.
- In 2019, California was the second-largest total energy consumer among the states, but its per capita energy consumption was less than in all other states except Rhode Island, due in part to its mild climate and its energy efficiency programs.
- In 2021, California was the nation’s top producer of electricity from solar, geothermal, and biomass energy. The state was fourth in the nation in conventional hydroelectric power generation, down from second in 2019, in part because of drought and increased water demand.
- In 2021, California was the fourth-largest electricity producer in the nation, but the state was also the nation’s second-largest consumer of electricity, and in 2020, it received about 30% of its electricity supply from generating facilities outside of California, including imports from Mexico.

As indicated above, California is one of the nation’s leading energy-producing states, and California’s per capita energy use is among the nation’s most efficient. Given the nature of the Project, the remainder of this discussion will focus on the three sources of energy that are most relevant to the Project—namely, electricity, natural gas, and transportation fuel for vehicle trips associated with the uses planned for the Project.

## 2.2 ELECTRICITY

The usage associated with electricity use were calculated using CalEEMod Version 2022.1. The Southern California region’s electricity reliability has been of concern for the past several years due to the planned retirement of aging facilities that depend upon once-through cooling technologies, as well as the June 2013 retirement of the San Onofre Nuclear Generating Station (San Onofre). While the once-through cooling phase-out has been ongoing since the May 2010 adoption of the State Water Resources Control Board’s once-through cooling policy, the retirement of San Onofre complicated the situation. California Independent Service Operator (ISO) studies revealed the extent to which the South Coast Air Basin (SCAB) and the San Diego Air Basin (SDAB) region were vulnerable to low-voltage and post-transient voltage instability concerns. A preliminary plan to address these issues was detailed in the 2013 Integrative Energy Policy Report (IEPR) after a collaborative process with other energy agencies, utilities, and air districts (8). Similarly, the subsequent 2021 IEPR’s provides information and policy recommendations on advancing a clean, reliable, and affordable energy system.

California’s electricity industry is an organization of traditional utilities, private generating companies, and state agencies, each with a variety of roles and responsibilities to ensure that electrical power is provided to consumers. The California ISO is a nonprofit public benefit

corporation and is the impartial operator of the State's wholesale power grid and is charged with maintaining grid reliability, and to direct uninterrupted electrical energy supplies to California's homes and communities. While utilities still own transmission assets, the ISO routes electrical power along these assets, maximizing the use of the transmission system and its power generation resources. The ISO matches buyers and sellers of electricity to ensure that enough power is available to meet demand. To these ends, every five minutes the ISO forecasts electrical demands, accounts for operating reserves, and assigns the lowest cost power plant unit to meet demands while ensuring adequate system transmission capacities and capabilities (9).

Part of the ISO's charge is to plan and coordinate grid enhancements to ensure that electrical power is provided to California consumers. To this end, utilities file annual transmission expansion/modification plans to accommodate the State's growing electrical needs. The ISO reviews and either approves or denies the proposed additions. In addition, and perhaps most importantly, the ISO works with other areas in the western United States electrical grid to ensure that adequate power supplies are available to the State. In this manner, continuing reliable and affordable electrical power is assured to existing and new consumers throughout the State.

Electricity is currently provided to the Project site by Southern California Edison (SCE). SCE provides electric power to more than 15 million persons in 15 counties and in 180 incorporated cities, within a service area encompassing approximately 50,000 square miles. Based on SCE's 2018 Power Content Label Mix, SCE derives electricity from varied energy resources including: fossil fuels, hydroelectric generators, nuclear power plants, geothermal power plants, solar power generation, and wind farms. SCE also purchases from independent power producers and utilities, including out-of-state suppliers (10).

Table 2-2, SCE's specific proportional shares of electricity sources in 2020. As indicated in Table 2-2, the 2020 SCE Power Mix has renewable energy at 30.9% of the overall energy resources. Geothermal resources are at 5.5%, wind power is at 9.4%, large hydroelectric sources are at 3.3%, solar energy is at 15.1%, and coal is at 0% (11).

**TABLE 2-2: SCE 2020 POWER CONTENT MIX**

Energy Resources	2020 SCE Power Mix
<b>Eligible Renewable</b>	<b>30.9%</b>
Biomass & Waste	0.1%
Geothermal	5.5%
Eligible Hydroelectric	0.8%
Solar	15.1%
Wind	9.4%
<b>Coal</b>	<b>0.0%</b>
<b>Large Hydroelectric</b>	<b>3.3%</b>
<b>Natural Gas</b>	<b>15.2%</b>
<b>Nuclear</b>	<b>8.4%</b>
<b>Other</b>	<b>0.3%</b>
Unspecified Sources of power*	42.0%
<b>Total</b>	<b>100%</b>

\* "Unspecified sources of power" means electricity from transactions that are not traceable to specific generation sources

## 2.3 NATURAL GAS

The following summary of natural gas customers and volumes, supplies, delivery of supplies, storage, service options, and operations is excerpted from information provided by the California Public Utilities Commission (CPUC).

*"The CPUC regulates natural gas utility service for approximately 10.8 million customers that receive natural gas from Pacific Gas and Electric (PG&E), Southern California Gas (SoCalGas), San Diego Gas & Electric (SDG&E), Southwest Gas, and several smaller natural gas utilities. The CPUC also regulates independent storage operators: Lodi Gas Storage, Wild Goose Storage, Central Valley Storage and Gill Ranch Storage.*

*California's natural gas utilities provide service to over 11 million gas meters. SoCalGas and PG&E provide service to about 5.9 million and 4.3 million customers, respectively, while SDG&E provides service to over 800, 000 customers. In 2018, California gas utilities forecasted that they would deliver about 4740 million cubic feet per day (MMcfd) of gas to their customers, on average, under normal weather conditions.*

*The overwhelming majority of natural gas utility customers in California are residential and small commercial customers, referred to as "core" customers. Larger volume gas customers, like electric generators and industrial customers, are called "noncore" customers. Although very small in number relative to core customers, noncore customers consume about 65% of the natural gas delivered by the state's natural gas utilities, while core customers consume about 35%.*

*A significant amount of gas (about 19%, or 1131 MMcf, of the total forecasted California consumption in 2018) is also directly delivered to some California large volume consumers, without being transported over the regulated utility pipeline system. Those customers, referred to as "bypass" customers, take service directly from interstate pipelines or directly from California producers.*

*SDG&E and Southwest Gas' southern division are wholesale customers of SoCalGas, i.e., they receive deliveries of gas from SoCalGas and in turn deliver that gas to their own customers. (Southwest Gas also provides natural gas distribution service in the Lake Tahoe area.) Similarly, West Coast Gas, a small gas utility, is a wholesale customer of PG&E. Some other wholesale customers are municipalities like the cities of Palo Alto, Long Beach, and Vernon, which are not regulated by the CPUC.*

*Natural gas from out-of-state production basins is delivered into California via the interstate natural gas pipeline system. The major interstate pipelines that deliver out-of-state natural gas to California gas utilities are Gas Transmission Northwest Pipeline, Kern River Pipeline, Transwestern Pipeline, El Paso Pipeline, Ruby Pipeline, Mojave Pipeline, and Tuscarora. Another pipeline, the North Baja - Baja Norte Pipeline takes gas off the El Paso Pipeline at the California/Arizona border and delivers that gas through California into Mexico. While the Federal Energy Regulatory Commission (FERC) regulates the transportation of natural gas on the interstate pipelines, and authorizes rates for that service, the California Public Utilities Commission may participate in FERC regulatory proceedings to represent the interests of California natural gas consumers.*

*The gas transported to California gas utilities via the interstate pipelines, as well as some of the California-produced gas, is delivered into the PG&E and SoCalGas intrastate natural gas transmission pipeline systems (commonly referred to as California's "backbone" pipeline system). Natural gas on the utilities' backbone pipeline systems is then delivered to the local transmission and distribution pipeline systems, or to natural gas storage fields. Some large volume noncore customers take natural gas delivery directly off the high-pressure backbone and local transmission pipeline systems, while core customers and other noncore customers take delivery off the utilities' distribution pipeline systems. The state's natural gas utilities operate over 100,000 miles of transmission and distribution pipelines, and thousands more miles of service lines.*

*Bypass customers take most of their deliveries directly off the Kern/Mojave pipeline system, but they also take a significant amount of gas from California production.*

*PG&E and SoCalGas own and operate several natural gas storage fields that are located within their service territories in northern and southern California, respectively. These storage fields, and four independently owned storage utilities - Lodi Gas Storage, Wild Goose Storage, Central Valley Storage, and Gill Ranch Storage - help meet peak seasonal and daily natural gas demand and allow California natural gas customers to secure natural gas supplies more efficiently. PG&E is a 25% owner of the Gill Ranch Storage field. These storage fields provide a significant amount of infrastructure capacity to help meet*

*California's natural gas requirements, and without these storage fields, California would need much more pipeline capacity in order to meet peak gas requirements .*

*Prior to the late 1980s, California regulated utilities provided virtually all natural gas services to all their customers. Since then, the Commission has gradually restructured the California gas industry in order to give customers more options while assuring regulatory protections for those customers that wish to, or are required to, continue receiving utility-provided services.*

*The option to purchase natural gas from independent suppliers is one of the results of this restructuring process. Although the regulated utilities procure natural gas supplies for most core customers, core customers have the option to purchase natural gas from independent natural gas marketers, called "core transport agents" (CTA). Contact information for core transport agents can be found on the utilities' web sites. Noncore customers, on the other hand, make natural gas supply arrangements directly with producers or with marketers.*

*Another option resulting from the restructuring process occurred in 1993, when the Commission removed the utilities' storage service responsibility for noncore customers, along with the cost of this service from noncore customers' transportation rates. The Commission also encouraged the development of independent storage fields, and in subsequent years, all the independent storage fields in California were established. Noncore customers and marketers may now take storage service from the utility or from an independent storage provider (if available), and pay for that service, or may opt to take no storage service at all. For core customers, the Commission assures that the utility has adequate storage capacity set aside to meet core requirements, and core customers pay for that service.*

*In a 1997 decision, the Commission adopted PG&E's "Gas Accord", which unbundled PG&E's backbone transmission costs from noncore transportation rates. This decision gave customers and marketers the opportunity to obtain pipeline capacity rights on PG&E's backbone transmission pipeline system, if desired, and pay for that service at rates authorized by the Commission. The Gas Accord also required PG&E to set aside a certain amount of backbone transmission capacity in order to deliver gas to its core customers. Subsequent Commission decisions modified and extended the initial terms of the Gas Accord. The "Gas Accord" framework is still in place today for PG&E's backbone and storage rates and services and is now simply referred to as PG&E Gas Transmission and Storage (GT&S).*

*In a 2006 decision, the Commission adopted a similar gas transmission framework for Southern California, called the "firm access rights" system. SoCalGas and SDG&E implemented the firm access rights (FAR) system in 2008, and it is now referred to as the backbone transmission system (BTS) framework. As under the PG&E backbone transmission system, SoCalGas backbone transmission costs are unbundled from noncore transportation rates. Noncore customers and marketers may obtain, and pay for, firm backbone transmission capacity at various receipt points on the SoCalGas system. A*



*certain amount of backbone transmission capacity is obtained for core customers to assure meeting their requirements.*

*Many if not most noncore customers now use a marketer to provide for several of the services formerly provided by the utility. That is, a noncore customer may simply arrange for a marketer to procure its supplies, and obtain any needed storage and backbone transmission capacity, in order to assure that it will receive its needed deliveries of natural gas supplies. Core customers still mainly rely on the utilities for procurement service, but they have the option to take procurement service from a CTA. Backbone transmission and storage capacity is either set aside or obtained for core customers in amounts to assure very high levels of service.*

*In order properly operate their natural gas transmission pipeline and storage systems, PG&E and SoCalGas must balance the amount of gas received into the pipeline system and delivered to customers or to storage fields. Some of these utilities' storage capacity is dedicated to this service, and under most circumstances, customers do not need to precisely match their deliveries with their consumption. However, when too much or too little gas is expected to be delivered into the utilities' systems, relative to the amount being consumed, the utilities require customers to more precisely match up their deliveries with their consumption. And, if customers do not meet certain delivery requirements, they could face financial penalties. The utilities do not profit from these financial penalties - the amounts are then returned to customers as a whole. If the utilities find that they are unable to deliver all the gas that is expected to be consumed, they may even call for a curtailment of some gas deliveries. These curtailments are typically required for just the largest, noncore customers. It has been many years since there has been a significant curtailment of core customers in California." (12)*

As indicated in the preceding discussions, natural gas is available from a variety of in-state and out-of-state sources and is provided throughout the state in response to market supply and demand. Complementing available natural gas resources, biogas may soon be available via existing delivery systems, thereby increasing the availability and reliability of resources in total. The CPUC oversees utility purchases and transmission of natural gas to ensure reliable and affordable natural gas deliveries to existing and new consumers throughout the State.

## **2.4 TRANSPORTATION ENERGY RESOURCES**

The Project would generate additional vehicle trips with resulting consumption of energy resources, predominantly gasoline and diesel fuel. The Department of Motor Vehicles (DMV) identified 36.2 million registered vehicles in California (13), and those vehicles consume an estimated 17.2 billion gallons of fuel each year<sup>1</sup>. Gasoline (and other vehicle fuels) are commercially provided commodities and would be available to the Project patrons and employees via commercial outlets.

<sup>1</sup> Fuel consumptions estimated utilizing information from EMFAC2021.

California's on-road transportation system includes 396,616 lane miles, more than 26.6 million passenger vehicles and light trucks, and almost 9.0 million medium- and heavy-duty vehicles (13). While gasoline consumption has been declining since 2008 it is still by far the dominant fuel. California is the second-largest consumer of petroleum products, after Texas, and accounts for 10% of the nation's total consumption. The state is the largest U.S. consumer of motor gasoline and jet fuel, and 85% of the petroleum consumed in California is used in the transportation sector (14).

California accounts for less than 1% of total U.S. natural gas reserves and production. As with crude oil, California's natural gas production has experienced a gradual decline since 1985. In 2019, about 37% of the natural gas delivered to consumers went to the state's industrial sector, and about 28% was delivered to the electric power sector. Natural gas fueled more than two-fifths of the state's utility-scale electricity generation in 2019. The residential sector, where two-thirds of California households use natural gas for home heating, accounted for 22% of natural gas deliveries. The commercial sector received 12% of the deliveries to end users and the transportation sector consumed the remaining 1% (14).

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### 3 REGULATORY BACKGROUND

Federal and state agencies regulate energy use and consumption through various means and programs. On the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency (EPA) are three federal agencies with substantial influence over energy policies and programs. On the state level, the CPUC and the CEC are two agencies with authority over different aspects of energy. Relevant federal and state energy-related laws and plans are summarized below.

#### 3.1 FEDERAL REGULATIONS

##### 3.1.1 INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT OF 1991 (ISTEA)

ISTEA promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions.

##### 3.1.2 THE TRANSPORTATION EQUITY ACT FOR THE 21<sup>ST</sup> CENTURY (TEA-21)

TEA-21 was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation, discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety.

#### 3.2 CALIFORNIA REGULATIONS

##### 3.2.1 INTEGRATED ENERGY POLICY REPORT (IEPR)

Senate Bill 1389 (Bowen, Chapter 568, Statutes of 2002) requires the CEC to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety (Public Resources Code § 25301[a]). The CEC prepares these assessments and associated policy recommendations every two years, with updates in alternate years, as part of the Integrated Energy Policy Report.

The 2021 IEPR was adopted February 2022, and continues to work towards improving electricity, natural gas, and transportation fuel energy use in California. The 2021 IEPR provides the results

of the CEC’s assessments of a variety of energy issues facing California. Many of these issues will require action if the state is to meet its climate, energy, air quality, and other environmental goals while maintaining reliability and controlling costs. Additionally, the 2021 IEPR provides the results of the CEC’s assessments of a variety of energy issues facing California. Many of these issues will require action if the state is to meet its climate, energy, air quality, and other environmental goals while maintaining reliability and controlling costs (15).

### **3.2.2 STATE OF CALIFORNIA ENERGY PLAN**

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The Plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies several strategies, including assistance to public agencies and fleet operators and encouragement of urban designs that reduce vehicle miles traveled (VMT) and accommodate pedestrian and bicycle access.

### **3.2.3 CALIFORNIA CODE TITLE 24, PART 6, ENERGY EFFICIENCY STANDARDS**

California Code of Regulations (CCR) Title 24 Part 6: The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California’s energy consumption.

The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on August 1, 2009, and is administered by the California Building Standards Commission.

CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that will be effective on January 1, 2023<sup>2</sup>. The Project would be required to comply with the applicable standards in place at the time plan check submittals are made (16).

### **3.2.4 AB 1493 PAVLEY REGULATIONS AND FUEL EFFICIENCY STANDARDS**

California AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Under this legislation, CARB adopted regulations to reduce GHG emissions from non-commercial passenger vehicles (cars and light-duty trucks). Although aimed at reducing GHG emissions, specifically, a co-benefit of the Pavley standards is an improvement in fuel efficiency and consequently a reduction in fuel consumption.

<sup>2</sup> The 2022 California Green Building Standard Code will be published July 1, 2022.

### 3.2.5 CALIFORNIA'S RENEWABLE PORTFOLIO STANDARD (RPS)

First established in 2002 under Senate Bill (SB) 1078, California's Renewable Portfolio Standards (RPS) requires retail sellers of electric services to increase procurement from eligible renewable resources to 33% of total retail sales by 2020 (17).

### 3.2.6 CLEAN ENERGY AND POLLUTION REDUCTION ACT OF 2015 (SB 350)

In October 2015, the legislature approved, and the Governor signed SB 350, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the renewables portfolio standard (RPS), higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for electric vehicle charging stations. Specifically, SB 350 requires the following to reduce statewide GHG emissions:

- Increase the amount of electricity procured from renewable energy sources from 33% to 50% by 2030, with interim targets of 40% by 2024, and 25% by 2027.
- Double the energy efficiency in existing buildings by 2030. This target will be achieved through the California Public Utility Commission (CPUC), the CEC, and local publicly owned utilities.
- Reorganize the Independent System Operator (ISO) to develop more regional electrify transmission markets and to improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States (California Leginfo 2015).

### 3.2.7 CITY OF ONTARIO COMMUNITY CLIMATE ACTION PLAN (CCAP)

The CCAP contains further guidance on the City of Ontario's GHG Inventory reduction goals, policies, guidelines, and implementation programs. The purpose of the CCAP is to provide guidance on how to analyze GHG emissions and determine significance during the CEQA review of proposed development projects within the City of Ontario (18). The CCAP builds upon the Reduction Plan to address City-specific information and City-specific GHG reduction measures. To address the state's requirement to reduce GHG emissions, the CCAP was prepared with the goal of reducing GHG emissions within the City by 15% below 2008 levels by the year 2020. The City's target is consistent with the AB 32 target and ensures that the City of Ontario achieves GHG reductions locally that complement and are consistent with state efforts to reduce GHG emissions.

As part of the CCAP, the City of Ontario published a guidance document titled "Greenhouse Gas Emissions, CEQA Thresholds and Screening Tables" (December 2014). As part of this guidance, the CCAP determined that if GHG emissions of a given project exceeds 3,000 MTCO<sub>2</sub>e/yr, then project emissions would need to be reduced by 25% when compared to year 2008 emissions levels. Alternatively, the project would need to achieve a minimum of 100 points pursuant to measures identified in the Screening Tables.

The update to the Ontario Plan includes an update to the City's Community Climate Action Plan (CCAP) which was originally adopted on December 16, 2014. As stated in The Ontario Plan 2050 Draft Supplemental Environmental Impact Report (SEIR), the measures included in the 2022

update to the CCAP are not substantially different than that of the 2014 CCAP and therefore there is no change in the environmental impacts associated with the CCAP (19).

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## 4 EXISTING PROJECT SITE ENERGY DEMANDS

### 4.1 EXISTING OPERATIONAL ENERGY DEMANDS

#### 4.1.1 EXISTING TRANSPORTATION ENERGY DEMANDS

The Project site is currently occupied and operating as a grain processing company and a corn storage and distribution facility. The estimated transportation energy demands from the existing development are summarized on Table 5-1.

**TABLE 5-1: TOTAL PROJECT-GENERATED TRAFFIC ANNUAL FUEL CONSUMPTION (ALL VEHICLES)**

Vehicle Type	Annual VMT	Estimated Annual Fuel Consumption (gallons)
<i>EXISTING (ALL VEHICLES)</i>	<i>1,426,059</i>	<i>134,254</i>

#### 4.1.2 EXISTING FACILITY ENERGY DEMANDS

The estimated facility energy demands from the existing development are summarized on Table 5-2 and based on historic utility bills for the existing facility.

**TABLE 5-2: EXISTING ANNUAL OPERATIONAL ENERGY DEMAND SUMMARY**

Land Use	Natural Gas Demand (kBTU/year)	Electricity Demand (kWh/year)
<i>TOTAL EXISTING ENERGY DEMAND</i>	<i>794,266</i>	<i>1,027,373</i>

kBTU – kilo-British Thermal Units

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## 5 PROJECT ENERGY DEMANDS AND ENERGY EFFICIENCY MEASURES

### 5.1 EVALUATION CRITERIA

Appendix F of the *State CEQA Guidelines* (20), states that the means of achieving the goal of energy conservation includes the following:

- Decreasing overall per capita energy consumption;
- Decreasing reliance on fossil fuels such as coal, natural gas, and oil; and
- Increasing reliance on renewable energy sources.

In compliance with Appendix G of the *State CEQA Guidelines* (21), this report analyzes the Project's anticipated energy use during construction and operations to determine if the Project would:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency

### 5.2 METHODOLOGY

Information from the CalEEMod Version 2022.1 outputs for the *5355 East Airport Drive Air Quality Impact Analysis* (AQIA) (22) was utilized in this analysis, detailing Project related construction equipment, transportation energy demands, and facility energy demands.

#### 5.2.1 CAL EEMOD

In May 2022, the SCAQMD, in conjunction with the California Air Pollution Control Officers Association (CAPCOA) and other California air districts, released the latest version of the CalEEMod Version 2022.1. The purpose of this model is to calculate construction-source and operational-source criteria pollutants and GHG emissions from direct and indirect sources as well as energy usage (23). Accordingly, the latest version of CalEEMod has been used to determine the proposed Project's anticipated transportation and facility energy demands. Outputs from the annual model runs are provided in Appendices 5.1 through 5.2.

#### 5.2.2 EMISSION FACTORS MODEL

On May 2, 2022, the EPA approved the 2021 version of the EMISSIONS FACTOR model (EMFAC2021) web database for use in State Implementation Plan and transportation conformity analyses. EMFAC2021 is a mathematical model that was developed to calculate emission rates, fuel consumption, VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources (24). This energy study utilizes the different fuel types for each vehicle class from the annual EMFAC2021 emission inventory in order to derive the average vehicle fuel economy which is then used to determine the estimated annual fuel consumption associated with vehicle usage during Project construction and operational activities. For purposes of

analysis, the 2023 and 2024 analysis years were utilized to determine the average vehicle fuel economy used throughout the duration of the Project. Outputs from the EMFAC2021 model run is provided in Appendix 5.3.

### 5.3 CONSTRUCTION ENERGY DEMANDS

The focus within this section is the energy implications of the construction process, specifically the power cost from on-site electricity consumption during construction of the proposed Project.

#### 5.3.1 CONSTRUCTION POWER COST

The total Project construction power costs is the summation of the products of the area (sf) by the construction duration and the typical power cost.

#### CONSTRUCTION DURATION

For purposes of analysis, construction of Project is expected to commence in May 2023 and would last through April 2024 (22). The construction schedule utilized in the analysis, shown in Table 5-1, represents a “worst-case” analysis scenario. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per *CEQA Guidelines* (25).

**TABLE 5-1: CONSTRUCTION DURATION**

Construction Activity	Start Date	End Date	Days
Demolition/Crushing	05/02/2023	07/24/2023	60
Site Preparation	07/25/2023	09/04/2023	30
Grading	07/25/2023	09/04/2023	30
Building Construction	09/05/2023	04/15/2024	160
Paving	02/13/2024	04/15/2024	45
Architectural Coating/Landscaping	03/05/2024	04/15/2024	30

#### PROJECT CONSTRUCTION POWER COST

The *2022 National Construction Estimator* identifies a typical power cost per 1,000 sf of construction per month of \$2.41, which was used to calculate the Project’s total construction power cost (26).

As shown on Table 5-2, the total power cost of the on-site electricity usage during the construction of the Project is estimated to be approximately \$15,109.48.

**TABLE 5-2: CONSTRUCTION POWER COST**

Land Use	Power Cost (per 1,000 SF of construction per month)	Size (1,000 SF)	Construction Duration (months)	Project Construction Power Cost
Warehousing	\$2.41	243.303	11	\$6,449.97
High-Cube Cold Storage	\$2.41	27.034	11	\$716.66
Landscape	\$2.41	72.527	11	\$1,922.69
Parking	\$2.41	66.582	11	\$1,765.09
Other Asphalt Surfaces	\$2.41	160.508	11	\$4,255.07
<b>CONSTRUCTION POWER COST</b>				<b>\$15,109.48</b>

### 5.3.2 CONSTRUCTION ELECTRICITY USAGE

The total Project construction electricity usage is the summation of the products of the power cost (estimated in Table 5-2) by the utility provider cost per kilowatt hour (kWh) of electricity.

#### PROJECT CONSTRUCTION ELECTRICITY USAGE

The SCE's general service rate schedule were used to determine the Project's electrical usage. As of June 1, 2022, SCE's general service rate is \$0.13 per kilowatt hours (kWh) of electricity for industrial services (27). As shown on Table 5-3, the total electricity usage from on-site Project construction related activities is estimated to be approximately 113,853 kWh.

**TABLE 5-3: CONSTRUCTION ELECTRICITY USAGE**

Land Use	Cost per kWh	Project Construction Electricity Usage (kWh)
Warehousing	\$0.13	48,602
High-Cube Cold Storage	\$0.13	5,400
Landscape	\$0.13	14,488
Parking	\$0.13	13,300
Other Asphalt Surfaces	\$0.13	32,063
<b>CONSTRUCTION ELECTRICITY USAGE</b>		<b>113,853</b>

### 5.3.3 CONSTRUCTION EQUIPMENT FUEL ESTIMATES

Fuel consumed by construction equipment would be the primary energy resource expended over the course of Project construction.

#### CONSTRUCTION EQUIPMENT

Consistent with industry standards and typical construction practices, each piece of equipment listed in Table 5-4 will operate up to a total of eight (8) hours per day, or more than two-thirds of the period during which construction activities are allowed.

**TABLE 5-4: CONSTRUCTION EQUIPMENT ASSUMPTIONS**

Construction Activity	Equipment	Amount	Hours Per Day
Demolition/Crushing	Rubber Tired Dozers	2	8
	Excavators	3	8
	Concrete/Industrial Saws	1	8
	Crushing/Proc. Equipment <sup>1</sup>	1	8
Site Preparation	Rubber Tired Dozers	3	8
	Crawler Tractors	4	8
Grading	Graders	1	8
	Excavators	2	8
	Scrapers	2	8
	Rubber Tired Dozers	1	8
	Crawler Tractors	2	8
Building Construction	Forklifts	5	8
	Generator Sets	2	8
	Cranes	2	8
	Welders	2	8
	Crawler Tractors	5	8
Pavers	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	1	8

<sup>1</sup> The Project will use an electric-powered crusher which will be powered by a diesel generator. As a conservative measure, this analysis models a single diesel-powered generator set.

### PROJECT CONSTRUCTION EQUIPMENT FUEL CONSUMPTION

Project construction activity timeline estimates, construction equipment schedules, equipment power ratings, load factors, and associated fuel consumption estimates are presented in Table 5-5. The aggregate fuel consumption rate for all equipment is estimated at 18.5 horsepower hour per gallon (hp-hr-gal.), obtained from CARB 2018 Emissions Factors Tables and cited fuel consumption rate factors presented in Table D-24 of the Moyer guidelines (28). For the purposes of this analysis, the calculations are based on all construction equipment being diesel-powered, which is consistent with industry standards.

**TABLE 5-5: CONSTRUCTION EQUIPMENT FUEL CONSUMPTION ESTIMATES**

Construction Activity	Duration (Days)	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption
Demolition	60	Crushing/Proc. Equipment	14	1	8	0.74	83	269
		Rubber Tired Dozers	367	2	8	0.40	2,349	7,618
		Excavators	36	3	8	0.38	328	1,065
		Concrete/Industrial Saws	33	1	8	0.73	193	625
Site Preparation	30	Crawler Tractors	87	4	8	0.43	1,197	1,941
		Rubber Tired Dozers	367	3	8	0.40	3,523	5,713
Grading	30	Crawler Tractors	87	2	8	0.43	599	971
		Graders	148	1	8	0.41	485	787
		Excavators	36	2	8	0.38	219	355
		Scrapers	423	2	8	0.48	3,249	5,268
		Rubber Tired Dozers	367	1	8	0.40	1,174	1,904
Building Construction	160	Crawler Tractors	87	5	8	0.43	1,496	12,942
		Forklifts	82	5	8	0.20	656	5,674
		Generator Sets	14	2	8	0.74	166	1,434
		Cranes	367	2	8	0.29	1,703	14,728
		Welders	46	2	8	0.45	331	2,864
Paving	45	Pavers	81	2	8	0.42	544	1,324
		Paving Equipment	89	2	8	0.36	513	1,247
		Rollers	36	2	8	0.38	219	532
Architectural Coating	30	Air Compressors	37	1	8	0.48	142	230
<b>CONSTRUCTION FUEL DEMAND (GALLONS DIESEL FUEL)</b>								<b>67,491</b>

Diesel fuel would be supplied by existing commercial fuel providers serving the Project area and region<sup>3</sup>. As previously presented in Table 4-5, Project construction activities would consume an estimated 67,491 gallons of diesel fuel. Project construction would represent a “single-event” diesel fuel demand and would not require ongoing or permanent commitment of diesel fuel resources for this purpose.

### 5.3.4 CONSTRUCTION TRIPS AND VMT

Construction generates on-road vehicle emissions from vehicle usage for workers, vendors, and haul truck commuting to and from the site. The number of workers and vendor trips are presented below in Table 5-6. It should be noted that for vendor trips, specifically, CalEEMod only assigns vendor trips to the Building Construction phase. Vendor trips would likely occur during all phases of construction. As such, the CalEEMod defaults for vendor trips have been adjusted based on a ratio of the total vendor trips to the number of days of each subphase of activity.

**TABLE 5-6: CONSTRUCTION TRIPS AND VMT**

Construction Activity	Worker Trips Per Day	Vendor Trips Per Day	Hauling Trips Per Day
Demolition/Crushing	18	10	3
Site Preparation	18	5	0
Grading	20	5	38
Building Construction	114	25	0
Paving	15	0	0
Architectural Coating/Landscaping	23	0	0

### 5.3.5 CONSTRUCTION WORKER FUEL ESTIMATES

With respect to estimated VMT for the Project, the construction worker trips (personal vehicles used by workers commuting to the Project from home) would generate an estimated 409,775 VMT during the 11 months of construction (22). Based on CalEEMod methodology, it is assumed that 50% of all construction worker trips are from light-duty-auto vehicles (LDA), 25% are from light-duty-trucks (LDT1<sup>4</sup>), and 25% are from light-duty-trucks (LDT2<sup>5</sup>). Data regarding Project related construction worker trips were based on CalEEMod defaults utilized within the AQIA.

Vehicle fuel efficiencies for LDA, LDT1, and LDT2 were estimated using information generated within the 2021 version of the EMFAC developed by CARB. EMFAC2021 is a mathematical model that was developed to calculate emission rates, fuel consumption, and VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources (24). EMFAC2021 was

<sup>3</sup> Based on Appendix A of the CalEEMod User’s Guide, Construction consists of several types of off-road equipment. Since the majority of the off-road construction equipment used for construction projects are diesel fueled, CalEEMod assumes all of the equipment operates on diesel fuel.

<sup>4</sup> Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.

<sup>5</sup> Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.



run for the LDA, LDT1, and LDT2 vehicle class within the California sub-area for the 2023 and 2024 calendar years. Data from EMFAC2021 is shown in Appendix 5.3.

**TABLE 5-7: CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES**

Year	Construction Activity	Duration (Days)	Worker Trips/Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2023	LDA						
	Demolition/Crushing	60	9	18.5	9,990	30.68	326
	Site Preparation	30	9	18.5	4,995	30.68	163
	Grading	30	10	18.5	5,550	30.68	181
	Building Construction	84	57	18.5	88,578	30.68	2,887
	LDT1						
	Demolition/Crushing	60	5	18.5	5,550	24.14	230
	Site Preparation	30	5	18.5	2,775	24.14	115
	Grading	30	5	18.5	2,775	24.14	115
	Building Construction	84	29	18.5	45,066	24.14	1,867
	LDT2						
	Demolition/Crushing	60	5	18.5	5,550	23.82	233
	Site Preparation	30	5	18.5	2,775	23.82	117
	Grading	30	5	18.5	2,775	23.82	117
	Building Construction	84	29	18.5	45,066	23.82	1,892
2024	LDA						
	Building Construction	76	57	18.5	80,142	31.57	2,538
	Paving	45	8	18.5	6,660	31.57	211
	Architectural Coating	30	12	18.5	6,660	31.57	211
	LDT1						
	Building Construction	76	29	18.5	40,774	24.59	1,658
	Paving	45	4	18.5	3,330	24.59	135
	Architectural Coating	30	6	18.5	3,330	24.59	135
	LDT2						
	Building Construction	76	29	18.5	40,774	24.51	1,664
	Paving	45	4	18.5	3,330	24.51	136
	Architectural Coating	30	6	18.5	3,330	24.51	136
<b>TOTAL CONSTRUCTION WORKER FUEL CONSUMPTION</b>							<b>15,066</b>

As previously shown in Table 4-7, the estimated annual fuel consumption resulting from Project construction worker trips is 15,066 gallons during full construction of the Project. It should be noted that construction worker trips would represent a “single-event” gasoline fuel demand and would not require ongoing or permanent commitment of fuel resources for this purpose.

### 5.3.6 CONSTRUCTION VENDOR/HAULING FUEL ESTIMATES

With respect to estimated VMT, the construction vendor trips (vehicles that deliver materials to the site during construction) would generate an estimated 78,624 VMT along area roadways for the Project over the duration of construction activity (22). It is assumed that 50% of all vendor trips are from medium-heavy duty trucks (MHD), 50% of all vendor trips are from heavy-heavy duty trucks (HHD), and 100% of all hauling trips are HHDs. These assumptions are consistent with the CalEEMod defaults utilized within the within the AQIA (22). Vehicle fuel efficiencies for MHDs and HHDs were estimated using information generated within EMFAC2021. EMFAC2021 was run for the MHD and HHD vehicle classes within the California sub-area for the 2023 and 2024 calendar years. Data from EMFAC2021 is shown in Appendix 5.3.

**TABLE 5-8: CONSTRUCTION VENDOR FUEL CONSUMPTION ESTIMATES**

Year	Construction Activity	Duration (Days)	Vendor/Hauling Trips/Day	Trip Length (miles)	VMT	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2023	MHD						
	Demolition/Crushing	60	5	10.2	3,060	8.27	370
	Site Preparation	30	3	10.2	918	8.27	111
	Grading	30	3	10.2	918	8.27	111
	Building Construction	84	13	10.2	11,138	8.27	1,347
	HHD (Vendor)						
	Demolition/Crushing	60	5	10.2	3,060	5.94	515
	Site Preparation	30	3	10.2	918	5.94	155
	Grading	30	3	10.2	918	5.94	155
	Building Construction	84	13	10.2	11,138	5.94	1,875
	HHD (Hauling)						
	Demolition/Crushing	60	3	20	3,600	5.94	606
	Grading	30	38	20	22,800	5.94	3,838
2023	MHD						
	Building Construction	76	13	10.2	10,078	8.32	1,212
	HHD (Vendor)						
Building Construction	76	13	10.2	10,078	6.03	1,673	
<b>TOTAL CONSTRUCTION VENDOR/HAULING FUEL CONSUMPTION</b>							<b>11,965</b>

Based on Table 5-8, it is estimated that 11,965 gallons of fuel will be consumed related to construction vendor trips during full construction of the Project. It should be noted that Project construction vendor trips would represent a “single-event” diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

### **5.3.7 CONSTRUCTION ENERGY EFFICIENCY/CONSERVATION MEASURES**

Starting in 2014, CARB adopted the nation's first regulation aimed at cleaning up off-road construction equipment such as bulldozers, graders, and backhoes. These requirements ensure fleets gradually turnover the oldest and dirtiest equipment to newer, cleaner models and prevent fleets from adding older, dirtier equipment. As such, the equipment used for Project construction would conform to CARB regulations and California emissions standards. It should also be noted that there are no unusual Project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities; or equipment that would not conform to current emissions standards (and related fuel efficiencies). Equipment employed in construction of the Project would therefore not result in inefficient wasteful, or unnecessary consumption of fuel.

Construction contractors would be required to comply with applicable CARB regulation regarding retrofitting, repowering, or replacement of diesel off-road construction equipment. Additionally, CARB has adopted the Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other Toxic Air Contaminants. Compliance with anti-idling and emissions regulations would result in a more efficient use of construction-related energy and the minimization or elimination of wasteful or unnecessary consumption of energy. Idling restrictions and the use of newer engines and equipment would result in less fuel combustion and energy consumption.

Additional construction-source energy efficiencies would occur due to required California regulations and best available control measures (BACM). For example, CCR Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than five minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Section 2449(d)(3) requires that grading plans shall reference the requirement that a sign shall be posted on-site stating that construction workers need to shut off engines at or before five minutes of idling.” In this manner, construction equipment operators are required to be informed that engines are to be turned off at or prior to five minutes of idling. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints.

A full analysis related to the energy needed to form construction materials is not included in this analysis due to a lack of detailed Project-specific information on construction materials. At this time, an analysis of the energy needed to create Project-related construction materials would be extremely speculative and thus has not been prepared.

In general, construction processes promote conservation and efficient use of energy by reducing raw materials demands, with related reduction in energy demands associated with raw materials extraction, transportation, processing, and refinement. Use of materials in bulk reduces energy

demands associated with preparation and transport of construction materials as well as the transport and disposal of construction waste and solid waste in general, with corollary reduced demands on area landfill capacities and energy consumed by waste transport and landfill operations.

## **5.4 OPERATIONAL ENERGY DEMANDS**

Energy consumption in support of or related to Project operations would include transportation fuel demands (fuel consumed by passenger car and truck vehicles accessing the Project site), fuel demands from operational equipment, and facilities energy demands (energy consumed by building operations and site maintenance activities).

### **5.4.1 TRANSPORTATION FUEL DEMANDS**

Energy that would be consumed by Project-generated traffic is a function of total VMT and estimated vehicle fuel economies of vehicles accessing the Project site. The VMT per vehicle class can be determined by evaluated in the vehicle fleet mix and the total VMT. As with worker and vendors trips, operational vehicle fuel efficiencies were estimated using information generated within EMFAC2021 developed by CARB (24). EMFAC2021 was run for the San Bernardino County area for the 2024 calendar year. Data from EMFAC2021 is shown in Appendix 5.3.

In order to account for the possibility of refrigerated uses (cold storage), it is assumed that all trucks accessing this land use are presumed to also have transport refrigeration units (TRUs). Therefore, for modeling purposes 11 trucks are assumed to be trucks with TRUs. TRUs are also accounted for during on-site and off-site travel. The TRU calculations are based on EMFAC2021.

The estimated transportation energy demands are summarized on Table 5-9. It should be noted that the existing development demands were subtracted from the Project demands to determine the net transportation energy demands from the proposed Project. As summarized on Table 5-10 the Project would result in a net increase of 638,365 annual VMT and an estimated annual fuel consumption of 45,152 gallons of fuel.

**TABLE 5-9: TOTAL PROJECT-GENERATED TRAFFIC ANNUAL FUEL CONSUMPTION**

Vehicle Type	Average Vehicle Fuel Economy (mpg)	Annual VMT	Estimated Annual Fuel Consumption (gallons)
LDA	31.57	664,379	21,042
LDT1	24.59	55,178	2,244
LDT2	24.51	264,546	10,795
MDV	14.97	173,686	11,604
MCY	14.97	23,749	1,587
LHD1	15.81	131,551	8,319
LHD2	14.97	35,486	2,371
MHD	8.32	168,801	20,298
HHD	6.03	547,048	90,792
TRUs			10,354
<b>TOTAL (ALL VEHICLES)</b>		<b>2,064,424</b>	<b>179,406</b>
<b>EXISTING (ALL VEHICLES)</b>		<b>1,426,059</b>	<b>134,254</b>
<b>NET (PROPOSED – EXISTING)</b>		<b>638,365</b>	<b>45,152</b>

**5.4.2 ON-SITE CARGO HANDLING EQUIPMENT FUEL DEMANDS**

It is common for industrial buildings to require the operation of exterior cargo handling equipment in the building's truck court areas. For this particular Project, on-site modeled operational equipment includes up to one (1) 175 horsepower (hp), natural gas-powered cargo handling equipment – port tractors operating at 4 hours a day<sup>6</sup> for 365 days of the year.

Project operational activity estimates and associated fuel consumption estimates are based on the annual EMFAC2021 offroad emissions for the 2024 operational year and was used to derive the total annual fuel consumption associated on-site equipment. As presented in Table 5-10, Project on-site equipment would consume an estimated 4,642 gallons of natural gas.

**TABLE 5-10: ON-SITE CARGO HANDLING EQUIPMENT FUEL CONSUMPTION ESTIMATES**

Equipment	Quantity	Usage Hours	Days of Operation	EMFAC2021 Fuel Consumption (gal./yr)	EMFAC2021 Activity (hrs./yr)	Total Fuel Consumption
Cargo Handling Equipment	1	4	365	17,909	5,633	4,642
<b>ON-SITE CARGO HANDLING EQUIPMENT FUEL DEMAND (GALLONS FUEL)</b>						<b>4,642</b>

<sup>6</sup> Based on Table II-3, Port and Rail Cargo Handling Equipment Demographics by Type, from CARB's Technology Assessment: Mobile Cargo Handling Equipment document, a single piece of equipment could operate up to 2 hours per day (Total Average Annual Activity divided by Total Number Pieces of Equipment). As such, the analysis conservatively assumes that the tractor/loader/backhoe would operate up to 4 hours per day.

### 5.4.3 FACILITY ENERGY DEMANDS

Project building operations activities would result in the consumption of electricity and natural gas, which would be supplied to the Project by SCE and SoCalGas, respectively. Annual natural gas and electricity demands of the Project are summarized in Table 5-11. It should be noted that the existing development demands were subtracted from the Project demands to determine the net facility energy demands from the proposed Project. As summarized on Table 5-11 the Project would result in a net increase of 4,543,279 kBTU/year of natural gas and a net increase of 746,675 kWh/year of electricity.

**TABLE 5-11: PROJECT ANNUAL OPERATIONAL ENERGY DEMAND SUMMARY**

Land Use	Natural Gas Demand (kBTU/year)	Electricity Demand (kWh/year)
Warehousing	4,625,355	1,123,744
High-Cube Cold Storage	712,190	591,921
Landscape	0	58,383
Parking	0	0
Other Asphalt Surfaces	0	0
<b>TOTAL PROJECT ENERGY DEMAND</b>	<b>5,337,545</b>	<b>1,774,048</b>
<i>EXISTING ENERGY DEMAND</i>	<i>794,266</i>	<i>1,027,373</i>
<b>NET PROJECT ENERGY DEMAND</b>	<b>4,543,279</b>	<b>746,675</b>

### 5.4.4 OPERATIONAL ENERGY EFFICIENCY/CONSERVATION MEASURES

Energy efficiency/energy conservation attributes of the Project would be complemented by increasingly stringent state and federal regulatory actions addressing vehicle fuel economies and vehicle emissions standards; and enhanced building/utilities energy efficiencies mandated under California building codes (e.g., Title24, California Green Building Standards Code).

#### ENHANCED VEHICLE FUEL EFFICIENCIES

Project annual fuel consumption estimates presented previously in Table 5-9 represent likely potential maximums that would occur for the Project. Under subsequent future conditions, average fuel economies of vehicles accessing the Project site can be expected to improve as older, less fuel-efficient vehicles are removed from circulation, and in response to fuel economy and emissions standards imposed on newer vehicles entering the circulation system.

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands.

## 5.5 SUMMARY

### 5.5.1 CONSTRUCTION ENERGY DEMANDS

The estimated power cost of on-site electricity usage during the construction of the Project is assumed to be approximately \$15,109.48. Additionally, based on the assumed power cost, it is estimated that the total electricity usage during construction, after full Project buildout, is calculated to be approximately 113,853 kWh.

Construction equipment used by the Project would result in single event consumption of approximately 67,491 gallons of diesel fuel. Construction equipment use of fuel would not be atypical for the type of construction proposed because there are no aspects of the Project's proposed construction process that are unusual or energy-intensive, and Project construction equipment would conform to the applicable CARB emissions standards, acting to promote equipment fuel efficiencies.

CCR Title 13, Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. BACMs inform construction equipment operators of this requirement. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints.

Construction worker trips for full construction of the Project would result in the estimated fuel consumption of 15,066 gallons of fuel. Additionally, fuel consumption from construction vendor trips (MHDs and HHDs) will total approximately 11,965 gallons. Diesel fuel would be supplied by City and regional commercial vendors. Indirectly, construction energy efficiencies and energy conservation would be achieved using bulk purchases, transport and use of construction materials. The 2021 IEPR released by the CEC has shown that fuel efficiencies are getting better within on and off-road vehicle engines due to more stringent government requirements (15). As supported by the preceding discussions, Project construction energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

### 5.5.2 OPERATIONAL ENERGY DEMANDS

#### TRANSPORTATION ENERGY DEMANDS

Annual vehicular trips and related VMT generated by the operation of the Project would result in a fuel demand of 45,152 gallons of fuel.

Fuel would be provided by current and future commercial vendors. Trip generation and VMT generated by the Project are consistent with other industrial uses of similar scale and configuration, as reflected respectively in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Ed., 2021); and CalEEMod. As such, Project operations would not result in excessive and wasteful vehicle trips and VMT, nor excess and wasteful vehicle energy consumption compared to other industrial uses.

It should be noted that the state strategy for the transportation sector for medium and heavy-duty trucks is focused on making trucks more efficient and expediting truck turnover rather than reducing VMT from trucks. This is in contrast to the passenger vehicle component of the transportation sector where both per-capita VMT reductions and an increase in vehicle efficiency are forecasted to be needed to achieve the overall state emissions reductions goals.

Heavy duty trucks involved in goods movements are generally controlled on the technology side and through fleet turnover of older trucks and engines to newer and cleaner trucks and engines. The first battery-electric heavy-heavy duty trucks are being tested this year and SCAQMD is looking to integrate this new technology into large-scale truck operations. The following state strategies reduce GHG emissions from the medium and heavy-duty trucks:

- CARB's Mobile Source Strategy focuses on reducing GHGs through the transition to zero and low emission vehicles and from medium-duty and heavy-duty trucks.
- CARB's Sustainable Freight Action Plan establishes a goal to improve freight efficiency by 25% by 2030, deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.
- CARB's Emissions Reduction Plan for Ports and Goods Movement (Goods Movement Plan) in California focuses on reducing heavy-duty truck-related emissions focus on establishment of emissions standards for trucks, fleet turnover, truck retrofits, and restriction on truck idling (CARB 2006). While the focus of Goods Movement Plan is to reduce criteria air pollutant and air toxic emissions, the strategies to reduce these pollutants would also generally have a beneficial effect in reducing GHG emissions.
- CARB's On-Road Truck and Bus Regulation (2010) requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Newer heavier trucks and buses must meet particulate matter filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent (29).
- CARB's Heavy-Duty (Tractor-Trailer) GHG Regulation requires SmartWay tractor trailers that include idle-reduction technologies, aerodynamic technologies, and low-rolling resistant tires that would reduce fuel consumption and associated GHG emissions.

The proposed Project would implement project design features that would facilitate the accessibility, parking, and loading of trucks on-site.

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands. The Project would implement sidewalks, facilitating and encouraging pedestrian access. Facilitating pedestrian and bicycle access would reduce VMT and associated energy consumption. In compliance with the California Green Building Standards Code and City requirements, the Project would promote the use of bicycles as an alternative mean of transportation by providing short-term and/or long-term bicycle



parking accommodations. As supported by the preceding discussions, Project transportation energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

#### **ON-SITE CARGO HANDLING EQUIPMENT FUEL DEMANDS**

As previously stated, it is common for industrial buildings to require the operation of exterior cargo handling equipment in the building's truck court areas. On-site cargo handling equipment used by the Project would result in approximately 4,642 gallons of natural gas. On-site equipment use of fuel would not be atypical for the type of construction proposed because there are no aspects of the Project's proposed operations that are unusual or energy-intensive, and Project on-site equipment would conform to the applicable CARB emissions standards, acting to promote equipment fuel efficiencies.

#### **FACILITY ENERGY DEMANDS**

Project facility operational energy demands are estimated to be: 4,543,279 kBTU/year of natural gas and 746,675 kWh/year of electricity. Natural gas will be supplied to the Project by SoCalGas and electricity would be supplied by SCE. The Project proposes conventional industrial uses reflecting contemporary energy efficient/energy conserving designs and operational programs. The Project does not propose uses that are inherently energy intensive and the energy demands in total would be comparable to other industrial uses of similar scale and configuration.

Lastly, the Project will comply with the applicable Title 24 standards. Compliance itself with applicable Title 24 standards will ensure that the Project energy demands would not be inefficient, wasteful, or otherwise unnecessary.

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## 6 CONCLUSIONS

### 6.1 ENERGY IMPACT 1

***Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?***

As supported by the preceding analyses, Project construction and operations would not result in the inefficient, wasteful, or unnecessary consumption of energy. The Project would therefore not cause or result in the need for additional energy producing or transmission facilities. The Project would not engage in wasteful or inefficient uses of energy and aims to achieve energy conservations goals within the State of California.

### 6.2 ENERGY IMPACT 2

***Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?***

The Project's consistency with the applicable state and local plans is discussed below.

#### CONSISTENCY WITH ISTE A

Transportation and access to the Project site is provided by the local and regional roadway systems. The Project would not interfere with, nor otherwise obstruct intermodal transportation plans or projects that may be realized pursuant to the ISTE A because SCAG is not planning for intermodal facilities on or through the Project site.

#### CONSISTENCY WITH TEA-21

The Project site is located along major transportation corridors with proximate access to the Interstate freeway system. The site selected for the Project facilitates access, acts to reduce vehicle miles traveled, takes advantage of existing infrastructure systems, and promotes land use compatibilities through collocation of similar uses. The Project supports the strong planning processes emphasized under TEA-21. The Project is therefore consistent with, and would not otherwise interfere with, nor obstruct implementation of TEA-21.

#### CONSISTENCY WITH IEPR

Electricity would be provided to the Project by SCE. SCE's *Clean Power and Electrification Pathway* (CPEP) white paper builds on existing state programs and policies. As such, the Project is consistent with, and would not otherwise interfere with, nor obstruct implementation the goals presented in the 2021 IEPR.

Additionally, the Project will comply with the applicable Title 24 standards which would ensure that the Project energy demands would not be inefficient, wasteful, or otherwise unnecessary. As such, development of the proposed Project would support the goals presented in the 2020 IEPR.

**CONSISTENCY WITH STATE OF CALIFORNIA ENERGY PLAN**

The Project site is located along major transportation corridors with proximate access to the Interstate freeway system. The site selected for the Project facilitates access and takes advantage of existing infrastructure systems. The Project therefore supports urban design and planning processes identified under the State of California Energy Plan, is consistent with, and would not otherwise interfere with or obstruct, implementation of the State of California Energy Plan.

**CONSISTENCY WITH CALIFORNIA CODE TITLE 24, PART 6, ENERGY EFFICIENCY STANDARDS**

The 2022 version of Title 24 was adopted by the CEC and will become effective on January 1, 2023. As the Project building construction is anticipated in 2024, it is presumed that the Project would be required to comply with the Title 24 standards in place at that time. Therefore, the Project is would not result in a significant impact on energy resources (16). The proposed Project would be subject to Title 24 standards.

**CONSISTENCY WITH CALIFORNIA CODE TITLE 24, PART 11, CALGREEN**

As previously stated, CCR, Title 24, Part 11: CALGreen is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on January 1, 2009, and is administered by the California Building Standards Commission. CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that were published on July 1, 2022 and will become effective on January 1, 2023. The Project would be required to comply with the applicable standards in place at the time plan check submittals are made.

**CONSISTENCY WITH AB 1493**

AB 1493 is not applicable to the Project as it is a statewide measure establishing vehicle emissions standards. No feature of the Project would interfere with implementation of the requirements under AB 1493.

**CONSISTENCY WITH RPS**

California's RPS is not applicable to the Project as it is a statewide measure that establishes a renewable energy mix. No feature of the Project would interfere with implementation of the requirements under RPS.

**CONSISTENCY WITH SB 350**

The proposed Project would use energy from SCE, which have committed to diversify their portfolio of energy sources by increasing energy from wind and solar sources. No feature of the Project would interfere with implementation of SB 350. Additionally, the Project would be designed and constructed to implement the energy efficiency measures for new industrial developments and would include several measures designed to reduce energy consumption.

As shown above, the Project would not conflict with any of the state or local plans. As such, a less than significant impact is expected.

**CONSISTENCY WITH CCAP**

The Project would comply with applicable CAP checklist measures, compliance with the CCAP checklist measures would further reduce reliance on fossil fuels and expand the use of renewable energy.

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## 8 CERTIFICATIONS

The contents of this energy analysis report represent an accurate depiction of the environmental impacts associated with the proposed 5355 East Airport Drive. The information contained in this energy analysis report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at [hqureshi@urbanxroads.com](mailto:hqureshi@urbanxroads.com).

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### EDUCATION

Master of Science in Environmental Studies  
California State University, Fullerton • May 2010

Bachelor of Arts in Environmental Analysis and Design  
University of California, Irvine • June 2006

### PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners  
AWMA – Air and Waste Management Association  
ASTM – American Society for Testing and Materials

### PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June 2011  
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April 2008  
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AB2588 Regulatory Standards – Trinity Consultants • November 2006  
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**APPENDIX 4.1:**

**CALEEMOD EXISTING OPERATIONS EMISSIONS MODEL OUTPUTS**

# IE Distribution Center #14 (Existing Passenger Car Operations) Detailed Report

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# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	IE Distribution Center #14 (Existing Passenger Car Operations)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	20.8
Location	34.06334566920109, -117.53410603073728
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5288
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	41.8	1000sqft	0.96	41,780	0.00	0.00	—	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

## 2. Emissions Summary

### 2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.29	2.16	0.98	12.8	0.02	0.04	0.80	0.85	0.04	0.14	0.18	39.7	3,803	3,842	4.23	0.11	1,122	5,104
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.92	1.82	1.03	8.94	0.02	0.04	0.80	0.84	0.04	0.14	0.18	39.7	3,615	3,655	4.24	0.12	1,114	4,909
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.90	1.80	0.89	8.16	0.02	0.04	0.59	0.63	0.04	0.10	0.14	39.7	3,086	3,126	4.22	0.10	1,116	4,378
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.16	0.33	0.16	1.49	< 0.005	0.01	0.11	0.11	0.01	0.02	0.03	6.57	511	518	0.70	0.02	185	725

### 2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

IE Distribution Center #14 (Existing Passenger Car Operations) Detailed Report, 8/18/2022

Mobile	0.92	0.84	0.54	10.7	0.02	0.01	0.80	0.81	0.01	0.14	0.15	—	2,242	2,242	0.08	0.05	8.87	2,269
Area	0.32	1.30	0.02	1.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.47	7.47	< 0.005	< 0.005	—	7.69
Energy	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,490	1,490	0.14	0.01	—	1,498
Water	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Waste	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Total	1.29	2.16	0.98	12.8	0.02	0.04	0.80	0.85	0.04	0.14	0.18	39.7	3,803	3,842	4.23	0.11	1,122	5,104
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.87	0.79	0.60	8.58	0.02	0.01	0.80	0.81	0.01	0.14	0.15	—	2,062	2,062	0.08	0.06	0.23	2,081
Area	—	1.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,490	1,490	0.14	0.01	—	1,498
Water	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Waste	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Total	0.92	1.82	1.03	8.94	0.02	0.04	0.80	0.84	0.04	0.14	0.18	39.7	3,615	3,655	4.24	0.12	1,114	4,909
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.63	0.57	0.45	6.56	0.02	0.01	0.59	0.59	0.01	0.10	0.11	—	1,528	1,528	0.06	0.04	2.80	1,545
Area	0.22	1.20	0.01	1.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.12	5.12	< 0.005	< 0.005	—	5.27
Energy	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,490	1,490	0.14	0.01	—	1,498
Water	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Waste	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Total	0.90	1.80	0.89	8.16	0.02	0.04	0.59	0.63	0.04	0.10	0.14	39.7	3,086	3,126	4.22	0.10	1,116	4,378
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.12	0.10	0.08	1.20	< 0.005	< 0.005	0.11	0.11	< 0.005	0.02	0.02	—	253	253	0.01	0.01	0.46	256
Area	0.04	0.22	< 0.005	0.23	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.87

Energy	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	247	247	0.02	< 0.005	—	248
Water	—	—	—	—	—	—	—	—	—	—	—	3.07	10.4	13.5	0.32	0.01	—	23.6
Waste	—	—	—	—	—	—	—	—	—	—	—	3.50	0.00	3.50	0.35	0.00	—	12.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	184	184
Total	0.16	0.33	0.16	1.49	< 0.005	0.01	0.11	0.11	0.01	0.02	0.03	6.57	511	518	0.70	0.02	185	725

## 4. Operations Emissions Details

### 4.1. Mobile Emissions by Land Use

#### 4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.92	0.84	0.54	10.7	0.02	0.01	0.10	0.11	0.01	0.03	0.04	—	2,242	2,242	0.08	0.05	8.87	2,269
Total	0.92	0.84	0.54	10.7	0.02	0.01	0.10	0.11	0.01	0.03	0.04	—	2,242	2,242	0.08	0.05	8.87	2,269
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.87	0.79	0.60	8.58	0.02	0.01	0.10	0.11	0.01	0.03	0.04	—	2,062	2,062	0.08	0.06	0.23	2,081
Total	0.87	0.79	0.60	8.58	0.02	0.01	0.10	0.11	0.01	0.03	0.04	—	2,062	2,062	0.08	0.06	0.23	2,081

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.12	0.10	0.08	1.20	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	—	253	253	0.01	0.01	0.46	256
Total	0.12	0.10	0.08	1.20	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	—	253	253	0.01	0.01	0.46	256

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	981	981	0.09	0.01	—	987
Total	—	—	—	—	—	—	—	—	—	—	—	—	981	981	0.09	0.01	—	987
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	981	981	0.09	0.01	—	987
Total	—	—	—	—	—	—	—	—	—	—	—	—	981	981	0.09	0.01	—	987
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	—	—	—	—	—	—	—	—	—	—	—	—	—	162	162	0.02	< 0.005	—	163
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	162	162	0.02	< 0.005	—	163

#### 4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	509	509	0.05	< 0.005	—	511
Total	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	509	509	0.05	< 0.005	—	511
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	509	509	0.05	< 0.005	—	511
Total	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	509	509	0.05	< 0.005	—	511
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	84.3	84.3	0.01	< 0.005	—	84.5
Total	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	84.3	84.3	0.01	< 0.005	—	84.5

### 4.3. Area Emissions by Source

#### 4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.89	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.32	0.30	0.02	1.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.47	7.47	< 0.005	< 0.005	—	7.69
Total	0.32	1.30	0.02	1.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.47	7.47	< 0.005	< 0.005	—	7.69
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.89	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	1.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



Architectural	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.04	0.04	< 0.005	0.23	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.87
Total	0.04	0.22	< 0.005	0.23	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.87

#### 4.4. Water Emissions by Land Use

##### 4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Total	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Total	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	—	—	—	—	—	—	—	—	—	—	—	3.07	10.4	13.5	0.32	0.01	—	23.6
Total	—	—	—	—	—	—	—	—	—	—	—	3.07	10.4	13.5	0.32	0.01	—	23.6

#### 4.5. Waste Emissions by Land Use

##### 4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Total	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Total	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	3.50	0.00	3.50	0.35	0.00	—	12.3

Total	—	—	—	—	—	—	—	—	—	—	—	—	3.50	0.00	3.50	0.35	0.00	—	12.3
-------	---	---	---	---	---	---	---	---	---	---	---	---	------	------	------	------	------	---	------

## 4.6. Refrigerant Emissions by Land Use

### 4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113	
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113	
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	184	184	
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	184	184	

### 4.7. Offroad Emissions By Equipment Type

#### 4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.8. Stationary Emissions By Equipment Type

#### 4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.9. User Defined Emissions By Equipment Type

#### 4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.10. Soil Carbon Accumulation By Vegetation Type

#### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 5. Activity Data

### 5.9. Operational Mobile Sources

#### 5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	207	17.5	7.02	55,311	3,007	254	102	802,453

### 5.10. Operational Area Sources

#### 5.10.1. Hearths

##### 5.10.1.1. Unmitigated

#### 5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	62,670	20,890	—

#### 5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

### 5.11. Operational Energy Consumption

#### 5.11.1. Unmitigated



Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	1,027,373	349	0.0330	0.0040	794,266

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	9,661,625	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	39.3	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Unrefrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
----------------	-----------	-------------	----------------	---------------	------------	-------------

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

## 5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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## 6. Climate Risk Detailed Report

### 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.1	annual days of extreme heat
Extreme Precipitation	5.30	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about  $\frac{3}{4}$  an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

### 6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A

Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

### 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

### 6.4. Climate Risk Reduction Measures

## 7. Health and Equity Details

## 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	95.7
AQ-DPM	96.6
Drinking Water	93.3
Lead Risk Housing	8.61
Pesticides	0.00
Toxic Releases	78.9
Traffic	89.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	30.9
Haz Waste Facilities/Generators	78.8
Impaired Water Bodies	0.00
Solid Waste	70.4
Sensitive Population	—
Asthma	47.3
Cardio-vascular	67.3
Low Birth Weights	57.1
Socioeconomic Factor Indicators	—
Education	40.5
Housing	32.3
Linguistic	18.1
Poverty	23.9

Unemployment	53.9
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### 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	76.78686
Employed	63.51854228
Education	—
Bachelor's or higher	44.59129988
High school enrollment	3.977928911
Preschool enrollment	15.60374695
Transportation	—
Auto Access	88.68215065
Active commuting	10.11163865
Social	—
2-parent households	11.86962659
Voting	50.91749006
Neighborhood	—
Alcohol availability	69.3314513
Park access	61.63223406
Retail density	69.31861927
Supermarket access	2.399589375
Tree canopy	29.69331451
Housing	—
Homeownership	78.81432054
Housing habitability	80.20017965

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Low-inc homeowner severe housing cost burden	88.74631079
Low-inc renter severe housing cost burden	37.86731682
Uncrowded housing	60.77248813
Health Outcomes	—
Insured adults	67.2783267
Arthritis	74.6
Asthma ER Admissions	54.3
High Blood Pressure	79.9
Cancer (excluding skin)	68.9
Asthma	49.0
Coronary Heart Disease	85.5
Chronic Obstructive Pulmonary Disease	74.0
Diagnosed Diabetes	64.3
Life Expectancy at Birth	52.5
Cognitively Disabled	87.2
Physically Disabled	77.4
Heart Attack ER Admissions	10.4
Mental Health Not Good	50.5
Chronic Kidney Disease	79.8
Obesity	43.5
Pedestrian Injuries	99.0
Physical Health Not Good	58.2
Stroke	80.6
Health Risk Behaviors	—
Binge Drinking	19.3
Current Smoker	53.5
No Leisure Time for Physical Activity	61.3

Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	32.5
Elderly	84.2
English Speaking	91.4
Foreign-born	35.9
Outdoor Workers	45.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	76.5
Traffic Density	89.2
Traffic Access	46.3
Other Indices	—
Hardship	44.0
Other Decision Support	—
2016 Voting	74.5

### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	65.0
Healthy Places Index Score for Project Location (b)	42.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.



### 7.4. Health & Equity Measures

No Health & Equity Measures selected.

### 7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

## 8. User Changes to Default Data

Screen	Justification
Operations: Vehicle Data	Trip rates based on existing activities
Operations: Fleet Mix	Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, & MCY)
Operations: Energy Use	Electricity usage based on electricity bills provided by Applicant

# IE Distribution Center #14 (Existing Truck Operations) Detailed Report

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## 8. User Changes to Default Data

# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	IE Distribution Center #14 (Existing Truck Operations)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	20.8
Location	34.06334566920109, -117.53410603073728
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5288
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	41.8	1000sqft	0.96	41,780	0.00	0.00	—	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

## 2. Emissions Summary

### 2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.30	1.51	9.14	7.26	0.07	0.15	1.11	1.27	0.15	0.27	0.41	39.7	8,807	8,847	4.87	1.17	1,133	10,451
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.96	1.20	9.51	5.46	0.07	0.15	1.11	1.26	0.14	0.27	0.41	39.7	8,802	8,842	4.87	1.17	1,114	10,427
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.94	1.36	7.14	5.32	0.05	0.12	0.81	0.93	0.12	0.20	0.31	39.7	6,858	6,897	4.68	0.87	1,120	8,395
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.17	0.25	1.30	0.97	0.01	0.02	0.15	0.17	0.02	0.04	0.06	6.57	1,135	1,142	0.78	0.14	185	1,390

### 2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



IE Distribution Center #14 (Existing Truck Operations) Detailed Report, 8/18/2022

Mobile	0.93	0.19	8.70	5.08	0.06	0.12	1.11	1.23	0.11	0.27	0.38	—	7,247	7,247	0.72	1.11	19.2	7,616
Area	0.32	1.30	0.02	1.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.47	7.47	< 0.005	< 0.005	—	7.69
Energy	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,490	1,490	0.14	0.01	—	1,498
Water	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Waste	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Total	1.30	1.51	9.14	7.26	0.07	0.15	1.11	1.27	0.15	0.27	0.41	39.7	8,807	8,847	4.87	1.17	1,133	10,451
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.92	0.18	9.08	5.10	0.06	0.12	1.11	1.23	0.11	0.27	0.38	—	7,249	7,249	0.72	1.12	0.50	7,600
Area	—	1.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,490	1,490	0.14	0.01	—	1,498
Water	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Waste	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Total	0.96	1.20	9.51	5.46	0.07	0.15	1.11	1.26	0.14	0.27	0.41	39.7	8,802	8,842	4.87	1.17	1,114	10,427
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.67	0.13	6.71	3.72	0.05	0.08	0.81	0.90	0.08	0.20	0.28	—	5,299	5,299	0.52	0.82	6.07	5,562
Area	0.22	1.20	0.01	1.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.12	5.12	< 0.005	< 0.005	—	5.27
Energy	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,490	1,490	0.14	0.01	—	1,498
Water	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Waste	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Total	0.94	1.36	7.14	5.32	0.05	0.12	0.81	0.93	0.12	0.20	0.31	39.7	6,858	6,897	4.68	0.87	1,120	8,395
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.12	0.02	1.22	0.68	0.01	0.02	0.15	0.16	0.01	0.04	0.05	—	877	877	0.09	0.14	1.01	921
Area	0.04	0.22	< 0.005	0.23	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.87

Energy	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	247	247	0.02	< 0.005	—	248
Water	—	—	—	—	—	—	—	—	—	—	—	3.07	10.4	13.5	0.32	0.01	—	23.6
Waste	—	—	—	—	—	—	—	—	—	—	—	3.50	0.00	3.50	0.35	0.00	—	12.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	184	184
Total	0.17	0.25	1.30	0.97	0.01	0.02	0.15	0.17	0.02	0.04	0.06	6.57	1,135	1,142	0.78	0.14	185	1,390

## 4. Operations Emissions Details

### 4.1. Mobile Emissions by Land Use

#### 4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.93	0.19	8.70	5.08	0.06	0.12	0.57	0.69	0.11	0.18	0.30	—	7,247	7,247	0.72	1.11	19.2	7,616
Total	0.93	0.19	8.70	5.08	0.06	0.12	0.57	0.69	0.11	0.18	0.30	—	7,247	7,247	0.72	1.11	19.2	7,616
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.92	0.18	9.08	5.10	0.06	0.12	0.57	0.69	0.11	0.18	0.30	—	7,249	7,249	0.72	1.12	0.50	7,600
Total	0.92	0.18	9.08	5.10	0.06	0.12	0.57	0.69	0.11	0.18	0.30	—	7,249	7,249	0.72	1.12	0.50	7,600

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.12	0.02	1.22	0.68	0.01	0.02	0.08	0.09	0.01	0.02	0.04	—	877	877	0.09	0.14	1.01	921
Total	0.12	0.02	1.22	0.68	0.01	0.02	0.08	0.09	0.01	0.02	0.04	—	877	877	0.09	0.14	1.01	921

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	981	981	0.09	0.01	—	987
Total	—	—	—	—	—	—	—	—	—	—	—	—	981	981	0.09	0.01	—	987
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	981	981	0.09	0.01	—	987
Total	—	—	—	—	—	—	—	—	—	—	—	—	981	981	0.09	0.01	—	987
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	—	—	—	—	—	—	—	—	—	—	—	—	162	162	0.02	< 0.005	—	163
Total	—	—	—	—	—	—	—	—	—	—	—	—	162	162	0.02	< 0.005	—	163

#### 4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	509	509	0.05	< 0.005	—	511
Total	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	509	509	0.05	< 0.005	—	511
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	509	509	0.05	< 0.005	—	511
Total	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	509	509	0.05	< 0.005	—	511
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	84.3	84.3	0.01	< 0.005	—	84.5
Total	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	84.3	84.3	0.01	< 0.005	—	84.5

### 4.3. Area Emissions by Source

#### 4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.89	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.32	0.30	0.02	1.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.47	7.47	< 0.005	< 0.005	—	7.69
Total	0.32	1.30	0.02	1.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.47	7.47	< 0.005	< 0.005	—	7.69
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.89	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	1.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.04	0.04	< 0.005	0.23	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.87
Total	0.04	0.22	< 0.005	0.23	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.87

#### 4.4. Water Emissions by Land Use

##### 4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Total	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Total	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	—	—	—	—	—	—	—	—	—	—	—	3.07	10.4	13.5	0.32	0.01	—	23.6
Total	—	—	—	—	—	—	—	—	—	—	—	3.07	10.4	13.5	0.32	0.01	—	23.6

#### 4.5. Waste Emissions by Land Use

##### 4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Total	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Total	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	3.50	0.00	3.50	0.35	0.00	—	12.3

Total	—	—	—	—	—	—	—	—	—	—	—	3.50	0.00	3.50	0.35	0.00	—	12.3
-------	---	---	---	---	---	---	---	---	---	---	---	------	------	------	------	------	---	------

## 4.6. Refrigerant Emissions by Land Use

### 4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	184	184
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	184	184



### 4.7. Offroad Emissions By Equipment Type

#### 4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.8. Stationary Emissions By Equipment Type

#### 4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.9. User Defined Emissions By Equipment Type

#### 4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.10. Soil Carbon Accumulation By Vegetation Type

#### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 5. Activity Data

### 5.9. Operational Mobile Sources

#### 5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	106	8.93	3.57	28,184	2,337	198	79.1	623,606

### 5.10. Operational Area Sources

#### 5.10.1. Hearths

##### 5.10.1.1. Unmitigated

#### 5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	62,670	20,890	—

#### 5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

### 5.11. Operational Energy Consumption

#### 5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	1,027,373	349	0.0330	0.0040	794,266

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	9,661,625	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	39.3	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Unrefrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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## 5.16. Stationary Sources

### 5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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### 5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
----------------	-----------	--------	--------------------------	------------------------------	------------------------------

## 5.17. User Defined

Equipment Type	Fuel Type
—	—

## 5.18. Vegetation

### 5.18.1. Land Use Change

#### 5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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### 5.18.1. Biomass Cover Type

#### 5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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### 5.18.2. Sequestration

## 5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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## 6. Climate Risk Detailed Report

### 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.1	annual days of extreme heat
Extreme Precipitation	5.30	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about  $\frac{3}{4}$  an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

### 6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A



Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

### 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

### 6.4. Climate Risk Reduction Measures

## 7. Health and Equity Details

## 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	95.7
AQ-DPM	96.6
Drinking Water	93.3
Lead Risk Housing	8.61
Pesticides	0.00
Toxic Releases	78.9
Traffic	89.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	30.9
Haz Waste Facilities/Generators	78.8
Impaired Water Bodies	0.00
Solid Waste	70.4
Sensitive Population	—
Asthma	47.3
Cardio-vascular	67.3
Low Birth Weights	57.1
Socioeconomic Factor Indicators	—
Education	40.5
Housing	32.3
Linguistic	18.1
Poverty	23.9

Unemployment	53.9
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## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	76.78686
Employed	63.51854228
Education	—
Bachelor's or higher	44.59129988
High school enrollment	3.977928911
Preschool enrollment	15.60374695
Transportation	—
Auto Access	88.68215065
Active commuting	10.11163865
Social	—
2-parent households	11.86962659
Voting	50.91749006
Neighborhood	—
Alcohol availability	69.3314513
Park access	61.63223406
Retail density	69.31861927
Supermarket access	2.399589375
Tree canopy	29.69331451
Housing	—
Homeownership	78.81432054
Housing habitability	80.20017965

Low-inc homeowner severe housing cost burden	88.74631079
Low-inc renter severe housing cost burden	37.86731682
Uncrowded housing	60.77248813
Health Outcomes	—
Insured adults	67.2783267
Arthritis	74.6
Asthma ER Admissions	54.3
High Blood Pressure	79.9
Cancer (excluding skin)	68.9
Asthma	49.0
Coronary Heart Disease	85.5
Chronic Obstructive Pulmonary Disease	74.0
Diagnosed Diabetes	64.3
Life Expectancy at Birth	52.5
Cognitively Disabled	87.2
Physically Disabled	77.4
Heart Attack ER Admissions	10.4
Mental Health Not Good	50.5
Chronic Kidney Disease	79.8
Obesity	43.5
Pedestrian Injuries	99.0
Physical Health Not Good	58.2
Stroke	80.6
Health Risk Behaviors	—
Binge Drinking	19.3
Current Smoker	53.5
No Leisure Time for Physical Activity	61.3

Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	32.5
Elderly	84.2
English Speaking	91.4
Foreign-born	35.9
Outdoor Workers	45.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	76.5
Traffic Density	89.2
Traffic Access	46.3
Other Indices	—
Hardship	44.0
Other Decision Support	—
2016 Voting	74.5

### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	65.0
Healthy Places Index Score for Project Location (b)	42.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

### 7.4. Health & Equity Measures

No Health & Equity Measures selected.

### 7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

## 8. User Changes to Default Data

Screen	Justification
Operations: Vehicle Data	Trip rates based on existing activities
Operations: Fleet Mix	Truck Mix based on SCAQMD recommended truck mix
Operations: Energy Use	Electricity usage based on bills provided by the Applicant

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**APPENDIX 5.1:**

**CALEEMOD PROJECT CONSTRUCTION EMISSIONS MODEL OUTPUTS**



# IE Distribution Center #14 (Construction) Detailed Report

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# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	IE Distribution Center #14 (Construction)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	20.8
Location	34.06334566920109, -117.53410603073728
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5288
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	243	1000sqft	7.08	243,303	65,274	0.00	—	—
Refrigerated Warehouse-No Rail	27.0	1000sqft	0.79	27,034	7,253	0.00	—	—

Parking Lot	299	Space	1.53	0.00	0.00	0.00	—	—
Other Asphalt Surfaces	161	1000sqft	3.68	0.00	0.00	0.00	—	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

## 2. Emissions Summary

### 2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.13	47.2	39.6	71.8	0.13	0.38	9.62	9.95	0.36	4.00	4.32	—	15,836	15,836	0.86	0.60	10.9	16,044
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.08	47.1	30.4	53.5	0.07	0.38	2.20	2.58	0.36	0.52	0.89	—	9,589	9,589	0.43	0.25	0.28	9,674
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.67	4.08	10.5	18.5	0.03	0.13	1.31	1.44	0.12	0.45	0.57	—	3,729	3,729	0.19	0.12	1.43	3,770
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.12	0.74	1.92	3.37	0.01	0.02	0.24	0.26	0.02	0.08	0.10	—	617	617	0.03	0.02	0.24	624

### 2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	2.13	1.77	39.6	71.8	0.13	0.33	9.62	9.95	0.32	4.00	4.32	—	15,836	15,836	0.86	0.60	9.37	16,044
2024	2.12	47.2	30.2	56.6	0.07	0.38	2.20	2.58	0.36	0.52	0.89	—	9,771	9,771	0.43	0.25	10.9	9,867
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.65	1.48	21.7	39.8	0.06	0.26	1.70	1.96	0.25	0.41	0.65	—	7,437	7,437	0.35	0.22	0.24	7,510
2024	2.08	47.1	30.4	53.5	0.07	0.38	2.20	2.58	0.36	0.52	0.89	—	9,589	9,589	0.43	0.25	0.28	9,674
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.67	0.59	10.5	18.5	0.03	0.13	1.31	1.44	0.12	0.45	0.57	—	3,729	3,729	0.19	0.12	1.43	3,770
2024	0.38	4.08	5.50	9.86	0.01	0.07	0.40	0.46	0.06	0.09	0.16	—	1,790	1,790	0.08	0.05	0.88	1,807
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.12	0.11	1.92	3.37	0.01	0.02	0.24	0.26	0.02	0.08	0.10	—	617	617	0.03	0.02	0.24	624
2024	0.07	0.74	1.00	1.80	< 0.005	0.01	0.07	0.08	0.01	0.02	0.03	—	296	296	0.01	0.01	0.14	299

### 3. Construction Emissions Details

#### 3.1. Demolition (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	0.51	12.7	18.7	0.03	0.23	—	0.23	0.22	—	0.22	—	3,529	3,529	0.14	0.03	—	3,541

Demolition	—	—	—	—	—	—	0.45	0.45	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	2.09	3.07	0.01	0.04	—	0.04	0.04	—	0.04	—	580	580	0.02	< 0.005	—	582
Demolition	—	—	—	—	—	—	0.07	0.07	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.38	0.56	< 0.005	0.01	—	0.01	0.01	—	0.01	—	96.0	96.0	< 0.005	< 0.005	—	96.4
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.10	1.67	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	264	264	0.01	0.01	1.13	268
Vendor	0.04	0.01	0.38	0.20	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	317	317	0.03	0.05	0.87	332
Hauling	0.03	< 0.005	0.27	0.15	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	214	214	0.02	0.03	0.45	226
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



Worker	0.02	0.02	0.02	0.22	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	40.4	40.4	< 0.005	< 0.005	0.08	41.0
Vendor	0.01	< 0.005	0.06	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	52.1	52.1	< 0.005	0.01	0.06	54.6
Hauling	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	35.2	35.2	< 0.005	0.01	0.03	37.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	6.69	6.69	< 0.005	< 0.005	0.01	6.78
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.63	8.63	< 0.005	< 0.005	0.01	9.03
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.84	5.84	< 0.005	< 0.005	0.01	6.13

### 3.3. Site Preparation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.68	0.68	15.7	30.0	0.05	0.10	—	0.10	0.10	—	0.10	—	5,530	5,530	0.22	0.04	—	5,549
Dust From Material Movement	—	—	—	—	—	—	5.66	5.66	—	2.69	2.69	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.06	1.29	2.46	< 0.005	0.01	—	0.01	0.01	—	0.01	—	455	455	0.02	< 0.005	—	456

Dust From Material Movement:	—	—	—	—	—	—	0.47	0.47	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.24	0.45	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	75.2	75.2	< 0.005	< 0.005	—	75.5
Dust From Material Movement:	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.10	1.67	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	264	264	0.01	0.01	1.13	268
Vendor	0.02	< 0.005	0.19	0.10	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	158	158	0.01	0.02	0.44	166
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	20.2	20.2	< 0.005	< 0.005	0.04	20.5
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.0	13.0	< 0.005	< 0.005	0.02	13.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	3.34	3.34	< 0.005	< 0.005	0.01	3.39
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.16	2.16	< 0.005	< 0.005	< 0.005	2.26

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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### 3.5. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e	
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82	0.82	19.9	36.2	0.06	0.18	—	0.18	0.18	—	0.18	—	6,715	6,715	0.27	0.05	—	6,738	
Dust From Material Movement	—	—	—	—	—	—	2.67	2.67	—	0.98	0.98	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.07	1.64	2.97	0.01	0.02	—	0.02	0.01	—	0.01	—	552	552	0.02	< 0.005	—	554	
Dust From Material Movement	—	—	—	—	—	—	0.22	0.22	—	0.08	0.08	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.30	0.54	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	91.4	91.4	< 0.005	< 0.005	—	91.7	

Dust From Material Movement:	—	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.11	1.85	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	294	294	0.01	0.01	1.26	298
Vendor	0.02	< 0.005	0.19	0.10	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	158	158	0.01	0.02	0.44	166
Hauling	0.37	0.06	3.43	1.91	0.02	0.03	0.20	0.23	0.03	0.07	0.10	—	2,716	2,716	0.31	0.43	5.65	2,857
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	22.4	22.4	< 0.005	< 0.005	0.04	22.8
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.0	13.0	< 0.005	< 0.005	0.02	13.6
Hauling	0.03	< 0.005	0.30	0.16	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	223	223	0.03	0.04	0.20	235
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	3.72	3.72	< 0.005	< 0.005	0.01	3.77
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.16	2.16	< 0.005	< 0.005	< 0.005	2.26
Hauling	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	37.0	37.0	< 0.005	0.01	0.03	38.8

### 3.7. Building Construction (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.87	20.0	31.4	0.05	0.25	—	0.25	0.23	—	0.23	—	5,110	5,110	0.21	0.04	—	5,128
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.87	20.0	31.4	0.05	0.25	—	0.25	0.23	—	0.23	—	5,110	5,110	0.21	0.04	—	5,128
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.20	4.61	7.24	0.01	0.06	—	0.06	0.05	—	0.05	—	1,180	1,180	0.05	0.01	—	1,184
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.84	1.32	< 0.005	0.01	—	0.01	0.01	—	0.01	—	195	195	0.01	< 0.005	—	196
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.69	0.63	0.60	10.6	0.00	0.00	0.09	0.09	0.00	0.00	0.00	—	1,675	1,675	0.07	0.06	7.18	1,700
Vendor	0.09	0.02	0.94	0.51	0.01	0.01	0.04	0.06	0.01	0.02	0.03	—	792	792	0.07	0.12	2.19	831
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.65	0.59	0.70	7.94	0.00	0.00	0.09	0.09	0.00	0.00	0.00	—	1,534	1,534	0.07	0.06	0.19	1,553
Vendor	0.09	0.02	0.98	0.51	0.01	0.01	0.04	0.06	0.01	0.02	0.03	—	793	793	0.07	0.12	0.06	829
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	0.16	1.94	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	359	359	0.02	0.01	0.72	364
Vendor	0.02	< 0.005	0.23	0.12	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	183	183	0.02	0.03	0.22	192
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.03	0.35	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	59.5	59.5	< 0.005	< 0.005	0.12	60.3
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	30.3	30.3	< 0.005	< 0.005	0.04	31.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.9. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.87	20.0	31.4	0.05	0.25	—	0.25	0.23	—	0.23	—	5,110	5,110	0.21	0.04	—	5,127
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

IE Distribution Center #14 (Construction) Detailed Report, 8/19/2022

Off-Road Equipment	0.91	0.87	20.0	31.4	0.05	0.25	—	0.25	0.23	—	0.23	—	5,110	5,110	0.21	0.04	—	5,127
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.18	4.14	6.51	0.01	0.05	—	0.05	0.05	—	0.05	—	1,060	1,060	0.04	0.01	—	1,064
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.76	1.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	175	175	0.01	< 0.005	—	176
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.65	0.60	0.55	9.64	0.00	0.00	0.09	0.09	0.00	0.00	0.00	—	1,641	1,641	0.07	0.06	6.56	1,666
Vendor	0.08	0.02	0.90	0.48	0.01	0.01	0.04	0.06	0.01	0.02	0.03	—	784	784	0.06	0.12	2.19	822
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.62	0.56	0.65	7.29	0.00	0.00	0.09	0.09	0.00	0.00	0.00	—	1,504	1,504	0.07	0.06	0.17	1,523
Vendor	0.08	0.02	0.94	0.49	0.01	0.01	0.04	0.06	0.01	0.02	0.03	—	784	784	0.06	0.12	0.06	821
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.14	1.59	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	316	316	0.01	0.01	0.59	321
Vendor	0.02	< 0.005	0.20	0.10	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	163	163	0.01	0.02	0.20	170

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.29	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	52.4	52.4	< 0.005	< 0.005	0.10	53.1	
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	26.9	26.9	< 0.005	< 0.005	0.03	28.2	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	

### 3.11. Paving (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	7.21	10.6	0.01	0.09	—	0.09	0.08	—	0.08	—	1,512	1,512	0.06	0.01	—	1,517
Paving	—	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	7.21	10.6	0.01	0.09	—	0.09	0.08	—	0.08	—	1,512	1,512	0.06	0.01	—	1,517
Paving	—	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.89	1.31	< 0.005	0.01	—	0.01	0.01	—	0.01	—	186	186	0.01	< 0.005	—	187
Paving	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



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Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.16	0.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	30.9	30.9	< 0.005	< 0.005	—	31.0	
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.09	0.08	0.07	1.27	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	216	216	0.01	0.01	0.86	219	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.08	0.07	0.09	0.96	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	198	198	0.01	0.01	0.02	200	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.01	0.01	0.01	0.12	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	24.7	24.7	< 0.005	< 0.005	0.05	25.1	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	4.10	4.10	< 0.005	< 0.005	0.01	4.15	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	

### 3.13. Architectural Coating (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	1.43	1.28	< 0.005	0.04	—	0.04	0.04	—	0.04	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	44.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	1.43	1.28	< 0.005	0.04	—	0.04	0.04	—	0.04	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	44.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.12	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.6	14.6	< 0.005	< 0.005	—	14.7
Architectural Coatings	—	3.69	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.42	2.42	< 0.005	< 0.005	—	2.43
Architectural Coatings	—	0.67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.11	1.95	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	331	331	0.01	0.01	1.32	336
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.11	0.13	1.47	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	303	303	0.01	0.01	0.03	307
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	25.3	25.3	< 0.005	< 0.005	0.05	25.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	4.19	4.19	< 0.005	< 0.005	0.01	4.25
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

## 4. Operations Emissions Details

### 4.10. Soil Carbon Accumulation By Vegetation Type

#### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 5. Activity Data

### 5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	5/2/2023	7/24/2023	5.00	60.0	—
Site Preparation	Site Preparation	7/25/2023	9/4/2023	5.00	30.0	—
Grading	Grading	7/25/2023	9/4/2023	5.00	30.0	—
Building Construction	Building Construction	9/5/2023	4/15/2024	5.00	160	—
Paving	Paving	2/13/2024	4/15/2024	5.00	45.0	—
Architectural Coating	Architectural Coating	3/5/2024	4/15/2024	5.00	30.0	—

### 5.2. Off-Road Equipment

#### 5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Interim	2.00	8.00	367	0.40

Demolition	Excavators	Diesel	Tier 4 Interim	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Interim	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Interim	3.00	8.00	367	0.40
Grading	Graders	Diesel	Tier 4 Interim	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Interim	2.00	8.00	36.0	0.38
Grading	Scrapers	Diesel	Tier 4 Interim	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 4 Interim	5.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Tier 4 Interim	2.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Interim	2.00	8.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Interim	2.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Tier 4 Interim	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Interim	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Interim	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Interim	1.00	8.00	37.0	0.48
Site Preparation	Crawler Tractors	Diesel	Tier 4 Interim	4.00	8.00	87.0	0.43
Grading	Crawler Tractors	Diesel	Tier 4 Interim	2.00	8.00	87.0	0.43
Building Construction	Crawler Tractors	Diesel	Tier 4 Interim	5.00	8.00	87.0	0.43
Demolition	Generator Sets	Diesel	Tier 4 Interim	1.00	8.00	14.0	0.74

## 5.3. Construction Vehicles

### 5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	18.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	10.0	10.2	HHDT,MHDT

Demolition	Hauling	3.00	20.0	HHDT
Demolition	Onsite truck	0.00	0.00	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	18.0	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	5.00	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	0.00	0.00	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	5.00	10.2	HHDT,MHDT
Grading	Hauling	38.0	20.0	HHDT
Grading	Onsite truck	0.00	0.00	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	114	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	25.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	0.00	0.00	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	0.00	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	0.00	0.00	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	23.0	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	0.00	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	0.00	0.00	HHDT



## 5.4. Vehicles

### 5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

## 5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	415,727	138,576	13,629

## 5.6. Dust Mitigation

### 5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	1,922	—
Site Preparation	0.00	0.00	105	0.00	—
Grading	0.00	9,000	120	0.00	—
Paving	0.00	0.00	0.00	0.00	5.21

### 5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%
Water Demolished Area	2	36%	36%

## 5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
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Unrefrigerated Warehouse-No Rail	0.00	0%
Refrigerated Warehouse-No Rail	0.00	0%
Parking Lot	1.53	100%
Other Asphalt Surfaces	3.68	100%

## 5.8. Construction Electricity Consumption and Emissions Factors

### kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	532	0.03	< 0.005
2024	0.00	532	0.03	< 0.005

## 5.18. Vegetation

### 5.18.1. Land Use Change

#### 5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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### 5.18.1. Biomass Cover Type

#### 5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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### 5.18.2. Sequestration

#### 5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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## 6. Climate Risk Detailed Report

### 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.1	annual days of extreme heat
Extreme Precipitation	5.30	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about  $\frac{3}{4}$  an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

### 6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A

Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

### 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

### 6.4. Climate Risk Reduction Measures

## 7. Health and Equity Details

### 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
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Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	95.7
AQ-DPM	96.6
Drinking Water	93.3
Lead Risk Housing	8.61
Pesticides	0.00
Toxic Releases	78.9
Traffic	89.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	30.9
Haz Waste Facilities/Generators	78.8
Impaired Water Bodies	0.00
Solid Waste	70.4
Sensitive Population	—
Asthma	47.3
Cardio-vascular	67.3
Low Birth Weights	57.1
Socioeconomic Factor Indicators	—
Education	40.5
Housing	32.3
Linguistic	18.1
Poverty	23.9
Unemployment	53.9

## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	76.78686
Employed	63.51854228
Education	—
Bachelor's or higher	44.59129988
High school enrollment	3.977928911
Preschool enrollment	15.60374695
Transportation	—
Auto Access	88.68215065
Active commuting	10.11163865
Social	—
2-parent households	11.86962659
Voting	50.91749006
Neighborhood	—
Alcohol availability	69.3314513
Park access	61.63223406
Retail density	69.31861927
Supermarket access	2.399589375
Tree canopy	29.69331451
Housing	—
Homeownership	78.81432054
Housing habitability	80.20017965
Low-inc homeowner severe housing cost burden	88.74631079
Low-inc renter severe housing cost burden	37.86731682
Uncrowded housing	60.77248813
Health Outcomes	—

Insured adults	67.2783267
Arthritis	74.6
Asthma ER Admissions	54.3
High Blood Pressure	79.9
Cancer (excluding skin)	68.9
Asthma	49.0
Coronary Heart Disease	85.5
Chronic Obstructive Pulmonary Disease	74.0
Diagnosed Diabetes	64.3
Life Expectancy at Birth	52.5
Cognitively Disabled	87.2
Physically Disabled	77.4
Heart Attack ER Admissions	10.4
Mental Health Not Good	50.5
Chronic Kidney Disease	79.8
Obesity	43.5
Pedestrian Injuries	99.0
Physical Health Not Good	58.2
Stroke	80.6
Health Risk Behaviors	—
Binge Drinking	19.3
Current Smoker	53.5
No Leisure Time for Physical Activity	61.3
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	32.5

Elderly	84.2
English Speaking	91.4
Foreign-born	35.9
Outdoor Workers	45.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	76.5
Traffic Density	89.2
Traffic Access	46.3
Other Indices	—
Hardship	44.0
Other Decision Support	—
2016 Voting	74.5

### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	65.0
Healthy Places Index Score for Project Location (b)	42.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

### 7.4. Health & Equity Measures

No Health & Equity Measures selected.

### 7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.



## 8. User Changes to Default Data

Screen	Justification
Land Use	Total Project Site is 13.08 acres
Construction: Construction Phases	Construction anticipated to end in April 2024
Construction: Off-Road Equipment	Construction equipment based on equipment needed for other industrial projects within the area
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Demolition, Site Preparation, Grading, and Building Construction
Construction: Architectural Coatings	Rule 1113

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**APPENDIX 5.2:**

**CALEEMOD PROJECT OPERATIONS EMISSIONS MODEL OUTPUTS**

# IE Distribution Center #14 (Passenger Car Operations) Detailed Report

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## 8. User Changes to Default Data



# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	IE Distribution Center #14 (Passenger Car Operations)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	20.8
Location	34.06334566920109, -117.53410603073728
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5288
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	243	1000sqft	7.08	243,303	65,274	0.00	—	—
Refrigerated Warehouse-No Rail	27.0	1000sqft	0.79	27,034	7,253	0.00	—	—

Parking Lot	299	Space	1.53	0.00	0.00	0.00	—	—
Other Asphalt Surfaces	161	1000sqft	3.68	0.00	0.00	0.00	—	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

## 2. Emissions Summary

### 2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.75	9.84	3.77	29.9	0.05	0.25	1.18	1.43	0.25	0.20	0.45	257	8,875	9,132	26.6	0.41	6,525	16,442
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.60	7.85	3.76	15.0	0.05	0.23	1.18	1.41	0.23	0.20	0.43	257	8,562	8,818	26.6	0.41	6,512	16,117
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.68	8.85	3.60	20.1	0.04	0.24	0.86	1.10	0.24	0.15	0.39	257	7,811	8,068	26.6	0.39	6,516	15,364
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.49	1.61	0.66	3.67	0.01	0.04	0.16	0.20	0.04	0.03	0.07	42.5	1,293	1,336	4.40	0.06	1,079	2,544

### 2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

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Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.35	1.23	0.80	15.7	0.03	0.01	1.18	1.19	0.01	0.20	0.21	—	3,299	3,299	0.11	0.08	13.1	3,338
Area	2.09	8.45	0.10	11.8	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.3	48.3	< 0.005	< 0.005	—	49.8
Energy	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	5,116	5,116	0.46	0.03	—	5,135
Water	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Waste	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Total	3.75	9.84	3.77	29.9	0.05	0.25	1.18	1.43	0.25	0.20	0.45	257	8,875	9,132	26.6	0.41	6,525	16,442
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.28	1.16	0.89	12.6	0.03	0.01	1.18	1.19	0.01	0.20	0.21	—	3,033	3,033	0.12	0.09	0.34	3,062
Area	—	6.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	5,116	5,116	0.46	0.03	—	5,135
Water	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Waste	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Total	1.60	7.85	3.76	15.0	0.05	0.23	1.18	1.41	0.23	0.20	0.43	257	8,562	8,818	26.6	0.41	6,512	16,117
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.93	0.85	0.67	9.65	0.02	0.01	0.86	0.87	0.01	0.15	0.16	—	2,250	2,250	0.08	0.06	4.12	2,275
Area	1.43	7.84	0.07	8.05	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.1	33.1	< 0.005	< 0.005	—	34.1
Energy	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	5,116	5,116	0.46	0.03	—	5,135
Water	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Waste	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512

Total	2.68	8.85	3.60	20.1	0.04	0.24	0.86	1.10	0.24	0.15	0.39	257	7,811	8,068	26.6	0.39	6,516	15,364
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.17	0.15	0.12	1.76	< 0.005	< 0.005	0.16	0.16	< 0.005	0.03	0.03	—	373	373	0.01	0.01	0.68	377
Area	0.26	1.43	0.01	1.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.48	5.48	< 0.005	< 0.005	—	5.64
Energy	0.06	0.03	0.52	0.44	< 0.005	0.04	—	0.04	0.04	—	0.04	—	847	847	0.08	< 0.005	—	850
Water	—	—	—	—	—	—	—	—	—	—	—	19.8	68.3	88.1	2.04	0.05	—	154
Waste	—	—	—	—	—	—	—	—	—	—	—	22.7	0.00	22.7	2.27	0.00	—	79.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,078	1,078
Total	0.49	1.61	0.66	3.67	0.01	0.04	0.16	0.20	0.04	0.03	0.07	42.5	1,293	1,336	4.40	0.06	1,079	2,544

## 4. Operations Emissions Details

### 4.1. Mobile Emissions by Land Use

#### 4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.18	1.08	0.70	13.8	0.03	0.01	0.13	0.15	0.01	0.04	0.05	—	2,892	2,892	0.10	0.07	11.4	2,926
Refrigerated Warehouse-No Rail	0.17	0.15	0.10	1.94	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	407	407	0.01	0.01	1.61	412

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Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.35	1.23	0.80	15.7	0.03	0.01	0.15	0.17	0.01	0.05	0.06	—	3,299	3,299	0.11	0.08	13.1	3,338	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.13	1.02	0.78	11.1	0.03	0.01	0.13	0.15	0.01	0.04	0.05	—	2,659	2,659	0.10	0.07	0.30	2,684	
Refrigerated Warehouse-No Rail	0.16	0.14	0.11	1.56	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	374	374	0.01	0.01	0.04	378	
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.28	1.16	0.89	12.6	0.03	0.01	0.15	0.17	0.01	0.05	0.06	—	3,033	3,033	0.12	0.09	0.34	3,062	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.15	0.14	0.11	1.54	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	327	327	0.01	0.01	0.60	330	
Refrigerated Warehouse-No Rail	0.02	0.02	0.02	0.22	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	45.9	45.9	< 0.005	< 0.005	0.08	46.4	

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.17	0.15	0.12	1.76	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	373	373	0.01	0.01	0.68	377	

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,073	1,073	0.10	0.01	—	1,080
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	565	565	0.05	0.01	—	569
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	55.8	55.8	0.01	< 0.005	—	56.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,695	1,695	0.16	0.02	—	1,704
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,073	1,073	0.10	0.01	—	1,080
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	565	565	0.05	0.01	—	569
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	55.8	55.8	0.01	< 0.005	—	56.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,695	1,695	0.16	0.02	—	1,704
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	178	178	0.02	< 0.005	—	179
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	93.6	93.6	0.01	< 0.005	—	94.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	9.23	9.23	< 0.005	< 0.005	—	9.29
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	281	281	0.03	< 0.005	—	282

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

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Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.27	0.14	2.48	2.09	0.01	0.19	—	0.19	0.19	—	0.19	—	2,965	2,965	0.26	0.01	—	2,973
Refrigerated Warehouse-No Rail	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.04	< 0.005	—	458
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	3,421	3,421	0.30	0.01	—	3,431
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.27	0.14	2.48	2.09	0.01	0.19	—	0.19	0.19	—	0.19	—	2,965	2,965	0.26	0.01	—	2,973
Refrigerated Warehouse-No Rail	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.04	< 0.005	—	458
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00



Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	3,421	3,421	0.30	0.01	—	3,431
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.02	0.45	0.38	< 0.005	0.03	—	0.03	0.03	—	0.03	—	491	491	0.04	< 0.005	—	492
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	75.6	75.6	0.01	< 0.005	—	75.8
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.06	0.03	0.52	0.44	< 0.005	0.04	—	0.04	0.04	—	0.04	—	566	566	0.05	< 0.005	—	568

### 4.3. Area Emissions by Source

#### 4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.80	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	0.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.09	1.93	0.10	11.8	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.3	48.3	< 0.005	< 0.005	—	49.8
Total	2.09	8.45	0.10	11.8	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.3	48.3	< 0.005	< 0.005	—	49.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.80	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	6.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.26	0.24	0.01	1.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.48	5.48	< 0.005	< 0.005	—	5.64
Total	0.26	1.43	0.01	1.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.48	5.48	< 0.005	< 0.005	—	5.64

#### 4.4. Water Emissions by Land Use

##### 4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

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Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	108	371	479	11.1	0.27	—	836
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	12.0	41.2	53.2	1.23	0.03	—	92.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	108	371	479	11.1	0.27	—	836
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	12.0	41.2	53.2	1.23	0.03	—	92.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	17.8	61.4	79.3	1.84	0.04	—	138
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	1.98	6.83	8.81	0.20	< 0.005	—	15.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	19.8	68.3	88.1	2.04	0.05	—	154

#### 4.5. Waste Emissions by Land Use

##### 4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	123	0.00	123	12.3	0.00	—	431
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	13.7	0.00	13.7	1.37	0.00	—	47.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	123	0.00	123	12.3	0.00	—	431
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	13.7	0.00	13.7	1.37	0.00	—	47.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	20.4	0.00	20.4	2.04	0.00	—	71.4
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	2.27	0.00	2.27	0.23	0.00	—	7.93
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	22.7	0.00	22.7	2.27	0.00	—	79.3

#### 4.6. Refrigerant Emissions by Land Use

##### 4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,484	6,484
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.6	27.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,484	6,484
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.6	27.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,074	1,074
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.56	4.56
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,078	1,078

### 4.7. Offroad Emissions By Equipment Type

#### 4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.8. Stationary Emissions By Equipment Type

##### 4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.9. User Defined Emissions By Equipment Type



### 4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.10. Soil Carbon Accumulation By Vegetation Type

#### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 5. Activity Data

### 5.9. Operational Mobile Sources

#### 5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	267	23.5	9.37	71,399	3,878	340	136	1,035,864
Refrigerated Warehouse-No Rail	37.6	3.18	1.27	10,041	546	46.2	18.5	145,674
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## 5.10. Operational Area Sources

### 5.10.1. Hearths

#### 5.10.1.1. Unmitigated

### 5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	415,727	138,576	13,629

### 5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

## 5.11. Operational Energy Consumption

### 5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBtu/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	1,123,744	349	0.0330	0.0040	4,625,355
Refrigerated Warehouse-No Rail	591,921	349	0.0330	0.0040	712,190
Parking Lot	58,383	349	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	349	0.0330	0.0040	0.00

## 5.12. Operational Water and Wastewater Consumption

### 5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	56,263,819	1,048,248
Refrigerated Warehouse-No Rail	6,251,613	116,472
Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00

## 5.13. Operational Waste Generation

### 5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	229	0.00
Refrigerated Warehouse-No Rail	25.4	0.00
Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00

## 5.14. Operational Refrigeration and Air Conditioning Equipment

## 5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Unrefrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0
Refrigerated Warehouse-No Rail	Cold storage	User Defined	150	7.50	7.50	7.50	25.0

## 5.15. Operational Off-Road Equipment

## 5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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## 5.16. Stationary Sources

## 5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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## 5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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## 5.17. User Defined

Equipment Type	Fuel Type
—	—

## 5.18. Vegetation

## 5.18.1. Land Use Change

## 5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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## 5.18.1. Biomass Cover Type

## 5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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## 5.18.2. Sequestration

## 5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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## 6. Climate Risk Detailed Report

### 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.1	annual days of extreme heat
Extreme Precipitation	5.30	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about  $\frac{3}{4}$  an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

## 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A



Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

## 6.4. Climate Risk Reduction Measures

# 7. Health and Equity Details

## 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	95.7
AQ-DPM	96.6
Drinking Water	93.3
Lead Risk Housing	8.61
Pesticides	0.00
Toxic Releases	78.9
Traffic	89.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	30.9

Haz Waste Facilities/Generators	78.8
Impaired Water Bodies	0.00
Solid Waste	70.4
Sensitive Population	—
Asthma	47.3
Cardio-vascular	67.3
Low Birth Weights	57.1
Socioeconomic Factor Indicators	—
Education	40.5
Housing	32.3
Linguistic	18.1
Poverty	23.9
Unemployment	53.9

## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	76.78686
Employed	63.51854228
Education	—
Bachelor's or higher	44.59129988
High school enrollment	3.977928911
Preschool enrollment	15.60374695
Transportation	—
Auto Access	88.68215065
Active commuting	10.11163865

Social	—
2-parent households	11.86962659
Voting	50.91749006
Neighborhood	—
Alcohol availability	69.3314513
Park access	61.63223406
Retail density	69.31861927
Supermarket access	2.399589375
Tree canopy	29.69331451
Housing	—
Homeownership	78.81432054
Housing habitability	80.20017965
Low-inc homeowner severe housing cost burden	88.74631079
Low-inc renter severe housing cost burden	37.86731682
Uncrowded housing	60.77248813
Health Outcomes	—
Insured adults	67.2783267
Arthritis	74.6
Asthma ER Admissions	54.3
High Blood Pressure	79.9
Cancer (excluding skin)	68.9
Asthma	49.0
Coronary Heart Disease	85.5
Chronic Obstructive Pulmonary Disease	74.0
Diagnosed Diabetes	64.3
Life Expectancy at Birth	52.5
Cognitively Disabled	87.2

Physically Disabled	77.4
Heart Attack ER Admissions	10.4
Mental Health Not Good	50.5
Chronic Kidney Disease	79.8
Obesity	43.5
Pedestrian Injuries	99.0
Physical Health Not Good	58.2
Stroke	80.6
Health Risk Behaviors	—
Binge Drinking	19.3
Current Smoker	53.5
No Leisure Time for Physical Activity	61.3
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	32.5
Elderly	84.2
English Speaking	91.4
Foreign-born	35.9
Outdoor Workers	45.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	76.5
Traffic Density	89.2
Traffic Access	46.3
Other Indices	—
Hardship	44.0
Other Decision Support	—

2016 Voting	74.5
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### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	65.0
Healthy Places Index Score for Project Location (b)	42.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

### 7.4. Health & Equity Measures

No Health & Equity Measures selected.

### 7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

## 8. User Changes to Default Data

Screen	Justification
Land Use	Total Project Area is 13.08 acres
Operations: Vehicle Data	Trip rates based on information provided in ITE 11th Edition
Operations: Fleet Mix	Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, & MCY)
Operations: Refrigerants	As of 1 January 2022, new commercial refrigeration equipment may not use refrigerants with a GWP of 150 or greater.

# IE Distribution Center #14 (Truck Operations) Detailed Report

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5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

## 7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

## 8. User Changes to Default Data

# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	IE Distribution Center #14 (Truck Operations)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	20.8
Location	34.06334566920109, -117.53410603073728
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5288
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	243	1000sqft	7.08	243,303	65,274	0.00	—	—
Refrigerated Warehouse-No Rail	27.0	1000sqft	0.79	27,034	7,253	0.00	—	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

## 2. Emissions Summary

### 2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.54	8.84	14.1	20.7	0.10	0.38	1.51	1.88	0.38	0.36	0.73	257	15,122	15,379	27.3	1.76	6,540	23,126
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.44	6.90	14.5	8.94	0.10	0.36	1.51	1.87	0.36	0.36	0.71	257	15,077	15,333	27.3	1.76	6,512	23,052
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.57	8.15	11.5	15.2	0.08	0.34	1.10	1.44	0.33	0.26	0.59	257	12,532	12,789	27.1	1.38	6,521	20,397
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.47	1.49	2.10	2.78	0.01	0.06	0.20	0.26	0.06	0.05	0.11	42.5	2,075	2,117	4.48	0.23	1,080	3,377

### 2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

IE Distribution Center #14 (Truck Operations) Detailed Report, 8/18/2022

Mobile	1.14	0.28	11.1	6.51	0.09	0.15	1.51	1.65	0.14	0.36	0.49	—	9,602	9,602	0.83	1.43	28.2	10,078
Area	2.09	8.40	0.10	11.8	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.3	48.3	< 0.005	< 0.005	—	49.8
Energy	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	5,060	5,060	0.46	0.03	—	5,079
Water	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Waste	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Total	3.54	8.84	14.1	20.7	0.10	0.38	1.51	1.88	0.38	0.36	0.73	257	15,122	15,379	27.3	1.76	6,540	23,126
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.13	0.27	11.6	6.53	0.09	0.15	1.51	1.65	0.14	0.36	0.49	—	9,604	9,604	0.83	1.44	0.73	10,054
Area	—	6.47	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	5,060	5,060	0.46	0.03	—	5,079
Water	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Waste	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Total	1.44	6.90	14.5	8.94	0.10	0.36	1.51	1.87	0.36	0.36	0.71	257	15,077	15,333	27.3	1.76	6,512	23,052
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.83	0.20	8.57	4.76	0.06	0.11	1.10	1.21	0.10	0.26	0.36	—	7,027	7,027	0.60	1.05	8.91	7,364
Area	1.43	7.79	0.07	8.05	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.1	33.1	< 0.005	< 0.005	—	34.1
Energy	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	5,060	5,060	0.46	0.03	—	5,079
Water	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Waste	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Total	2.57	8.15	11.5	15.2	0.08	0.34	1.10	1.44	0.33	0.26	0.59	257	12,532	12,789	27.1	1.38	6,521	20,397
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.15	0.04	1.56	0.87	0.01	0.02	0.20	0.22	0.02	0.05	0.07	—	1,163	1,163	0.10	0.17	1.47	1,219
Area	0.26	1.42	0.01	1.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.48	5.48	< 0.005	< 0.005	—	5.64

Energy	0.06	0.03	0.52	0.44	< 0.005	0.04	—	0.04	0.04	—	0.04	—	838	838	0.08	< 0.005	—	841
Water	—	—	—	—	—	—	—	—	—	—	—	19.8	68.3	88.1	2.04	0.05	—	154
Waste	—	—	—	—	—	—	—	—	—	—	—	22.7	0.00	22.7	2.27	0.00	—	79.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,078	1,078
Total	0.47	1.49	2.10	2.78	0.01	0.06	0.20	0.26	0.06	0.05	0.11	42.5	2,075	2,117	4.48	0.23	1,080	3,377

## 4. Operations Emissions Details

### 4.1. Mobile Emissions by Land Use

#### 4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.00	0.24	9.79	5.66	0.08	0.13	0.65	0.77	0.12	0.21	0.33	—	8,521	8,521	0.73	1.28	24.4	8,945
Refrigerated Warehouse-No Rail	0.14	0.05	1.32	0.85	0.01	0.02	0.09	0.11	0.02	0.03	0.05	—	1,080	1,080	0.09	0.15	3.82	1,133
Total	1.14	0.28	11.1	6.51	0.09	0.15	0.74	0.88	0.14	0.24	0.38	—	9,602	9,602	0.83	1.43	28.2	10,078
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse Rail	0.99	0.23	10.2	5.68	0.08	0.13	0.65	0.77	0.12	0.21	0.33	—	8,523	8,523	0.73	1.28	0.63	8,924
Refrigerated Warehouse-No Rail	0.14	0.04	1.38	0.85	0.01	0.02	0.09	0.11	0.02	0.03	0.05	—	1,081	1,081	0.09	0.16	0.10	1,129
Total	1.13	0.27	11.6	6.53	0.09	0.15	0.74	0.88	0.14	0.24	0.38	—	9,604	9,604	0.83	1.44	0.73	10,054
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.13	0.03	1.38	0.76	0.01	0.02	0.09	0.10	0.02	0.03	0.04	—	1,033	1,033	0.09	0.16	1.28	1,082
Refrigerated Warehouse-No Rail	0.02	0.01	0.19	0.11	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	131	131	0.01	0.02	0.20	137
Total	0.15	0.04	1.56	0.87	0.01	0.02	0.10	0.12	0.02	0.03	0.05	—	1,163	1,163	0.10	0.17	1.47	1,219

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No	—	—	—	—	—	—	—	—	—	—	—	—	1,073	1,073	0.10	0.01	—	1,080
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	565	565	0.05	0.01	—	569
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,639	1,639	0.16	0.02	—	1,648
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,073	1,073	0.10	0.01	—	1,080
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	565	565	0.05	0.01	—	569
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,639	1,639	0.16	0.02	—	1,648
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	178	178	0.02	< 0.005	—	179
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	93.6	93.6	0.01	< 0.005	—	94.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	271	271	0.03	< 0.005	—	273



4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.27	0.14	2.48	2.09	0.01	0.19	—	0.19	0.19	—	0.19	—	2,965	2,965	0.26	0.01	—	2,973
Refrigerated Warehouse-No Rail	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.04	< 0.005	—	458
Total	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	3,421	3,421	0.30	0.01	—	3,431
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.27	0.14	2.48	2.09	0.01	0.19	—	0.19	0.19	—	0.19	—	2,965	2,965	0.26	0.01	—	2,973
Refrigerated Warehouse-No Rail	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.04	< 0.005	—	458
Total	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	3,421	3,421	0.30	0.01	—	3,431
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No	0.05	0.02	0.45	0.38	< 0.005	0.03	—	0.03	0.03	—	0.03	—	491	491	0.04	< 0.005	—	492
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	75.6	75.6	0.01	< 0.005	—	75.8
Total	0.06	0.03	0.52	0.44	< 0.005	0.04	—	0.04	0.04	—	0.04	—	566	566	0.05	< 0.005	—	568

### 4.3. Area Emissions by Source

#### 4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.79	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.69	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.09	1.93	0.10	11.8	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.3	48.3	< 0.005	< 0.005	—	49.8
Total	2.09	8.40	0.10	11.8	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.3	48.3	< 0.005	< 0.005	—	49.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer Products	—	5.79	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.69	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	6.47	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.26	0.24	0.01	1.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.48	5.48	< 0.005	< 0.005	—	5.64
Total	0.26	1.42	0.01	1.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.48	5.48	< 0.005	< 0.005	—	5.64

#### 4.4. Water Emissions by Land Use

##### 4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	108	371	479	11.1	0.27	—	836

Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	12.0	41.2	53.2	1.23	0.03	—	92.9
Total	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	108	371	479	11.1	0.27	—	836
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	12.0	41.2	53.2	1.23	0.03	—	92.9
Total	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	17.8	61.4	79.3	1.84	0.04	—	138
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	1.98	6.83	8.81	0.20	< 0.005	—	15.4
Total	—	—	—	—	—	—	—	—	—	—	—	19.8	68.3	88.1	2.04	0.05	—	154

#### 4.5. Waste Emissions by Land Use

##### 4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	123	0.00	123	12.3	0.00	—	431
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	13.7	0.00	13.7	1.37	0.00	—	47.9
Total	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	123	0.00	123	12.3	0.00	—	431
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	13.7	0.00	13.7	1.37	0.00	—	47.9
Total	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	20.4	0.00	20.4	2.04	0.00	—	71.4

Refrigerated	—	—	—	—	—	—	—	—	—	—	—	2.27	0.00	2.27	0.23	0.00	—	7.93
Total	—	—	—	—	—	—	—	—	—	—	—	22.7	0.00	22.7	2.27	0.00	—	79.3

#### 4.6. Refrigerant Emissions by Land Use

##### 4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,484	6,484
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.6	27.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,484	6,484

Refrigerated Warehouse-No	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.6	27.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,074	1,074
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.56	4.56
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,078	1,078

### 4.7. Offroad Emissions By Equipment Type

#### 4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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#### 4.8. Stationary Emissions By Equipment Type

##### 4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.9. User Defined Emissions By Equipment Type

##### 4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.10. Soil Carbon Accumulation By Vegetation Type

##### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

##### 4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 5. Activity Data

### 5.9. Operational Mobile Sources

#### 5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	145	12.7	5.08	38,611	2,893	254	102	772,662
Refrigerated Warehouse-No Rail	21.8	1.84	0.74	5,813	413	34.9	14.0	110,224

### 5.10. Operational Area Sources

#### 5.10.1. Hearths

## 5.10.1.1. Unmitigated

## 5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	405,506	135,169	—

## 5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

## 5.11. Operational Energy Consumption

## 5.11.1. Unmitigated

## Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	1,123,744	349	0.0330	0.0040	4,625,355
Refrigerated Warehouse-No Rail	591,921	349	0.0330	0.0040	712,190

## 5.12. Operational Water and Wastewater Consumption

## 5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	56,263,819	1,048,248
Refrigerated Warehouse-No Rail	6,251,613	116,472

## 5.13. Operational Waste Generation

### 5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	229	0.00
Refrigerated Warehouse-No Rail	25.4	0.00

## 5.14. Operational Refrigeration and Air Conditioning Equipment

### 5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Unrefrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0
Refrigerated Warehouse-No Rail	Cold storage	User Defined	150	7.50	7.50	7.50	25.0

## 5.15. Operational Off-Road Equipment

### 5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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## 5.16. Stationary Sources

### 5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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### 5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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### 5.17. User Defined

Equipment Type	Fuel Type
—	—

### 5.18. Vegetation

#### 5.18.1. Land Use Change

##### 5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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#### 5.18.1. Biomass Cover Type

##### 5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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#### 5.18.2. Sequestration

##### 5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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## 6. Climate Risk Detailed Report

### 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.1	annual days of extreme heat
Extreme Precipitation	5.30	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

### 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

### 6.4. Climate Risk Reduction Measures

## 7. Health and Equity Details

### 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	95.7
AQ-DPM	96.6



Drinking Water	93.3
Lead Risk Housing	8.61
Pesticides	0.00
Toxic Releases	78.9
Traffic	89.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	30.9
Haz Waste Facilities/Generators	78.8
Impaired Water Bodies	0.00
Solid Waste	70.4
Sensitive Population	—
Asthma	47.3
Cardio-vascular	67.3
Low Birth Weights	57.1
Socioeconomic Factor Indicators	—
Education	40.5
Housing	32.3
Linguistic	18.1
Poverty	23.9
Unemployment	53.9

## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	76.78686

Employed	63.51854228
Education	—
Bachelor's or higher	44.59129988
High school enrollment	3.977928911
Preschool enrollment	15.60374695
Transportation	—
Auto Access	88.68215065
Active commuting	10.11163865
Social	—
2-parent households	11.86962659
Voting	50.91749006
Neighborhood	—
Alcohol availability	69.3314513
Park access	61.63223406
Retail density	69.31861927
Supermarket access	2.399589375
Tree canopy	29.69331451
Housing	—
Homeownership	78.81432054
Housing habitability	80.20017965
Low-inc homeowner severe housing cost burden	88.74631079
Low-inc renter severe housing cost burden	37.86731682
Uncrowded housing	60.77248813
Health Outcomes	—
Insured adults	67.2783267
Arthritis	74.6
Asthma ER Admissions	54.3

High Blood Pressure	79.9
Cancer (excluding skin)	68.9
Asthma	49.0
Coronary Heart Disease	85.5
Chronic Obstructive Pulmonary Disease	74.0
Diagnosed Diabetes	64.3
Life Expectancy at Birth	52.5
Cognitively Disabled	87.2
Physically Disabled	77.4
Heart Attack ER Admissions	10.4
Mental Health Not Good	50.5
Chronic Kidney Disease	79.8
Obesity	43.5
Pedestrian Injuries	99.0
Physical Health Not Good	58.2
Stroke	80.6
Health Risk Behaviors	—
Binge Drinking	19.3
Current Smoker	53.5
No Leisure Time for Physical Activity	61.3
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	32.5
Elderly	84.2
English Speaking	91.4
Foreign-born	35.9

Outdoor Workers	45.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	76.5
Traffic Density	89.2
Traffic Access	46.3
Other Indices	—
Hardship	44.0
Other Decision Support	—
2016 Voting	74.5

### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	65.0
Healthy Places Index Score for Project Location (b)	42.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

### 7.4. Health & Equity Measures

No Health & Equity Measures selected.

### 7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

## 8. User Changes to Default Data

Screen	Justification
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Land Use	Total Project Area (without Parking and Other Asphalt Surfaces) is 7.87 acres
Operations: Vehicle Data	Trip rates based on information provided in ITE 11th Edition
Operations: Fleet Mix	Truck Mix based on SCAQMD recommended truck mix
Operations: Refrigerants	As of 1 January 2022, new commercial refrigeration equipment may not use refrigerants with a GWP of 150 or greater.

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**APPENDIX 5.3:**

**EMFAC2021**

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: Sub-Area

Region: San Bernardino (SC)

Calendar Year: 2023

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/year for CVMT and EVMT, trips/year for Trips, kWh/year for Energy Consumption, tons/year for Emissions, 1000 gallons/year for Fuel Consumption

Region	CalYr	VehClass	MdYr	Speed	Fuel	Population	VMT	Fuel_Consumption	Fuel_Consumption	Total Fuel	VMT	Total VMT	Miles per Gallon	Vehicle Class
San Bernardino (SC)	2023	HHDT	Aggregate	Aggregate	Gasoline	7.139920774	72989.87996	20.21856385	20218.56385	99151757.36	72989.87996	589074824.8	5.94	HHDT
San Bernardino (SC)	2023	HHDT	Aggregate	Aggregate	Diesel	13684.27912	540336552.4	91207.74228	91207742.28					
San Bernardino (SC)	2023	HHDT	Aggregate	Aggregate	Electricity	11.071794	215446.3538	0	0					
San Bernardino (SC)	2023	HHDT	Aggregate	Aggregate	Natural Gas	2370.144029	48449836.15	7923.79652	7923796.52					
San Bernardino (SC)	2023	LDA	Aggregate	Aggregate	Gasoline	461483.7292	7017524717	240236.635	240236635	244016564.2	7017524717	7487517958	30.68	LDA
San Bernardino (SC)	2023	LDA	Aggregate	Aggregate	Diesel	1109.597168	14054225.57	328.8623383	328862.3383					
San Bernardino (SC)	2023	LDA	Aggregate	Aggregate	Electricity	15706.1209	253061679.4	0	0					
San Bernardino (SC)	2023	LDA	Aggregate	Aggregate	Plug-in Hybrid	11324.38067	202877335.8	3451.066904	3451066.904					
San Bernardino (SC)	2023	LDT1	Aggregate	Aggregate	Gasoline	41702.74967	497957156.2	20670.57095	20670570.95	20682315.81	497957156.2	499223706.1	24.14	LDT1
San Bernardino (SC)	2023	LDT1	Aggregate	Aggregate	Diesel	11.94633759	62720.48759	2.576524841	2576.524841					
San Bernardino (SC)	2023	LDT1	Aggregate	Aggregate	Electricity	40.25061846	615040.0246	0	0					
San Bernardino (SC)	2023	LDT1	Aggregate	Aggregate	Plug-in Hybrid	32.95928492	588789.4236	9.168334976	9168.334976					
San Bernardino (SC)	2023	LDT2	Aggregate	Aggregate	Gasoline	187695.2776	2666362554	113026.4187	113026418.7	113612136.3	2666362554	2706014469	23.82	LDT2
San Bernardino (SC)	2023	LDT2	Aggregate	Aggregate	Diesel	481.5963709	7444176.325	228.9034375	228903.4375					
San Bernardino (SC)	2023	LDT2	Aggregate	Aggregate	Electricity	809.1431596	10220716.39	0	0					
San Bernardino (SC)	2023	LDT2	Aggregate	Aggregate	Plug-in Hybrid	1266.994818	21987022.61	356.8141273	356814.1273					
San Bernardino (SC)	2023	LHDT1	Aggregate	Aggregate	Gasoline	17369.10468	208190922.4	15725.14829	15725148.29	22649955.03	208190922.4	350031821.2	15.45	LHDT1
San Bernardino (SC)	2023	LHDT1	Aggregate	Aggregate	Diesel	11340.4221	141840898.9	6924.806743	6924806.743					
San Bernardino (SC)	2023	LHDT2	Aggregate	Aggregate	Gasoline	2940.213764	34218739.32	2893.121173	2893121.173	6421373.81	34218739.32	94438257.25	14.71	LHDT2
San Bernardino (SC)	2023	LHDT2	Aggregate	Aggregate	Diesel	4748.518724	60219517.93	3528.252637	3528252.637					
San Bernardino (SC)	2023	MCY	Aggregate	Aggregate	Gasoline	20689.98168	42836654.11	1024.529799	1024529.799	1024529.799	42836654.11	42836654.11	41.81	MCY
San Bernardino (SC)	2023	MDV	Aggregate	Aggregate	Gasoline	147303.3129	2011093605	104722.9308	104722930.8	106121590.4	2011093605	2063737500	19.45	MDV
San Bernardino (SC)	2023	MDV	Aggregate	Aggregate	Diesel	1912.856517	27101379.22	1153.981539	1153981.539					
San Bernardino (SC)	2023	MDV	Aggregate	Aggregate	Electricity	883.4710394	11157327.81	0	0					
San Bernardino (SC)	2023	MDV	Aggregate	Aggregate	Plug-in Hybrid	823.221551	14385188.28	244.6781301	244678.1301					
San Bernardino (SC)	2023	MH	Aggregate	Aggregate	Gasoline	3595.119651	10460741.91	2131.45052	2131450.52	2521132.488	10460741.91	14451897.96	5.73	MH
San Bernardino (SC)	2023	MH	Aggregate	Aggregate	Diesel	1340.055605	3991156.05	389.6819685	389681.9685					
San Bernardino (SC)	2023	MHDT	Aggregate	Aggregate	Gasoline	1500.364507	26043135.77	5038.733349	5038733.349	27656121.37	26043135.77	228746120.4	8.27	MHDT
San Bernardino (SC)	2023	MHDT	Aggregate	Aggregate	Diesel	14608.25407	199805820.7	22288.42278	22288422.78					
San Bernardino (SC)	2023	MHDT	Aggregate	Aggregate	Electricity	9.224784632	63608.15122	0	0					
San Bernardino (SC)	2023	MHDT	Aggregate	Aggregate	Natural Gas	184.1702325	2833555.784	328.9652465	328965.2465					
San Bernardino (SC)	2023	OBUS	Aggregate	Aggregate	Gasoline	384.9686335	5415956.324	1063.297516	1063297.516	1724023.258	5415956.324	10403786.09	6.03	OBUS
San Bernardino (SC)	2023	OBUS	Aggregate	Aggregate	Diesel	208.3404962	4425212.016	597.3315243	597331.5243					
San Bernardino (SC)	2023	OBUS	Aggregate	Aggregate	Natural Gas	31.52138873	562617.7521	63.3942171	63394.2171					
San Bernardino (SC)	2023	SBUS	Aggregate	Aggregate	Gasoline	294.5939953	4514535.962	505.0559552	505055.9552	1611072.188	4514535.962	10332913.93	6.41	SBUS
San Bernardino (SC)	2023	SBUS	Aggregate	Aggregate	Diesel	382.1050011	2616781.695	356.3903036	356390.3036					
San Bernardino (SC)	2023	SBUS	Aggregate	Aggregate	Electricity	0.69336851	2637.406802	0	0					
San Bernardino (SC)	2023	SBUS	Aggregate	Aggregate	Natural Gas	385.616886	3198958.869	749.6259288	749625.9288					
San Bernardino (SC)	2023	UBUS	Aggregate	Aggregate	Gasoline	54.60967225	1714542.424	140.3696548	140369.6548	2776335.306	1714542.424	13093887.88	4.72	UBUS
San Bernardino (SC)	2023	UBUS	Aggregate	Aggregate	Diesel	4.556959009	147096.8417	14.11747797	14117.47797					
San Bernardino (SC)	2023	UBUS	Aggregate	Aggregate	Electricity	0.433186591	14102.7389	0	0					
San Bernardino (SC)	2023	UBUS	Aggregate	Aggregate	Natural Gas	249.7401785	11218145.87	2621.848173	2621848.173					



Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: Sub-Area

Region: San Bernardino (SC)

Calendar Year: 2024

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/year for CVMT and EVMT, trips/year for Trips, kWh/year for Energy Consumption, tons/year for Emissions, 1000 gallons/year for Fuel Consumption

Region	CalYr	VehClass	MdYr	Speed	Fuel	Population	VMT	Fuel_Consumption	Fuel_Consumption	Total Fuel	VMT	Total VMT	Miles per Gallon	Vehicle Class
San Bernardino (SC)	2024	HHDT	Aggregate	Aggregate	Gasoline	5.565987525	65632.20065	17.55506745	17555.06745	100020707.1	65632.20065	602650321.4	6.03	HHDT
San Bernardino (SC)	2024	HHDT	Aggregate	Aggregate	Diesel	14231.95658	551042326.4	92002.9329	92002932.9		551042326.4			
San Bernardino (SC)	2024	HHDT	Aggregate	Aggregate	Electricity	48.62871821	1514395.863	0	0		1514395.863			
San Bernardino (SC)	2024	HHDT	Aggregate	Aggregate	Natural Gas	2469.470738	50027966.96	8000.219124	8000219.124		50027966.96			
San Bernardino (SC)	2024	LDA	Aggregate	Aggregate	Gasoline	459317.1397	6998203711	235268.3364	235268336.4	239249877	6998203711	7553967064	31.57	LDA
San Bernardino (SC)	2024	LDA	Aggregate	Aggregate	Diesel	1047.589492	13077704.42	304.6940031	304694.0031		13077704.42			
San Bernardino (SC)	2024	LDA	Aggregate	Aggregate	Electricity	19287.2826	319989461.8	0	0		319989461.8			
San Bernardino (SC)	2024	LDA	Aggregate	Aggregate	Plug-in Hybrid	12500.45848	222696187.4	3676.846561	3676846.561		222696187.4			
San Bernardino (SC)	2024	LDT1	Aggregate	Aggregate	Gasoline	40725.35771	490115573.8	19992.18901	19992189.01	20008289.61	490115573.8	492044217.3	24.59	LDT1
San Bernardino (SC)	2024	LDT1	Aggregate	Aggregate	Diesel	10.72175816	55107.22369	2.270239442	2270.239442		55107.22369			
San Bernardino (SC)	2024	LDT1	Aggregate	Aggregate	Electricity	58.29951204	952224.2422	0	0		952224.2422			
San Bernardino (SC)	2024	LDT1	Aggregate	Aggregate	Plug-in Hybrid	51.79076029	921312.0144	13.83036618	13830.36618		921312.0144			
San Bernardino (SC)	2024	LDT2	Aggregate	Aggregate	Gasoline	192654.7494	2757561092	113913.4167	113913416.7	114588210.3	2757561092	2808082925	24.51	LDT2
San Bernardino (SC)	2024	LDT2	Aggregate	Aggregate	Diesel	520.896721	8078084.967	243.685157	243685.157		8078084.967			
San Bernardino (SC)	2024	LDT2	Aggregate	Aggregate	Electricity	1199.246991	15005145.59	0	0		15005145.59			
San Bernardino (SC)	2024	LDT2	Aggregate	Aggregate	Plug-in Hybrid	1594.625518	27438602.16	431.1084869	431108.4869		27438602.16			
San Bernardino (SC)	2024	LHDT1	Aggregate	Aggregate	Gasoline	17179.49082	208481689.1	15346.53488	15346534.88	22275281.21	208481689.1	352257356.3	15.81	LHDT1
San Bernardino (SC)	2024	LHDT1	Aggregate	Aggregate	Diesel	11382.09786	142493007.5	6928.746332	6928746.332		142493007.5			
San Bernardino (SC)	2024	LHDT1	Aggregate	Aggregate	Electricity	52.7403112	1282659.757	0	0		1282659.757			
San Bernardino (SC)	2024	LHDT2	Aggregate	Aggregate	Gasoline	2883.702401	33531637.34	2787.053647	2787053.647	6339312.387	33531637.34	94885856.62	14.97	LHDT2
San Bernardino (SC)	2024	LHDT2	Aggregate	Aggregate	Diesel	4825.532255	61039665.72	3552.258741	3552258.741		61039665.72			
San Bernardino (SC)	2024	LHDT2	Aggregate	Aggregate	Electricity	13.65084178	314553.5538	0	0		314553.5538			
San Bernardino (SC)	2024	MCY	Aggregate	Aggregate	Gasoline	20751.92893	42918713.78	1022.38967	1022389.67	1022389.67	42918713.78	42918713.78	41.98	MCY
San Bernardino (SC)	2024	MDV	Aggregate	Aggregate	Gasoline	147141.1277	2023247300	102986.2138	102986213.8	104408638.9	2023247300	2084683084	19.97	MDV
San Bernardino (SC)	2024	MDV	Aggregate	Aggregate	Diesel	1910.88318	26864024.48	1129.452064	1129452.064		26864024.48			
San Bernardino (SC)	2024	MDV	Aggregate	Aggregate	Electricity	1327.48959	16604056.61	0	0		16604056.61			
San Bernardino (SC)	2024	MDV	Aggregate	Aggregate	Plug-in Hybrid	1028.690257	17967703.21	292.9729803	292972.9803		17967703.21			
San Bernardino (SC)	2024	MH	Aggregate	Aggregate	Gasoline	3401.970527	9880592.437	2022.448199	2022448.199	2408282.462	9880592.437	13826961.78	5.74	MH
San Bernardino (SC)	2024	MH	Aggregate	Aggregate	Diesel	1336.39751	3946369.345	385.834263	385834.263		3946369.345			
San Bernardino (SC)	2024	MHDT	Aggregate	Aggregate	Gasoline	1460.602089	25635396.94	4923.389143	4923389.143	27935606.17	25635396.94	232314319.3	8.32	MHDT
San Bernardino (SC)	2024	MHDT	Aggregate	Aggregate	Diesel	14946.4736	202976493.9	22669.39063	22669390.63		202976493.9			
San Bernardino (SC)	2024	MHDT	Aggregate	Aggregate	Electricity	46.13645649	737631.427	0	0		737631.427			
San Bernardino (SC)	2024	MHDT	Aggregate	Aggregate	Natural Gas	195.6757264	2964797.055	342.8264	342826.4		2964797.055			
San Bernardino (SC)	2024	OBUS	Aggregate	Aggregate	Gasoline	370.0192137	5168863.655	1012.113043	1012113.043	1678725.582	5168863.655	10209810.25	6.08	OBUS
San Bernardino (SC)	2024	OBUS	Aggregate	Aggregate	Diesel	210.5519789	4437514.629	600.0645542	600064.5542		4437514.629			
San Bernardino (SC)	2024	OBUS	Aggregate	Aggregate	Electricity	0.809761934	21328.84548	0	0		21328.84548			
San Bernardino (SC)	2024	OBUS	Aggregate	Aggregate	Natural Gas	32.78528924	582103.1254	66.54798496	66547.98496		582103.1254			
San Bernardino (SC)	2024	SBUS	Aggregate	Aggregate	Gasoline	297.8692006	4585227.496	511.4311108	511431.1108	1619236.79	4585227.496	10410441.24	6.43	SBUS
San Bernardino (SC)	2024	SBUS	Aggregate	Aggregate	Diesel	373.2941498	2533365.656	344.1451415	344145.1415		2533365.656			
San Bernardino (SC)	2024	SBUS	Aggregate	Aggregate	Electricity	2.213199982	18416.70512	0	0		18416.70512			
San Bernardino (SC)	2024	SBUS	Aggregate	Aggregate	Natural Gas	398.7600331	3273431.384	763.6605376	763660.5376		3273431.384			
San Bernardino (SC)	2024	UBUS	Aggregate	Aggregate	Gasoline	54.72012078	1718010.1	132.909217	132909.217	2702138.875	1718010.1	13120370.38	4.86	UBUS
San Bernardino (SC)	2024	UBUS	Aggregate	Aggregate	Diesel	4.556959009	147096.8417	14.21429006	14214.29006		147096.8417			
San Bernardino (SC)	2024	UBUS	Aggregate	Aggregate	Electricity	7.328344802	363414.4038	0	0		363414.4038			
San Bernardino (SC)	2024	UBUS	Aggregate	Aggregate	Natural Gas	243.3602145	10891849.03	2555.015368	2555015.368		10891849.03			

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GEOTECHNICAL INVESTIGATION  
PROPOSED WAREHOUSE  
5355 East Airport Drive  
Ontario, California  
for  
Prologis



March 9, 2022

Prologis  
17777 Center Court Drive North, Suite 100  
Cerritos, California 90703

Attention: Mr. John Carter  
Director, Project Management

Project No.: 22G128-1

Subject: Geotechnical Investigation  
Proposed Warehouse  
5355 East Airport Drive  
Ontario, California



**SOUTHERN  
CALIFORNIA  
GEOTECHNICAL**  
*A California Corporation*

Dear Mr. Carter:

In accordance with your request, we have conducted a geotechnical investigation at the subject site. We are pleased to present this report summarizing the conclusions and recommendations developed from our investigation.

We sincerely appreciate the opportunity to be of service on this project. We look forward to providing additional consulting services during the course of the project. If we may be of further assistance in any manner, please contact our office.

Respectfully Submitted,

**SOUTHERN CALIFORNIA GEOTECHNICAL, INC.**

A handwritten signature in blue ink, appearing to read "JL Leon".

Joseph Lozano Leon  
Staff Engineer

A handwritten signature in blue ink, appearing to read "Robert G. Trazo".

Robert G. Trazo, M.Sc., GE 2655  
Principal Engineer



Distribution: (1) Addressee

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## 1.0 EXECUTIVE SUMMARY

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Presented below is a brief summary of the conclusions and recommendations of this investigation. Since this summary is not all inclusive, it should be read in complete context with the entire report.

### Geotechnical Design Considerations

- Artificial fill soils were encountered beneath the existing pavements and at the ground surface at all of the boring locations, extending to depths of 2½ to 6½± feet below the existing site grades.
- Results of laboratory testing indicate that the fill soils are compressible when loaded and may be subject to hydrocollapse when inundated with water. These soils, in their present condition, are not considered suitable for support of the foundation loads of the new structure.
- The fill soils and near-surface alluvial soils possess varying strengths. The results of laboratory testing indicate that the near-surface soils within the upper 5 to 6± feet possess a slight to moderate potential for collapse when exposed to moisture infiltration as well as consolidation when exposed to load increases in the range of those that will be exerted by the new foundations.
- It is anticipated that demolition of the existing structures and associated improvements will cause disturbance of the upper 5 to 6± feet of soil.
- Remedial grading is considered warranted within the proposed building area in order to remove all of the undocumented fill soils in their entirety and any soils disturbed during the demolition process, and replace these materials as compacted structural fill soils.

### Site Preparation Recommendations

- Demolition of the existing structures and pavements will be required in order to facilitate construction of the new development. Demolition should also include all utilities and any other subsurface improvements that will not remain in place for use with the new development. Debris resultant from demolition should be disposed of off-site. Alternatively, concrete and asphalt debris may be pulverized to a maximum 2-inch particle size mixed with on-site sandy soils, and reutilized as compacted structural fill, or it may be crushed into miscellaneous base (CMB).
- Existing vegetation and organic materials within the landscape areas should be disposed of off-site, or in non-structural areas of the property.
- Remedial grading is recommended to be performed within the proposed building area in order to remove all of the undocumented fill soils in their entirety, the upper portion of the near-surface native alluvial soils, and any soils disturbed during the demolition process. The soils within the proposed building area should be overexcavated to a depth of 5 feet below existing grade and to a depth of at least 3 feet below proposed building pad subgrade elevations.
- The depth of overexcavation should also be sufficient to remove any existing fill soils. The proposed foundation influence zones should be overexcavated to a depth of at least 3 feet below proposed foundation bearing grade.
- Following completion of the overexcavation, the resulting subgrade soils should be evaluated by the geotechnical engineer to identify any additional soils that should be overexcavated. The resulting soils should be scarified and moisture conditioned to achieve a moisture content of 0 to 4 percent above optimum moisture, to a depth of at least 12 inches. The

overexcavation subgrade soils should then be recompacted under the observation of the geotechnical engineer. The previously excavated soils may then be replaced as compacted structural fill. All structural fill soils should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density.

- The new pavement and flatwork subgrade soils are recommended to be scarified to a depth of 12± inches, moisture conditioned and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density.
- Based on the results of corrosivity testing, the on-site soils are considered to be corrosive to ductile iron pipe.

#### Foundation Design Recommendations

- Conventional shallow foundations, supported in newly placed compacted fill.
- 2,500 lbs/ft<sup>2</sup> maximum allowable soil bearing pressure.
- Reinforcement consisting of at least two (2) No. 5 rebars (1 top and 1 bottom) in strip footings. Additional reinforcement may be necessary for structural considerations.

#### Building Floor Slab Design Recommendations

- Conventional Slab-on-Grade: minimum 6 inches thick.
- Modulus of Subgrade Reaction:  $k = 150$  psi/in.
- Reinforcement is not expected to be necessary for geotechnical considerations. The actual thickness and reinforcement of the floor slab should be determined by the structural engineer.

#### Pavement Design Recommendations

ASPHALT PAVEMENTS (R = 40)					
Materials	Thickness (inches)				
	Auto Parking and Auto Drive Lanes (TI = 4.0 to 5.0)	Truck Traffic			
		TI = 6.0	TI = 7.0	TI = 8.0	TI = 9.0
Asphalt Concrete	3	3½	4	5	5½
Aggregate Base	4	6	7	8	10
Compacted Subgrade	12	12	12	12	12

PORTLAND CEMENT CONCRETE PAVEMENTS (R = 40)				
Materials	Thickness (inches)			
	Autos and Light Truck Traffic (TI = 6.0)	Truck Traffic Areas		
		TI =7.0	TI =8.0	TI =9.0
PCC	5	5½	6½	8
Compacted Subgrade (95% minimum compaction)	12	12	12	12

## 2.0 SCOPE OF SERVICES

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The scope of services performed for this project was in accordance with our Proposal No. 22P129, dated January 21, 2022. The scope of services included a visual site reconnaissance, subsurface exploration, field and laboratory testing, and geotechnical engineering analysis to provide criteria for preparing the design of the building foundations, building floor slab, and parking lot pavements along with site preparation recommendations and construction considerations for the proposed development. The evaluation of the environmental aspects of this site was beyond the scope of services for this geotechnical investigation.



## 3.0 SITE AND PROJECT DESCRIPTION

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### 3.1 Site Conditions

The subject site is located on the north side of East Airport Drive, 1,310± feet east of the intersection of South Wineville Avenue and East Airport Drive in Ontario, California. The site is also referenced by the street address 5355 East Airport Drive. The site is bounded to the north by Union Pacific railroad tracks, to the east and west by an industrial development, and to the south by East Airport Drive. The general location of the site is illustrated on the Site Location Map, enclosed as Plate 1 in Appendix A of this report.

The site consists of an irregular-shaped property, 14.58± acres in size. The site is developed to manufacture and store animal feed grains. The development includes several buildings and shed structures ranging in size from 2,200± ft<sup>2</sup> to 20,175± ft<sup>2</sup>, and several silos and above-ground storage tanks (ASTs) primarily located in the north-central region of the site. The existing structures are generally of concrete tilt-up and/or metal-framed construction, and are presumed to be supported on conventional shallow foundations with concrete slab-on-grade floors. The existing structures are generally surrounded by asphaltic concrete (AC) pavements, with isolated areas of Portland cement concrete (PCC), aggregate base pavements, and exposed soils in the south-central portion of the site. The existing pavements are in poor condition, with moderate to severe cracking throughout. Two medium-size trees are present in the south-central region of the site.

Detailed topographic information was not available at the time of this report. Based on elevations obtained from Google Earth and visual observations made at the time of the subsurface investigation, the site slopes gently to the south-southeast at a gradient of less than 1 percent.

### 3.2 Proposed Development

A preliminary site plan, identified as Scheme 01 and prepared by RGA, for the proposed development was provided to our office by the client. Based on this plan, the subject site will be developed with a 259,189± ft<sup>2</sup> warehouse, located in the north-central region of the site. Dock-high doors will be constructed along a portion of the south building wall. The proposed building is expected to be surrounded by AC pavements in the parking and drive areas, PCC pavements in the loading dock area, and concrete flatwork and landscaped planters throughout the site.

Detailed structural information has not been provided. It is assumed that the new building will be a single-story structure of tilt-up concrete construction, supported on a conventional shallow foundation system with a concrete slab-on-grade floor. Based on the assumed construction, maximum column and wall loads are expected to be on the order of 100 kips and 4 to 7 kips per linear foot, respectively.

No significant amounts of below-grade construction, such as basements or crawl spaces, are expected to be included in the proposed development. Based on the assumed topography, cuts

and fills of up to 3± feet are expected to be necessary to achieve the proposed building pad grades. It should be noted that this estimate does not include any remedial grading recommendations which are presented in a subsequent section of this report.

## 4.0 SUBSURFACE EXPLORATION

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### 4.1 Scope of Exploration/Sampling Methods

The subsurface exploration conducted for this project consisted of five (5) borings (identified as Boring Nos. B-1 through B-5) advanced to depths of 20 to 30± feet below the existing site grades. All of the borings were logged during drilling by a member of our staff.

The borings were advanced with hollow-stem augers, by a conventional truck-mounted drilling rig. Representative bulk and relatively undisturbed soil samples were taken during drilling. **Relatively undisturbed soil samples were taken with a split barrel "California Sampler"** containing a series of one inch long, 2.416± inch diameter brass rings. This sampling method is described in ASTM Test Method D-3550. In-situ samples were also taken using a 1.4± inch inside diameter split spoon sampler, in general accordance with ASTM D-1586. Both of these samplers are driven into the ground with successive blows of a 140-pound weight falling 30 inches. The blow counts obtained during driving are recorded for further analysis. Bulk samples were collected in plastic bags to retain their original moisture content. The relatively undisturbed ring samples were placed in molded plastic sleeves that were then sealed and transported to our laboratory.

The approximate locations of the borings are indicated on the Boring Location Plan, included as Plate 2 in Appendix A of this report. The Boring Logs, which illustrate the conditions encountered at the boring locations, as well as the results of some of the laboratory testing, are included in Appendix B.

### 4.2 Geotechnical Conditions

#### Pavements

AC pavements were encountered at the ground surface of Boring Nos. B-1 through B-4. The pavement sections generally consist of 0 to 2½± inches of AC, underlain by 1 to 3½± inches of aggregate base.

#### Artificial Fill

Artificial fill soils were encountered beneath the existing pavements at Boring Nos. B-1 through B-4 and at the ground surface at Boring No. B-5, extending to depths of 2½ to 6½± feet below the existing site grades. The fill soils generally consist of loose to medium dense sands and silty sands, with occasional dense silty sands. The fill soils possess a disturbed and mottled appearance resulting in their classification as artificial fill.

## Alluvium

Native alluvium was encountered beneath the artificial fill soils at all of the boring locations, extending to at least the maximum depth explored of 30± feet below existing site grades. The near-surface alluvium generally consists of loose to medium dense sands and sandy silts, extending to depths of 6½ to 12± feet. At greater depths, the alluvium generally consists of medium dense to dense sands, silty sands and sandy silts. Boring No. B-3 encountered a stratum of very dense silty sands and sandy silts at a depth of 14 to 17± feet. Boring No. B-5 encountered a stratum of loose well-graded sands at a depth of 12 to 17± feet.

## Groundwater

Free water was not encountered during the drilling of any of the borings. Based on the lack of any water within the borings and the moisture contents of the recovered soil samples, the static groundwater is considered to have existed at a depth in excess of 30± feet at the time of the subsurface exploration.

As part of our research, we reviewed available groundwater data in order to determine groundwater levels for the site. Water level data was obtained from the California Department of Water Resources Water Data Library website, <https://wdl.water.ca.gov/waterdatalibrary/>. The nearest monitoring well on record (identified as State Well Number: 01S06W29H001S) is located 3,400± feet southeast of the project site. Water level readings within this monitoring well indicate a high groundwater level of 277± feet below the ground surface in April 2019.

## 5.0 LABORATORY TESTING

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The soil samples recovered from the subsurface exploration were returned to our laboratory for further testing to determine selected physical and engineering properties of the soils. The tests are briefly discussed below. It should be noted that the test results are specific to the actual samples tested, and variations could be expected at other locations and depths.

### Classification

All recovered soil samples were classified using the Unified Soil Classification System (USCS), in accordance with ASTM D-2488. The field identifications were then supplemented with additional visual classifications and/or by laboratory testing. The USCS classifications are shown on the Boring Logs and are periodically referenced throughout this report.

### Density and Moisture Content

The density has been determined for selected relatively undisturbed ring samples. These densities were determined in general accordance with the method presented in ASTM D-2937. The results are recorded as dry unit weight in pounds per cubic foot. The moisture contents are determined in accordance with ASTM D-2216, and are expressed as a percentage of the dry weight. These test results are presented on the Boring Logs.

### Consolidation

Selected soil samples have been tested to determine their consolidation potential, in accordance with ASTM D-2435. The testing apparatus is designed to accept either natural or remolded samples in a one-inch high ring, approximately 2.416 inches in diameter. Each sample is then loaded incrementally in a geometric progression and the resulting deflection is recorded at selected time intervals. Porous stones are in contact with the top and bottom of the sample to permit the addition or release of pore water. The samples are typically inundated with water at an intermediate load to determine their potential for collapse or heave. The results of the consolidation testing are plotted on Plates C-1 through C-8 in Appendix C of this report.

### Maximum Dry Density and Optimum Moisture Content

One representative bulk sample has been tested for its maximum dry density and optimum moisture content. The results have been obtained using the Modified Proctor procedure, per ASTM D-1557 and are presented on Plate C-9 in Appendix C of this report. This test is generally used to compare the in-situ densities of undisturbed field samples, and for later compaction testing. Additional testing of other soil types or soil mixes may be necessary at a later date.

### Soluble Sulfates

A representative sample of the near-surface soil was submitted to a subcontracted analytical laboratory for determination of soluble sulfate content. Soluble sulfates are naturally present in soils, and if the concentration is high enough, can result in degradation of concrete which comes

into contact with these soils. The results of the soluble sulfate testing are presented below, and are discussed further in a subsequent section of this report.

<u>Sample Identification</u>	<u>Soluble Sulfates (%)</u>	<u>Sulfate Classification</u>
B-3 @ 0 to 5 feet	0.040	Not Applicable (S0)

Corrosivity Testing

One representative sample of the near-surface soils was submitted to a subcontracted corrosion engineering laboratory to identify potentially corrosive characteristics with respect to common construction materials. The corrosivity testing included a determination of the electrical resistivity, pH, and chloride and nitrate concentrations of the soils, as well as other tests. The results of some of these tests are presented below.

<u>Sample Identification</u>	<u>Saturated Resistivity (ohm-cm)</u>	<u>pH</u>	<u>Chlorides (mg/kg)</u>	<u>Nitrates (mg/kg)</u>
B-3 @ 0 to 5 feet	2,010	8.1	19.3	1.4

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

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Based on the results of our review, field exploration, laboratory testing and geotechnical analysis, the proposed development is considered feasible from a geotechnical standpoint. The recommendations contained in this report should be taken into the design, construction, and grading considerations.

The recommendations are contingent upon all grading and foundation construction activities being monitored by the geotechnical engineer of record. The recommendations are provided with the assumption that an adequate program of client consultation, construction monitoring, and testing will be performed during the final design and construction phases to verify compliance with these recommendations. Maintaining Southern California Geotechnical, Inc., (SCG) as the geotechnical consultant from the beginning to the end of the project will provide continuity of services. The geotechnical engineering firm providing testing and observation services shall assume the responsibility of Geotechnical Engineer of Record.

The Grading Guide Specifications, included as Appendix D, should be considered part of this report, and should be incorporated into the project specifications. The contractor and/or owner of the development should bring to the attention of the geotechnical engineer any conditions that differ from those stated in this report, or which may be detrimental for the development.

### 6.1 Seismic Design Considerations

The subject site is located in an area which is subject to strong ground motions due to earthquakes. The performance of a site-specific seismic hazards analysis was beyond the scope of this investigation. However, numerous faults capable of producing significant ground motions are located near the subject site. Due to economic considerations, it is not generally considered reasonable to design a structure that is not susceptible to earthquake damage. Therefore, significant damage to structures may be unavoidable during large earthquakes. The proposed structure should, however, be designed to resist structural collapse and thereby provide reasonable protection from serious injury, catastrophic property damage and loss of life.

#### Faulting and Seismicity

Research of available maps indicates that the subject site is not located within an Alquist-Priolo Earthquake Fault Zone. Furthermore, SCG did not identify any evidence of faulting during the geotechnical investigations. Therefore, the possibility of significant fault rupture on the site is considered to be low.

The potential for other geologic hazards such as seismically induced settlement, lateral spreading, tsunamis, inundation, seiches, flooding, and subsidence affecting the site is considered low. Based on Map Number 06071C8633J, dated September 2, 2016, prepared by the Federal Emergency Management Agency (FEMA) Flood Maps, the project site is in an area designated as Zone X which is determined to be outside the 0.2% annual chance floodplain.

## Seismic Design Parameters

The 2019 California Building Code (CBC) provides procedures for earthquake resistant structural design that include considerations for on-site soil conditions, occupancy, and the configuration of the structure including the structural system and height. The seismic design parameters presented below are based on the soil profile and the proximity of known faults with respect to the subject site.

Based on standards in place at the time of this report, the proposed development is expected to be designed in accordance with the requirements of the 2019 edition of the California Building Code (CBC), which was adopted on January 1, 2020.

The 2019 CBC Seismic Design Parameters have been generated using the SEAOC/OSHPD Seismic Design Maps Tool, a web-based software application available at the website [www.seismicmaps.org](http://www.seismicmaps.org). This software application calculates seismic design parameters in accordance with several building code reference documents, including ASCE 7-16, upon which the 2019 CBC is based. The application utilizes a database of risk-targeted maximum considered earthquake ( $MCE_R$ ) site accelerations at 0.01-degree intervals for each of the code documents. The table below was created using data obtained from the application. The output generated from this program is included as Plate E-1 in Appendix E of this report.

The 2019 CBC requires that a site-specific ground motion study be performed in accordance with Section 11.4.8 of ASCE 7-16 for Site Class D sites with a mapped  $S_1$  value greater than 0.2. However, Section 11.4.8 of ASCE 7-16 also indicates an exception to the requirement for a site-specific ground motion hazard analysis for certain structures on Site Class D sites. The commentary for Section 11 of ASCE 7-16 (Page 534 of Section C11 of ASCE 7-16) indicates that **“In general, this exception effectively limits the requirements for site-specific hazard analysis to very tall and or flexible structures at Site Class D sites.”** Based on our understanding of the proposed development, the seismic design parameters presented below were calculated assuming that the exception in Section 11.4.8 applies to the proposed structure at this site. However, the structural engineer should verify that this exception is applicable to the proposed structure. Based on the exception, the spectral response accelerations presented below were calculated using the site coefficients ( $F_a$  and  $F_v$ ) from Tables 1613.2.3(1) and 1613.2.3(2) presented in Section 16.4.4 of the 2019 CBC.

2019 CBC SEISMIC DESIGN PARAMETERS

Parameter		Value
Mapped Spectral Acceleration at 0.2 sec Period	$S_s$	1.692
Mapped Spectral Acceleration at 1.0 sec Period	$S_1$	0.625
Site Class	---	D
Site Modified Spectral Acceleration at 0.2 sec Period	$S_{MS}$	1.692
Site Modified Spectral Acceleration at 1.0 sec Period	$S_{M1}$	1.063
Design Spectral Acceleration at 0.2 sec Period	$S_{DS}$	1.128
Design Spectral Acceleration at 1.0 sec Period	$S_{D1}$	0.708



It should be noted that the site coefficient  $F_v$  and the parameters  $S_{M1}$  and  $S_{D1}$  were not included in the SEAOC/OSHPD Seismic Design Maps Tool output for the 2019 CBC. We calculated these parameters-based on Table 1613.2.3(2) in Section 16.4.4 of the 2019 CBC using the value of  $S_1$  obtained from the Seismic Design Maps Tool, assuming that a site-specific ground motion hazards analysis is not required for the proposed building at this site.

### Liquefaction

Liquefaction is the loss of strength in generally cohesionless, saturated soils when the pore-water pressure induced in the soil by a seismic event becomes equal to or exceeds the overburden pressure. The primary factors which influence the potential for liquefaction include groundwater table elevation, soil type and grain size characteristics, relative density of the soil, initial confining pressure, and intensity and duration of ground shaking. The depth within which the occurrence of liquefaction may impact surface improvements is generally identified as the upper 50 feet below the existing ground surface. Liquefaction potential is greater in saturated, loose, poorly graded fine sands with a mean ( $d_{50}$ ) grain size in the range of 0.075 to 0.2 mm (Seed and Idriss, 1971). Clayey (cohesive) soils or soils which possess clay particles ( $d < 0.005\text{mm}$ ) in excess of 20 percent (Seed and Idriss, 1982) are generally not considered to be susceptible to liquefaction, nor are those soils which are above the historic static groundwater table.

The California Geological Survey (CGS) has not yet conducted detailed seismic hazards mapping in the area of the subject site. The general liquefaction susceptibility of the site was determined by research of the San Bernardino County Land Use Plan, General Plan, Geologic Hazard Overlays. Map FH28C for the Guasti 7.5-Minute Quadrangle indicates that the subject site is not located within an area of liquefaction susceptibility. Based on the mapping performed by the county of San Bernardino and the lack of a historic high ground water table within the upper  $50 \pm$  feet of the ground surface, liquefaction is not considered to be a design concern for this project.

## 6.2 Geotechnical Design Considerations

### General

All of the borings encountered artificial fill materials, extending to depths of  $2\frac{1}{2}$  to  $6\frac{1}{2} \pm$  feet below the existing site grades. Results of laboratory testing indicate that the fill soils are compressible when loaded and may be subject to minor hydrocollapse when inundated with water. Based on a lack of documentation regarding the placement and compaction of the existing fill materials, these soils are considered to consist of undocumented fill. Therefore, the fill soils in their present condition are not suitable for the support of the foundation loads of the proposed building. The fill soils and near-surface alluvial soils possess varying strengths. The results of laboratory testing indicate that the near-surface soils within the upper 5 to  $6 \pm$  feet possess a slight to moderate potential for collapse when exposed to moisture infiltration as well as consolidation when exposed to load increases in the range of those that will be exerted by the new foundations. Additionally, it is anticipated that demolition of the existing structures and associated improvements will cause disturbance of the upper 5 to  $6 \pm$  feet of soil. Therefore, remedial grading is considered warranted within the proposed building area in order to remove all of the undocumented fill soils in their entirety, the upper portion of the near-surface native

alluvial soils, and any soils disturbed during the demolition process, and replace these materials as compacted structural fill soils.

Based on the results of corrosivity testing, the on-site soils are considered to be corrosive to ductile iron pipe.

### Settlement

The recommended remedial grading will remove the existing undocumented fill soils and a portion of the near-surface native alluvial soils and replace these materials as compacted structural fill. The native soils that will remain in place below the recommended depth of overexcavation will not be subject to significant stress increases from the foundations of the new structure. Provided that the recommended remedial grading is completed, the post-construction static settlements of the proposed structure are expected to be less than 1.0 and 0.5 inches for total and differential settlements of shallow foundations, respectively.

### Expansion

The near-surface soils consist of sands and silty sands with no appreciable clay content. These materials have been visually classified as non-expansive. Therefore, no design considerations related to expansive soils are considered warranted for this site.

### Soluble Sulfates

The results of the soluble sulfate testing indicate that the selected sample of the on-site soils contains a sulfate concentration that corresponds to Class S0 with respect to the American Concrete Institute (ACI) Publication 318-05 Building Code Requirements for Structural Concrete and Commentary, Section 4.3. Therefore, specialized concrete mix designs are not considered to be necessary, with regard to sulfate protection purposes. It is, however, recommended that additional soluble sulfate testing be conducted at the completion of rough grading to verify the soluble sulfate concentrations of the soils which are present at pad grade within the building area.

### Corrosion Potential

The results of laboratory testing indicate that the tested sample of the on-site soils possesses a saturated resistivity value of 2,010 ohm-cm, and a pH value of 8.1. These test results have been evaluated in accordance with guidelines published by the Ductile Iron Pipe Research Association (DIPRA). The DIPRA guidelines consist of a point system by which characteristics of the soils are used to quantify the corrosivity characteristics of the site. Resistivity, pH, redox potential, relative soil moisture content and sulfides are the factors that enter into the evaluation procedure. Based on these factors, and utilizing the DIPRA procedure, the on-site soils are considered to be corrosive to ductile iron pipe. Therefore, polyethylene protection may be required for cast iron or ductile iron pipes. It should be noted that SCG does not practice in the field of corrosion engineering. Therefore, the client may also wish to contact a corrosion engineer to provide a more thorough evaluation.

A relatively low concentration (19.3 mg/kg) of chlorides was detected in the sample submitted for corrosivity testing. In general, soils possessing chloride concentrations in excess of 500 parts per million (ppm) are considered to be corrosive with respect to steel reinforcement within

reinforced concrete. Based on the lack of any significant chlorides in the tested sample, the site is considered to have a C1 chloride exposure in accordance with the American Concrete Institute (ACI) Publication 318 Building Code Requirements for Structural Concrete and Commentary. Therefore, a specialized concrete mix design for reinforced concrete for protection against chloride exposure is not considered warranted.

Nitrates present in soil can be corrosive to copper tubing at concentrations greater than 50 mg/kg. The tested sample possesses a nitrate concentration of 1.4 mg/kg. Based on this test result, the on-site soils are not considered to be corrosive to copper pipe.

It should be noted that SCG does not practice in the field of corrosion engineering. Therefore, the client may wish to contact a corrosion engineer to provide a more thorough evaluation.

### Shrinkage/Subsidence

Removal and recompaction of the near-surface existing soils is estimated to result in an average shrinkage of 5 to 15 percent. However, shrinkage estimates for the individual samples range between 3 and 18 percent based on the results of density testing and the assumption that the onsite soils will be compacted to about 92 percent of the ASTM D-1557 maximum dry density. It should be noted that the shrinkage estimate is based on the results of dry density testing performed on small-diameter samples of the existing soils taken at the boring locations. If a more accurate and precise shrinkage estimate is desired, SCG can perform a shrinkage study involving several excavated test-pits where in-place densities are determined using in-situ testing methods instead of laboratory density testing on small-diameter samples. Please contact SCG for details and a cost estimate regarding a shrinkage study, if desired.

Minor ground subsidence is expected to occur in the soils below the zone of removal, due to settlement and machinery working. The subsidence is estimated to be 0.15 feet. This estimate may be used for grading in areas that are underlain by native alluvial soils.

These estimates are based on previous experience and the subsurface conditions encountered at the boring locations. The actual amount of subsidence is expected to be variable and will be dependent on the type of machinery used, repetitions of use, and dynamic effects, all of which are difficult to assess precisely.

### Grading and Foundation Plan Review

Grading and foundation plans were not available at the time of this report. It is therefore recommended that we be provided with copies of the preliminary grading and foundation plans, when they become available, for review with regard to the conclusions, recommendations, and assumptions contained within this report.

### 6.3 Site Grading Recommendations

The grading recommendations presented below are based on the subsurface conditions encountered at the boring locations, and our understanding of the proposed development. We recommend that all grading activities be completed in accordance with the Grading Guide

Specifications included as Appendix D of this report, unless superseded by site-specific recommendations presented below.

### Site Stripping and Demolition

The proposed development will require demolition of the existing pavements and structures. Additionally, any existing improvements that will not remain in place for use with the new development should be removed in their entirety. This should include all utilities, and any other subsurface improvements associated with the existing pavements. The existing pavements are not expected to be reused with the new development. Any septic systems encountered during demolition and/or grading (if present) should be removed in their entirety. Any associated leach fields or other existing underground improvements should also be removed in their entirety. Debris resultant from demolition should be disposed of off-site. Concrete and asphalt debris may be re-used as compacted fill, provided they are pulverized to a maximum particle size of less than 2 inches and mixed with the on-site soils. Alternatively, existing asphalt and concrete materials may be crushed into miscellaneous base (CMB) and re-used at the site.

Detailed structural information regarding the existing structures has not been provided to our office. Therefore, the foundation systems supporting the existing structures are generally unknown by SCG. We expect that the existing structures are supported on conventional shallow foundations. However, if any of the structures are supported on deep foundations, any existing piles or drilled piers located within the proposed building area should be cut off at a depth of at least 2 feet below the bottom of the planned overexcavation. Where drilled pier or pile foundations are encountered within proposed pavement areas, they should be cut off at a depth of at least 2 feet below the proposed pavement subgrade or at a depth of at least 1 foot below the bottom of any planned utilities.

Initial site stripping should also include removal of any surficial vegetation from the unpaved areas of the site. This should include any weeds, grasses, shrubs, and trees. Root systems associated with the trees should be removed in their entirety, and the resultant excavations should be backfilled with compacted structural fill soils. Any organic materials should be removed and disposed of off-site, or in non-structural areas of the property. The actual extent of site stripping should be determined in the field by the geotechnical engineer, based on the organic content and stability of the materials encountered.

### Treatment of Existing Soils: Building Pad

Remedial grading should be performed within the proposed building area in order to remove the existing undocumented fill soils, any soils disturbed during demolition, and a portion of the near-surface native alluvium. Based on conditions encountered at the boring locations, the existing soils within the proposed building area are recommended to be overexcavated to a depth of at least 5 feet below existing grades and to a depth of at least 3 feet below proposed building pad subgrade elevations, whichever is greater. The depth of the overexcavation should also extend to a depth sufficient to remove all undocumented fill soils and soils disturbed during demolition. Within the influence zones of the new foundations, the overexcavation should extend to a depth of at least 3 feet below proposed foundation bearing grade.

The overexcavation areas should extend at least 5 feet beyond the building and foundation perimeters, and to an extent equal to the depth of fill placed below the foundation bearing grade,

whichever is greater. If the proposed structure incorporates any exterior columns (such as for a canopy or overhang) the area of overexcavation should also encompass these areas.

Following completion of the overexcavation, the subgrade soils within the overexcavation areas should be evaluated by the geotechnical engineer to verify their suitability to serve as the structural fill subgrade, as well as to support the foundation loads of the new structures. This evaluation should include proofrolling and probing to identify any soft, loose or otherwise unstable soils that must be removed. Some localized areas of deeper excavation may be required if additional fill materials or loose, porous, or low-density native soils are encountered at the base of the overexcavation. It should be noted that Boring Nos. B-1 through B-4, located within the proposed building area, encountered loose soils extending to depths of 6½ to 12± feet.

After a suitable overexcavation subgrade has been achieved, the exposed soils should be scarified to a depth of at least 12 inches and moisture treated to 0 to 4 percent above optimum moisture content. The subgrade soils should then be recompacted to at least 90 percent of the ASTM D-1557 maximum dry density. The previously excavated soils may then be replaced as compacted structural fill.

#### Treatment of Existing Soils: Retaining Walls and Site Walls

The existing soils within the areas of any proposed retaining walls and site walls should be overexcavated to a depth of 3 feet below foundation bearing grade and replaced as compacted structural fill as discussed above for the proposed building pad. Any undocumented fill soils or disturbed native alluvium within any of these foundation areas should be removed in their entirety. The overexcavation areas should extend at least 3 feet beyond the foundation perimeters, and to an extent equal to the depth of fill below the new foundations. Any erection pads for tilt-up concrete walls are considered to be part of the foundation system. Therefore, these overexcavation recommendations are applicable to erection pads. The overexcavation subgrade soils should be evaluated by the geotechnical engineer prior to scarifying, moisture conditioning to within 0 to 4 percent above the optimum moisture content, and recompacting the upper 12 inches of exposed subgrade soils. The previously excavated soils may then be replaced as compacted structural fill.

If the full lateral recommended remedial grading cannot be completed for the proposed retaining walls and site walls located along property lines, the foundations for those walls should be designed using a reduced allowable bearing pressure. Furthermore, the contractor should take necessary precautions to protect the adjacent improvements during rough grading. Specialized grading techniques, such as A-B-C slot cuts, will likely be required during remedial grading. The geotechnical engineer of record should be contacted if additional recommendations, such as shoring design recommendations, are required during grading.

#### Treatment of Existing Soils: Flatwork, Parking and Drive Areas

Based on economic considerations, overexcavation of the existing near-surface existing soils in the new flatwork, parking and drive areas is not considered warranted, with the exception of areas where lower strength or unstable soils are identified by the geotechnical engineer during grading. Subgrade preparation in the new flatwork, parking and drive areas should initially consist of removal of all soils disturbed during stripping and demolition operations.

The geotechnical engineer should then evaluate the subgrade to identify any areas of additional unsuitable soils. Any such materials should be removed to a level of firm and unyielding soil. The exposed subgrade soils should then be scarified to a depth of 12± inches, moisture conditioned to 0 to 4 percent above the optimum moisture content, and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density. Based on the presence of variable strength surficial soils throughout the site, it is expected that some isolated areas of additional overexcavation may be required to remove zones of lower strength, unsuitable soils.

The grading recommendations presented above for the proposed flatwork, parking and drive areas assume that the owner and/or developer can tolerate minor amounts of settlement within these areas. The grading recommendations presented above do not mitigate the extent of undocumented fill or compressible/collapsible soils in the flatwork, parking and drive areas. As such, some settlement and associated pavement distress could occur. Typically, repair of such distressed areas involves significantly lower costs than completely mitigating these soils at the time of construction. If the owner cannot tolerate the risk of such settlements, the flatwork, parking and drive areas should be overexcavated to a depth of 2 feet below proposed pavement subgrade elevation, with the resulting soils replaced as compacted structural fill.

#### Fill Placement

- Fill soils should be placed in thin (6± inches), near-horizontal lifts, moisture conditioned to 0 to 4 percent above the optimum moisture content, and compacted.
- On-site soils may be used for fill provided they are cleaned of any debris to the satisfaction of the geotechnical engineer.
- All grading and fill placement activities should be completed in accordance with the requirements of the 2019 CBC and the grading code of the city of Ontario.
- All fill soils should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density.
- Compaction tests should be performed periodically by the geotechnical engineer as random verification of compaction and moisture content. These tests are intended to aid the contractor. Since the tests are taken at discrete locations and depths, they may not be indicative of the entire fill and therefore should not relieve the contractor of his responsibility to meet the job specifications.

#### Imported Structural Fill

All imported structural fill should consist of very low expansive ( $EI < 20$ ), well graded soils possessing at least 10 percent fines (that portion of the sample passing the No. 200 sieve). Additional specifications for structural fill are presented in the Grading Guide Specifications, included as Appendix D.

#### Utility Trench Backfill

In general, all utility trench backfill should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density. As an alternative, a clean sand (minimum Sand Equivalent of 30) may be placed within trenches and compacted in place (jetting or flooding is not recommended). Compacted trench backfill should conform to the requirements of the local grading code, and more restrictive requirements may be indicated by the city of Ontario. All utility trench backfills

should be witnessed by the geotechnical engineer. The trench backfill soils should be compaction tested where possible; probed and visually evaluated elsewhere.

Utility trenches which parallel a footing, and extending below a 1h:1v (horizontal to vertical) plane projected from the outside edge of the footing should be backfilled with structural fill soils, compacted to at least 90 percent of the ASTM D-1557 standard. Pea gravel backfill should not be used for these trenches.

Any soils used to backfill voids around subsurface utility structures, such as manholes or vaults, should be placed as compacted structural fill. If it is not practical to place compacted fill in these areas, then such void spaces may be backfilled with lean concrete slurry. Uncompacted pea gravel or sand is not recommended for backfilling these voids since these materials have a potential to settle and thereby cause distress of pavements placed around these subterranean structures.

## 6.4 Construction Considerations

### Excavation Considerations

The near-surface soils generally consist of sands and silty sands. These materials may be subject to moderate caving within shallow excavations. Where caving does occur, flattened excavation slopes may be sufficient to provide excavation stability. On a preliminary basis, the inclination of temporary slopes should not exceed 2h:1v. Deeper excavations may require some form of external stabilization such as shoring or bracing. Maintaining adequate moisture content within the near-surface soils will improve excavation stability. All excavation activities on this site should be conducted in accordance with Cal-OSHA regulations.

### Groundwater

The static groundwater table is considered to have existed at a depth in excess of 30± feet at the time of the subsurface exploration. Therefore, groundwater is not expected to impact the grading or foundation construction activities.

## 6.5 Foundation Design and Construction

Based on the preceding grading recommendations, it is assumed that the new building pad will be underlain by structural fill soils used to replace existing undocumented fill soils and a portion of the near-surface alluvial soils. These new structural fill soils are expected to extend to a depth of at least 3 feet below proposed foundation bearing grade, underlain by 1± foot of additional soil that has been densified and moisture conditioned in place. Based on this subsurface profile, the proposed structure may be supported on conventional shallow foundations.

### Foundation Design Parameters

New square and rectangular footings may be designed as follows:

- Maximum, net allowable soil bearing pressure: 2,500 lbs/ft<sup>2</sup>.

- Maximum, net allowable soil bearing pressure: 1,500 lbs/ft<sup>2</sup> if the full recommended lateral extent of remedial grading cannot be achieved, typically for new footings along the property lines.
- Minimum wall/column footing width: 14 inches/24 inches.
- Minimum longitudinal steel reinforcement within strip footings: Two (2) No. 5 rebars (1 top and 1 bottom).
- Minimum foundation embedment: 12 inches into suitable structural fill soils, and at least 18 inches below adjacent exterior grade. Interior column footings may be placed immediately beneath the floor slab.
- It is recommended that the perimeter building foundations be continuous across all exterior doorways. Any flatwork adjacent to the exterior doors should be doweled into the perimeter foundations in a manner determined by the structural engineer.

The allowable bearing pressures presented above may be increased by 1/3 when considering short duration wind or seismic loads. The minimum steel reinforcement recommended above is based on geotechnical considerations; additional reinforcement may be necessary for structural considerations. The actual design of the foundations should be determined by the structural engineer.

### Foundation Construction

The foundation subgrade soils should be evaluated at the time of overexcavation, as discussed in Section 6.3 of this report. It is further recommended that the foundation subgrade soils be evaluated by the geotechnical engineer immediately prior to steel or concrete placement. Soils suitable for direct foundation support should consist of newly placed structural fill, compacted to at least 90 percent of the ASTM D-1557 maximum dry density. Any unsuitable materials should be removed to a depth of suitable bearing compacted structural fill or suitable native alluvium (where reduced bearing pressures are utilized), with the resulting excavations backfilled with compacted fill soils. As an alternative, lean concrete slurry (500 to 1,500 psi) may be used to backfill such isolated overexcavations.

The foundation subgrade soils should also be properly moisture conditioned to 0 to 4 percent above the Modified Proctor optimum, to a depth of at least 12 inches below bearing grade. Since it is typically not feasible to increase the moisture content of the floor slab and foundation subgrade soils once rough grading has been completed, care should be taken to maintain the moisture content of the building pad subgrade soils throughout the construction process.

### Estimated Foundation Settlements

Post-construction total and differential settlements of shallow foundations designed and constructed in accordance with the previously presented recommendations are estimated to be less than 1.0 and 0.5 inches, respectively. Differential movements are expected to occur over a 30-foot span, thereby resulting in an angular distortion of less than 0.002 inches per inch.



## Lateral Load Resistance

Lateral load resistance will be developed by a combination of friction acting at the base of foundations and slab and the passive earth pressure developed by footings below grade. The following friction and passive pressure may be used to resist lateral forces:

- Passive Earth Pressure: 300 lbs/ft<sup>3</sup>
- Friction Coefficient: 0.30

These are allowable values, and include a factor of safety. When combining friction and passive resistance, the passive pressure component should be reduced by one-third. These values assume that footings will be poured directly against compacted structural fill soils. The maximum allowable passive pressure is 3,000 lbs/ft<sup>2</sup>.

## 6.6 Floor Slab Design and Construction

Subgrades which will support the new floor slab should be prepared in accordance with the recommendations contained in the *Site Grading Recommendations* section of this report. Based on the anticipated grading which will occur at this site, the floor of the proposed structure may be constructed as a conventional slab-on-grade supported on newly placed structural fill, extending to a depth of at least 3 feet below finished pad grades. Based on geotechnical considerations, the floor slab may be designed as follows:

- Minimum slab thickness: 6 inches.
- Modulus of Subgrade Reaction:  $k = 150$  psi/in.
- Minimum slab reinforcement: Reinforcement is not considered necessary from a geotechnical standpoint. The actual floor slab reinforcement should be determined by the structural engineer, based on the imposed slab loading.
- Slab underlayment: If moisture sensitive floor coverings will be used then minimum slab underlayment should consist of a moisture vapor barrier constructed below the entire area of the proposed slab where such moisture sensitive floor coverings are anticipated. The moisture vapor barrier should meet or exceed the Class A rating as defined by ASTM E 1745-97 and have a permeance rating less than 0.01 perms as described in ASTM E 96-95 and ASTM E 154-88. A polyolefin material such as Stego® Wrap Vapor Barrier or equivalent will meet these specifications. The moisture vapor barrier should be properly constructed in accordance with all applicable manufacturer specifications. Given that a rock free subgrade is anticipated and that a capillary break is not required, sand below the barrier is not required. The need for sand and/or the amount of sand above the moisture vapor barrier should be specified by the structural engineer or concrete contractor. The selection of sand above the barrier is not a geotechnical engineering issue and hence outside our purview. Where moisture sensitive floor coverings are not anticipated, the vapor barrier may be eliminated.
- Moisture condition the floor slab subgrade soils to 0 to 4 percent above the Modified Proctor optimum moisture content, to a depth of 12 inches. The moisture content of the

floor slab subgrade soils should be verified by the geotechnical engineer within 24 hours prior to concrete placement.

- Proper concrete curing techniques should be utilized to reduce the potential for slab curling or the formation of excessive shrinkage cracks.

The actual design of the floor slab should be completed by the structural engineer to verify adequate thickness and reinforcement.

## 6.7 Retaining Wall Design and Construction

Although not indicated on the site plans, some small (less than 6 feet in height) retaining walls may be required to facilitate the new site grades. The parameters recommended for use in the design of these walls are presented below.

### Retaining Wall Design Parameters

Based on the soil conditions encountered at the boring locations, the following parameters may be used in the design of new retaining walls for this site. The following parameters assume that only the on-site soils will be utilized for retaining wall backfill. The near-surface soils generally consist of sands and silty sands. Based on their classification, these materials are expected to possess a friction angle of at least 30 degrees when compacted to at least 90 percent of the ASTM D-1557 maximum dry density.

If desired, SCG could provide design parameters for an alternative select backfill material behind the retaining walls. The use of select backfill material could result in lower lateral earth pressures. In order to use the design parameters for the imported select fill, this material must be placed within the entire active failure wedge. This wedge is defined as extending from the heel of the retaining wall upwards at an angle of approximately 60° from horizontal. If select backfill material behind the retaining wall is desired, SCG should be contacted for supplementary recommendations.

### RETAINING WALL DESIGN PARAMETERS

Design Parameter		Soil Type
		On-site Sands and Silty Sands
Internal Friction Angle ( $\phi$ )		30°
Unit Weight		127 lbs/ft <sup>3</sup>
Equivalent Fluid Pressure:	Active Condition (level backfill)	42 lbs/ft <sup>3</sup>
	Active Condition (2h:1v backfill)	68 lbs/ft <sup>3</sup>
	At-Rest Condition (level backfill)	64 lbs/ft <sup>3</sup>

The walls should be designed using a soil-footing coefficient of friction of 0.30 and an equivalent passive pressure of 300 lbs/ft<sup>3</sup>. The structural engineer should incorporate appropriate factors of safety in the design of the retaining walls.

The active earth pressure may be used for the design of retaining walls that do not directly support structures or support soils that in turn support structures and which will be allowed to deflect. The at-rest earth pressure should be used for walls that will not be allowed to deflect such as those which will support foundation bearing soils, or which will support foundation loads directly.

Where the soils on the toe side of the retaining wall are not covered by a "hard" surface such as a structure or pavement, the upper 1 foot of soil should be neglected when calculating passive resistance due to the potential for the material to become disturbed or degraded during the life of the structure.

#### Seismic Lateral Earth Pressures

In accordance with the 2019 CBC, any retaining walls more than 6 feet in height must be designed for seismic lateral earth pressures. If walls 6 feet or more are required for this site, the geotechnical engineer should be contacted for supplementary seismic lateral earth pressure recommendations.

#### Retaining Wall Foundation Design

The retaining wall foundations should be underlain by at least 3 feet of newly placed structural fill. Foundations to support new retaining walls should be designed in accordance with the general Foundation Design Parameters presented in a previous section of this report.

#### Backfill Material

On-site soils may be used to backfill the retaining walls. However, all backfill material placed within 3 feet of the back wall face should have a particle size no greater than 3 inches. The retaining wall backfill materials should be well graded.

It is recommended that a minimum 1-foot thick layer of free-draining granular material (less than 5 percent passing the No. 200 sieve) be placed against the face of the retaining walls. This material should extend from the top of the retaining wall footing to within 1 foot of the ground surface on the back side of the retaining wall. This material should be approved by the geotechnical engineer. In lieu of the 1-foot thick layer of free-draining material, a properly installed prefabricated drainage composite such as the MiraDRAIN 6000XL (or approved equivalent), which is specifically designed for use behind retaining walls, may be used. If the layer of free-draining material is not covered by an impermeable surface, such as a structure or pavement, a 12-inch thick layer of a low permeability soil should be placed over the backfill to reduce surface water migration to the underlying soils. The layer of free draining granular material should be separated from the backfill soils by a suitable geotextile, approved by the geotechnical engineer.

All retaining wall backfill should be placed and compacted under engineering controlled conditions in the necessary layer thicknesses to ensure an in-place density between 90 and 93 percent of

the maximum dry density as determined by the Modified Proctor test (ASTM D1557-91). Care should be taken to avoid over-compaction of the soils behind the retaining walls, and the use of heavy compaction equipment should be avoided.

### Subsurface Drainage

As previously indicated, the retaining wall design parameters are based upon drained backfill conditions. Consequently, some form of permanent drainage system will be necessary in conjunction with the appropriate backfill material. Subsurface drainage may consist of either:

- A weep hole drainage system typically consisting of a series of 2-inch diameter holes in the wall situated slightly above the ground surface elevation on the exposed side of the wall and at an approximate 10-foot on-center spacing. Alternatively, 4-inch diameter holes at an approximate 20-foot on-center spacing can be used for this type of drainage system. In addition, the weep holes should include a 2 cubic foot pocket of open graded gravel, surrounded by an approved geotextile fabric, at each weep hole location.
- A 4-inch diameter perforated pipe surrounded by 2 cubic feet of gravel per linear foot of drain placed behind the wall, above the retaining wall footing. The gravel layer should be wrapped in a suitable geotextile fabric to reduce the potential for migration of fines. The footing drain should be extended to daylight or tied into a storm drainage system. The actual design of this type of system should be determined by the civil engineer to verify that the drainage system possesses the adequate capacity and slope for its intended use.

Weep holes or a footing drain will not be required for building stem walls.

## 6.8 Pavement Design Parameters

Site preparation in the pavement area should be completed as previously recommended in the *Site Grading Recommendations* section of this report. The subsequent pavement recommendations assume proper drainage and construction monitoring, and are based on either PCA or CALTRANS design parameters for a twenty (20) year design period. However, these designs also assume a routine pavement maintenance program to obtain the anticipated 20-year pavement service life.

### Pavement Subgrades

It is anticipated that the new pavements will be primarily supported on a layer of compacted structural fill, consisting of scarified, thoroughly moisture conditioned and recompacted existing soils. The near-surface soils generally consist of sands and silty sands. These soils are generally considered to possess good to excellent pavement support characteristics, with R-values in the range of 40 to 60. The subsequent pavement design is therefore based upon an assumed R-value of 40. Any fill material imported to the site should have support characteristics equal to or greater than that of the on-site soils and be placed and compacted under engineering controlled conditions. It is recommended that R-value testing be performed after completion of rough grading to verify that the pavement design recommendations presented herein are valid.

## Asphaltic Concrete

Presented below are the recommended thicknesses for new flexible pavement structures consisting of asphaltic concrete over a granular base. The pavement designs are based on the **traffic indices (TI's) indicated. The client and/or civil engineer should verify that these TI's are representative of the anticipated traffic volumes.** If the client and/or civil engineer determine that the expected traffic volume will exceed the applicable traffic index, we should be contacted for supplementary recommendations. The design traffic indices equate to the following approximate daily traffic volumes over a 20-year design life, assuming six operational traffic days per week.

Traffic Index	No. of Heavy Trucks per Day
4.0	0
5.0	1
6.0	3
7.0	11
8.0	35
9.0	93

For the purpose of the traffic volumes indicated above, a truck is defined as a 5-axle tractor trailer unit with one 8-kip axle and two 32-kip tandem axles. All of the traffic indices allow for 1,000 automobiles per day.

ASPHALT PAVEMENTS (R = 40)					
Materials	Thickness (inches)				
	Auto Parking and Auto Drive Lanes (TI = 4.0 to 5.0)	Truck Traffic			
		TI = 6.0	TI = 7.0	TI = 8.0	TI = 9.0
Asphalt Concrete	3	3½	4	5	5½
Aggregate Base	4	6	7	8	10
Compacted Subgrade	12	12	12	12	12

The aggregate base course should be compacted to at least 95 percent of the ASTM D-1557 maximum dry density. The asphaltic concrete should be compacted to at least 95 percent of the batch plant-reported maximum density. The aggregate base course may consist of crushed aggregate base (CAB) or crushed miscellaneous base (CMB), which is a recycled gravel, asphalt and concrete material. The gradation, R-Value, Sand Equivalent, and Percentage Wear of the CAB or CMB should comply with appropriate specifications contained in the current edition of the **"Greenbook"** Standard Specifications for Public Works Construction.

## Portland Cement Concrete

The preparation of the subgrade soils within concrete pavement areas should be performed as previously described for proposed asphalt pavement areas. The minimum recommended thicknesses for the Portland Cement Concrete pavement sections are as follows:

PORTLAND CEMENT CONCRETE PAVEMENTS (R = 40)				
Materials	Thickness (inches)			
	Autos and Light Truck Traffic (TI = 6.0)	Truck Traffic Areas		
		TI =7.0	TI =8.0	TI =9.0
PCC	5	5½	6½	8
Compacted Subgrade (95% minimum compaction)	12	12	12	12

The concrete should have a 28-day compressive strength of at least 3,000 psi. The maximum joint spacing within all of the PCC pavements is recommended to be equal to or less than 30 times the pavement thickness. Any reinforcement within the PCC pavements should be determined by the project structural engineer.

## 7.0 GENERAL COMMENTS

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This report has been prepared as an instrument of service for use by the client, in order to aid in the evaluation of this property and to assist the architects and engineers in the design and preparation of the project plans and specifications. This report may be provided to the contractor(s) and other design consultants to disclose information relative to the project. However, this report is not intended to be utilized as a specification in and of itself, without appropriate interpretation by the project architect, civil engineer, and/or structural engineer. The reproduction and distribution of this report must be authorized by the client and Southern California Geotechnical, Inc. Furthermore, any reliance on this report by an unauthorized third party is at such party's sole risk, and we accept no responsibility for damage or loss which may occur. **The client(s)' reliance upon this report is subject to the** Engineering Services Agreement, incorporated into our proposal for this project.

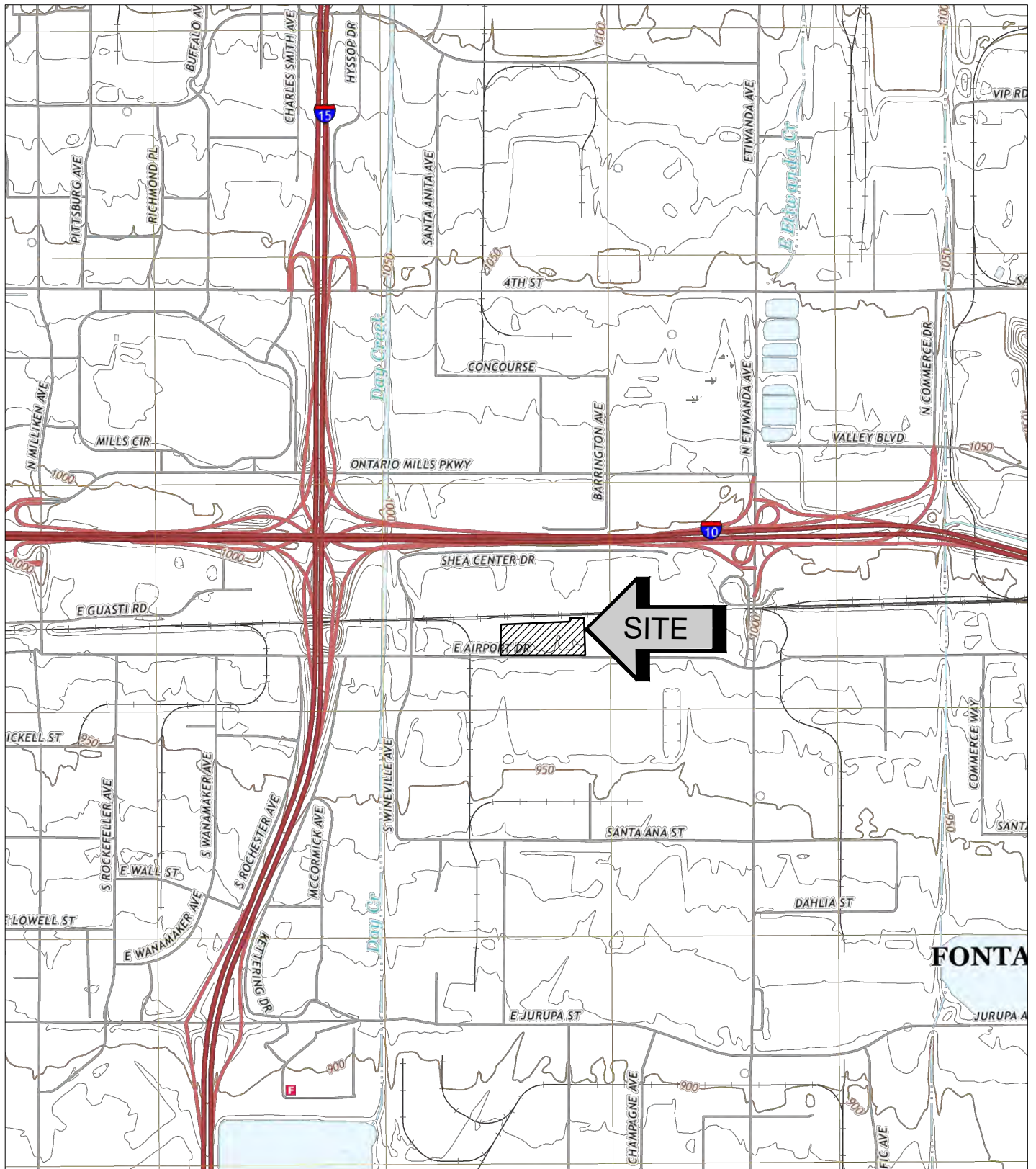
The analysis of this site was based on a subsurface profile interpolated from limited discrete soil samples. While the materials encountered in the project area are considered to be representative of the total area, some variations should be expected between boring locations and sample depths. If the conditions encountered during construction vary significantly from those detailed herein, we should be contacted immediately to determine if the conditions alter the recommendations contained herein.

This report has been based on assumed or provided characteristics of the proposed development. It is recommended that the owner, client, architect, structural engineer, and civil engineer carefully review these assumptions to ensure that they are consistent with the characteristics of the proposed development. If discrepancies exist, they should be brought to our attention to verify that they do not affect the conclusions and recommendations contained herein. We also recommend that the project plans and specifications be submitted to our office for review to verify that our recommendations have been correctly interpreted.

The analysis, conclusions, and recommendations contained within this report have been promulgated in accordance with generally accepted professional geotechnical engineering practice. No other warranty is implied or expressed.

# APPENDIX A

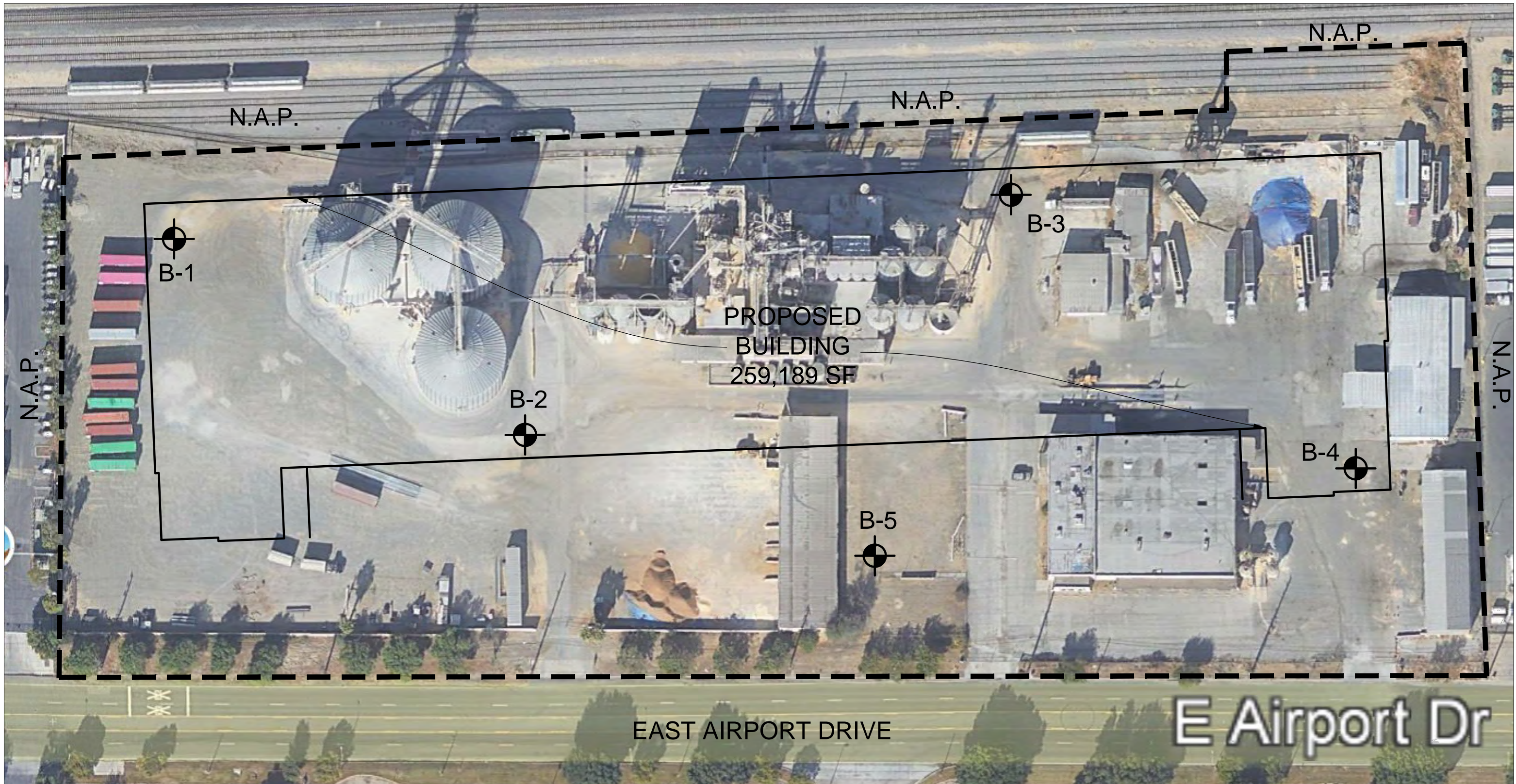




SOURCE: USGS TOPOGRAPHIC MAP OF THE GUASTI QUADRANGLE, SAN BERNARDINO COUNTY, CALIFORNIA, 2021.



<b>SITE LOCATION MAP</b>	
PROPOSED WAREHOUSE	
ONTARIO, CALIFORNIA	
SCALE: 1" = 2000'	
DRAWN: JLL	
CHKD: RGT	
SCG PROJECT 22G128-1	
PLATE 1	<b>SOUTHERN CALIFORNIA GEOTECHNICAL</b>



**GEOTECHNICAL LEGEND**

 APPROXIMATE BORING LOCATION

 PROPERTY LINE



NOTE: PRELIMINARY SITE PLAN PREPARED BY RGA.  
AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH.

**BORING LOCATION PLAN**

PROPOSED WAREHOUSE  
ONTARIO, CALIFORNIA

SCALE: 1" = 80'

DRAWN: JLL  
CHKD: RGT  
SCG PROJECT  
22G128-1


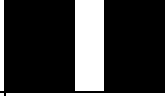

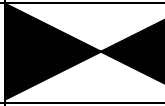

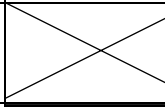


PLATE 2



**SOUTHERN CALIFORNIA GEOTECHNICAL**

# APPENDIX B

# BORING LOG LEGEND

SAMPLE TYPE	GRAPHICAL SYMBOL	SAMPLE DESCRIPTION
AUGER		SAMPLE COLLECTED FROM AUGER CUTTINGS, NO FIELD MEASUREMENT OF SOIL STRENGTH. (DISTURBED)
CORE		ROCK CORE SAMPLE: TYPICALLY TAKEN WITH A DIAMOND-TIPPED CORE BARREL. TYPICALLY USED ONLY IN HIGHLY CONSOLIDATED BEDROCK.
GRAB		SOIL SAMPLE TAKEN WITH NO SPECIALIZED EQUIPMENT, SUCH AS FROM A STOCKPILE OR THE GROUND SURFACE. (DISTURBED)
CS		CALIFORNIA SAMPLER: 2-1/2 INCH I.D. SPLIT BARREL SAMPLER, LINED WITH 1-INCH HIGH BRASS RINGS. DRIVEN WITH SPT HAMMER. (RELATIVELY UNDISTURBED)
NSR		NO RECOVERY: THE SAMPLING ATTEMPT DID NOT RESULT IN RECOVERY OF ANY SIGNIFICANT SOIL OR ROCK MATERIAL.
SPT		STANDARD PENETRATION TEST: SAMPLER IS A 1.4 INCH INSIDE DIAMETER SPLIT BARREL, DRIVEN 18 INCHES WITH THE SPT HAMMER. (DISTURBED)
SH		SHELBY TUBE: TAKEN WITH A THIN WALL SAMPLE TUBE, PUSHED INTO THE SOIL AND THEN EXTRACTED. (UNDISTURBED)
VANE		VANE SHEAR TEST: SOIL STRENGTH OBTAINED USING A 4 BLADED SHEAR DEVICE. TYPICALLY USED IN SOFT CLAYS-NO SAMPLE RECOVERED.

## COLUMN DESCRIPTIONS

### DEPTH:

Distance in feet below the ground surface.

### SAMPLE:

Sample Type as depicted above.

### BLOW COUNT:

Number of blows required to advance the sampler 12 inches using a 140 lb hammer with a 30-inch drop. 50/3" indicates penetration refusal (>50 blows) at 3 inches. WH indicates that the weight of the hammer was sufficient to push the sampler 6 inches or more.

### POCKET PEN.:

Approximate shear strength of a cohesive soil sample as measured by pocket penetrometer.

### GRAPHIC LOG:

Graphic Soil Symbol as depicted on the following page.

### DRY DENSITY:

Dry density of an undisturbed or relatively undisturbed sample in lbs/ft<sup>3</sup>.

### MOISTURE CONTENT:

Moisture content of a soil sample, expressed as a percentage of the dry weight.

### LIQUID LIMIT:

The moisture content above which a soil behaves as a liquid.

### PLASTIC LIMIT:

The moisture content above which a soil behaves as a plastic.

### PASSING #200 SIEVE:

The percentage of the sample finer than the #200 standard sieve.

### UNCONFINED SHEAR:

The shear strength of a cohesive soil sample, as measured in the unconfined state.

# SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS		
			GRAPH	LETTER			
<p><b>COARSE GRAINED SOILS</b></p> <p>MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE</p>	<p><b>GRAVEL AND GRAVELLY SOILS</b></p>	<p>CLEAN GRAVELS</p> <p>(LITTLE OR NO FINES)</p>		<b>GW</b>	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES		
		<p>GRAVELS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		<b>GP</b>	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES		
		<p>MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE</p>	<p>GRAVELS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		<b>GM</b>	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES	
		<p>MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE</p>	<p>GRAVELS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		<b>GC</b>	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES	
	<p><b>SAND AND SANDY SOILS</b></p>	<p>CLEAN SANDS</p> <p>(LITTLE OR NO FINES)</p>		<b>SW</b>	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES		
				<b>SP</b>	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES		
		<p>MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE</p>	<p>SANDS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		<b>SM</b>	SILTY SANDS, SAND - SILT MIXTURES	
					<b>SC</b>	CLAYEY SANDS, SAND - CLAY MIXTURES	
			<p><b>FINE GRAINED SOILS</b></p> <p>MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE</p>	<p><b>SILTS AND CLAYS</b></p> <p>LIQUID LIMIT LESS THAN 50</p>		<b>ML</b>	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
						<b>CL</b>	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
	<b>OL</b>	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY					
<p><b>SILTS AND CLAYS</b></p> <p>LIQUID LIMIT GREATER THAN 50</p>		<b>MH</b>		INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS			
		<b>CH</b>		INORGANIC CLAYS OF HIGH PLASTICITY			
		<b>OH</b>		ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS			
<p><b>HIGHLY ORGANIC SOILS</b></p>				<b>PT</b>	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS		

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS



JOB NO.: 22G128-1	DRILLING DATE: 2/10/22	WATER DEPTH: Dry
PROJECT: Proposed Warehouse	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: 23 feet
LOCATION: Ontario, California	LOGGED BY: Joseph Lozano Leon	READING TAKEN: At Completion

FIELD RESULTS				GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)			DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	
SURFACE ELEVATION: --- MSL												
				2± inches Aggregate Base								
		23		FILL: Light Gray Brown Silty fine to medium Sand, trace coarse Sand, loose to medium dense-dry to damp	106	2						
		12			99	3						
5		7		ALLUVIUM: Light Gray Brown fine Sand, little medium to coarse Sand, little Silt, trace fine Gravel, loose-damp	100	3						
		18		Light Gray Brown fine to medium Sand, trace to little coarse Sand, trace to little Silt, trace fine Gravel, medium dense-damp	106	2						
10		12		@ 9 feet, loose	100	3						
		47		Brown Silty fine Sand to fine Sandy Silt, little medium Sand, trace coarse Sand, dense-damp to moist	112	9						
		21		Light Gray Brown to Gray Brown fine Sand, little medium Sand, little Silt, medium dense-damp		4						
20		24		Brown Silty fine Sand to fine Sandy Silt, trace to little medium Sand, medium dense-moist		14						
25		33		Light Brown to Brown Silty fine Sand, trace Silt nodules, dense-damp		7						
30				Boring Terminated at 30'								

TBL\_22G128-1.GPJ\_SOCALGEO.GDT\_3/9/22



JOB NO.: 22G128-1	DRILLING DATE: 2/10/22	WATER DEPTH: Dry
PROJECT: Proposed Warehouse	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: 16 feet
LOCATION: Ontario, California	LOGGED BY: Joseph Lozano Leon	READING TAKEN: At Completion

FIELD RESULTS				GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)			DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	
SURFACE ELEVATION: --- MSL												
				1± inch Aggregate Base								
		20		FILL: Light Gray Brown fine Sand, little Silt, trace medium Sand, loose to medium dense-moist							No Sample Recovery	
		8		FILL: Brown to Dark Brown Silty fine Sand, trace medium to coarse Sand, loose-moist	95	13						
5		12		ALLUVIUM: Brown Silty fine Sand, trace medium to coarse Sand, medium dense-damp	108	10						
		19		Brown Silty fine to medium Sand, trace to little coarse Sand, trace Silt nodules, trace fine Gravel, medium dense-moist	108	7						
10		26		Brown fine to medium Sand, trace coarse Sand, trace to little Silt, medium dense-damp	117	11						
		26				4						
15												
		19				4						
20												
Boring Terminated at 20'												

TBL\_22G128-1.GPJ\_SOCALGEO.GDT\_3/9/22



JOB NO.: 22G128-1	DRILLING DATE: 2/10/22	WATER DEPTH: Dry
PROJECT: Proposed Warehouse	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: 15.5 feet
LOCATION: Ontario, California	LOGGED BY: Joseph Lozano Leon	READING TAKEN: At Completion

FIELD RESULTS				GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)			DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	
SURFACE ELEVATION: --- MSL												
				2½± inches Asphaltic Concrete, 3½± inches Aggregate Base								
	X	41		FILL: Light Gray Brown fine Sand, little medium Sand, little Silt, trace fine Gravel, medium dense-damp	109	6						
	X	18		FILL: Gray Brown fine Sand, little medium Sand, trace coarse Sand, little Silt, medium dense-damp	101	4						
5	X	16		@ 5 feet, moist	96	10						
	X	21		ALLUVIUM: Gray fine to medium Sand, trace coarse Sand, trace to little Silt, medium dense-dry to damp	99	2						
10	X	11		Gray fine Sandy Silt, trace medium to coarse Sand, loose-moist to very moist	94	19						
	X	67/11*		@ 14 feet, very dense	105	13						
15	X			Gray to dark Gray Silty fine to medium Sand, little coarse Sand, very dense-moist								
	X	12		Brown Silty fine Sand to fine Sandy Silt, trace medium Sand, medium dense-moist		13						
20	X			Boring Terminated at 20'								

TBL\_22G128-1.GPJ\_SOCALGEO.GDT\_3/9/22





JOB NO.: 22G128-1	DRILLING DATE: 2/10/22	WATER DEPTH: Dry
PROJECT: Proposed Warehouse	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: 18 feet
LOCATION: Ontario, California	LOGGED BY: Joseph Lozano Leon	READING TAKEN: At Completion

FIELD RESULTS				GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)			DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	
SURFACE ELEVATION: --- MSL												
				2± inches Asphaltic Concrete, 3± inches Aggregate Base								
				FILL: Gray Brown Silty fine Sand, little medium Sand, trace coarse Sand, trace fine Gravel, medium dense-damp	114	4						
				ALLUVIUM: Gray Brown fine Sand, little medium Sand, trace coarse Sand, trace to little Silt, loose-damp to moist	104	8						
5				Gray Brown fine Sand, little Silt, loose-dry to damp	102	2						
				Brown Silty fine Sand, trace to little medium Sand, medium dense-damp	101	3						
10				@ 13½ feet, trace coarse Sand, trace fine Gravel, moist	102	5						
15				@ 18½ feet, dense		8						
20				Gray Brown fine to coarse Sand, little fine Gravel, trace to little Silt, medium dense-dry to damp		2					No Sample Recovery	
25				Boring Terminated at 25'								

TBL 22G128-1.GPJ\_SOCALGEO.GDT 3/9/22



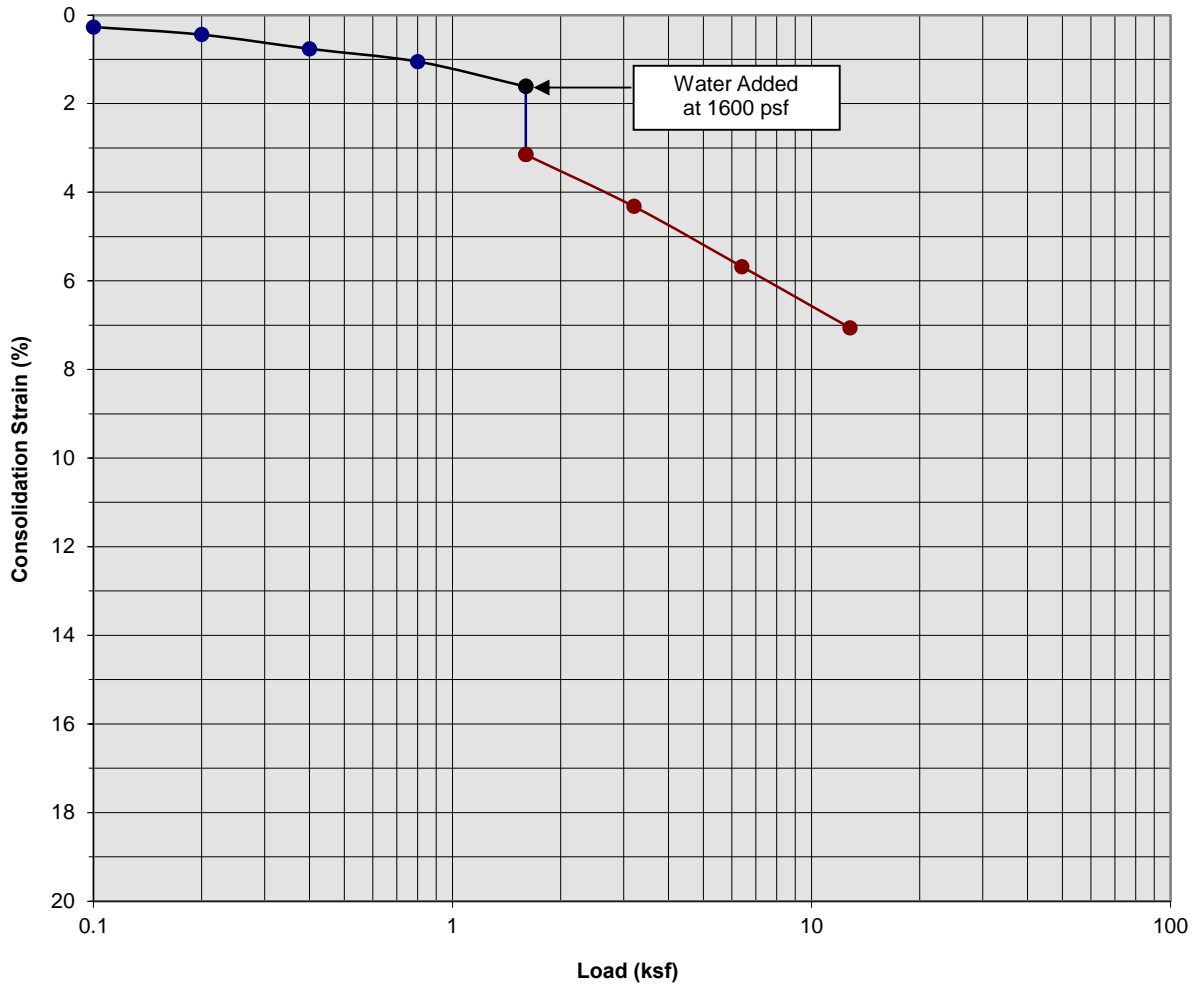
JOB NO.: 22G128-1	DRILLING DATE: 2/10/22	WATER DEPTH: Dry
PROJECT: Proposed Warehouse	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: 16.5 feet
LOCATION: Ontario, California	LOGGED BY: Joseph Lozano Leon	READING TAKEN: At Completion

FIELD RESULTS				GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)			DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	
SURFACE ELEVATION: --- MSL												
					FILL: Brown Silty fine Sand, little medium Sand, trace coarse Sand, medium dense-moist							
		25			@ 3½ feet, dense							
5		40			ALLUVIUM: Brown fine Sand, little medium to coarse Sand, little Silt, medium dense-damp to moist							
		12										
		23			@ 9½ feet, little Gravel							
10												
		9			Gray Brown fine to medium Sand, trace coarse Sand, little Silt nodules, loose-very moist							
15												
		32			Brown fine to coarse Sand, little Silt, little fine Gravel, dense-damp							
20												
					Boring Terminated at 20'							

TBL 22G128-1.GPJ\_SOCALGEO.GDT 3/9/22

# A P P E N D I X C

### Consolidation/Collapse Test Results



Classification: FILL: Light Gray Brown Silty fine to medium Sand, trace coarse Sand

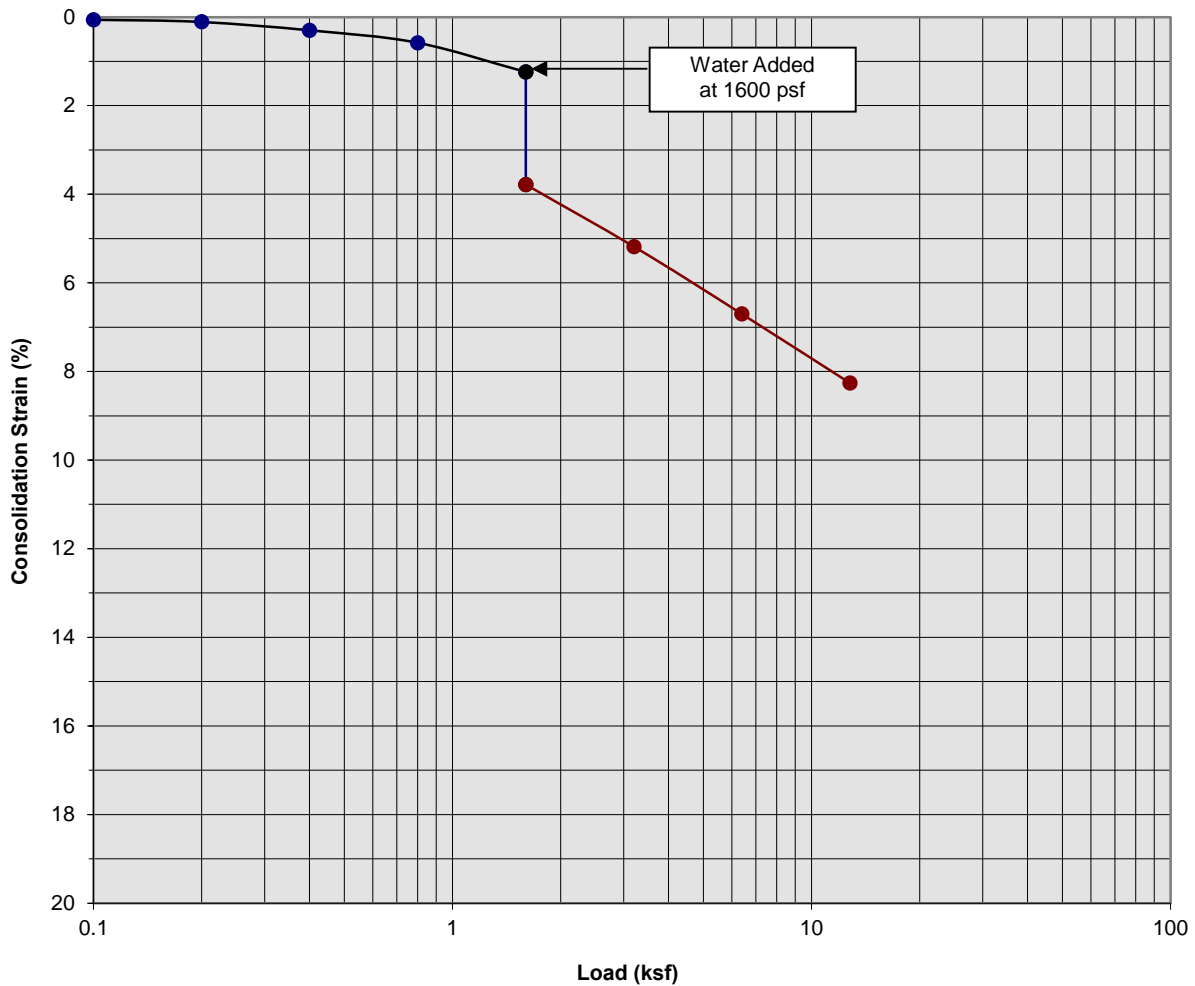
Boring Number:	B-1	Initial Moisture Content (%)	3
Sample Number:	---	Final Moisture Content (%)	16
Depth (ft)	3 to 4	Initial Dry Density (pcf)	99.0
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	105.8
Specimen Thickness (in)	1.0	Percent Collapse (%)	1.54

Proposed Warehouse  
 Ontario, California  
 Project No. 22G128-1  
**PLATE C- 1**



**SOUTHERN CALIFORNIA GEOTECHNICAL**  
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### Consolidation/Collapse Test Results



Classification: Light Gray Brown fine Sand, little medium to coarse Sand, little Silt

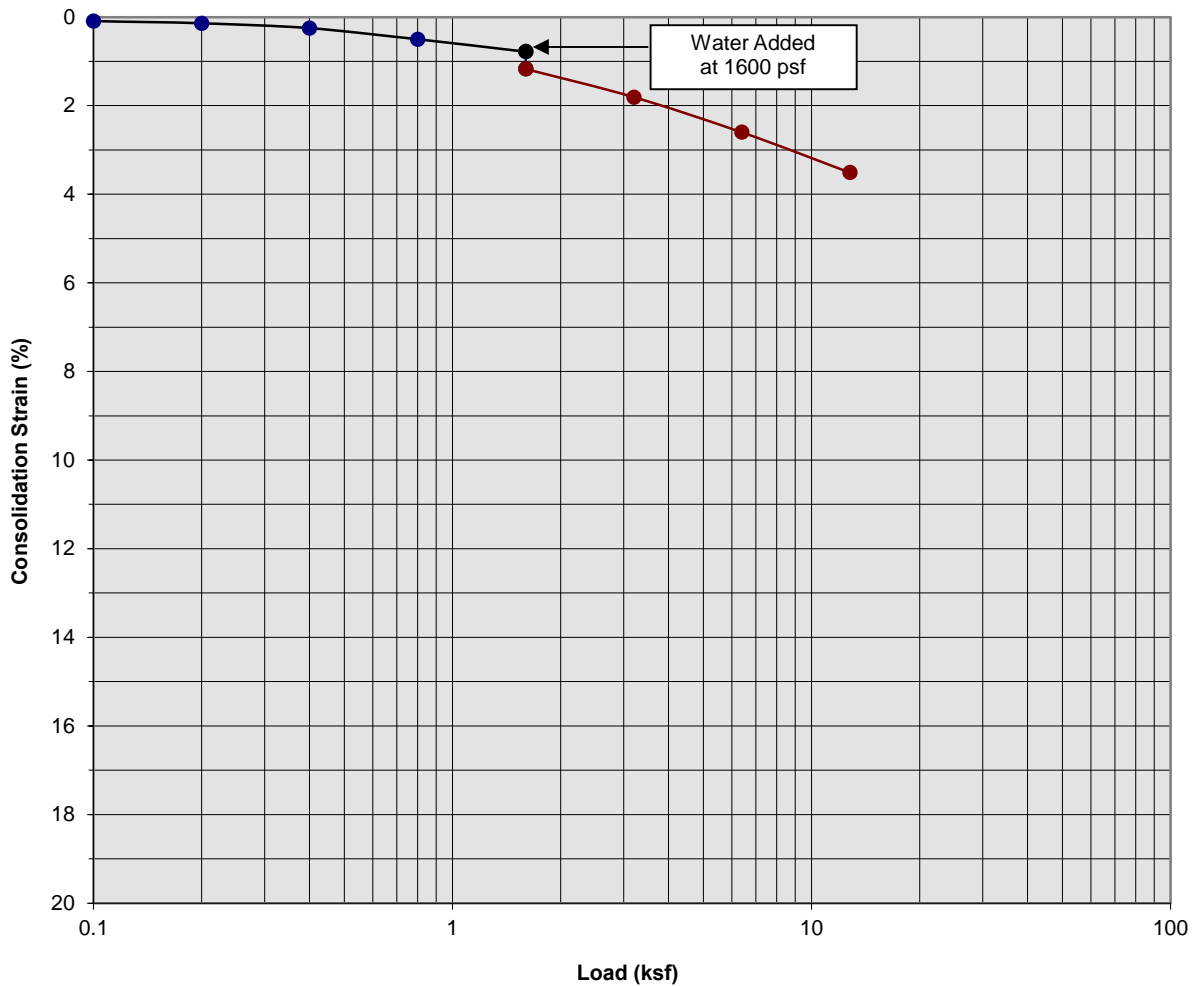
Boring Number:	B-1	Initial Moisture Content (%)	3
Sample Number:	---	Final Moisture Content (%)	15
Depth (ft)	5 to 6	Initial Dry Density (pcf)	100.3
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	108.5
Specimen Thickness (in)	1.0	Percent Collapse (%)	2.54

Proposed Warehouse  
 Ontario, California  
 Project No. 22G128-1  
**PLATE C- 2**



**SOUTHERN CALIFORNIA GEOTECHNICAL**  
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### Consolidation/Collapse Test Results



Classification: Light Gray Brown fine to medium Sand, trace to little coarse Sand

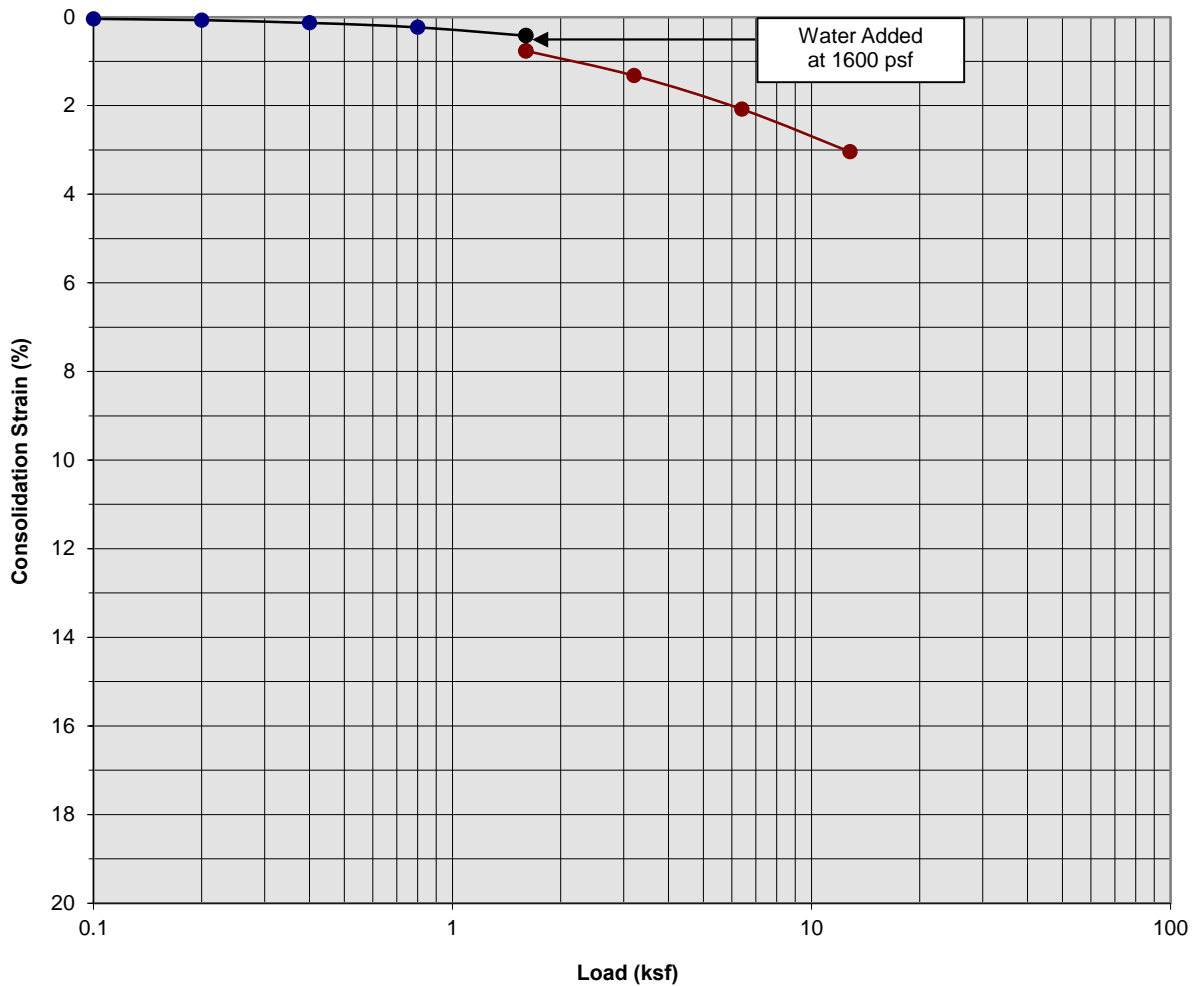
Boring Number:	B-1	Initial Moisture Content (%)	2
Sample Number:	---	Final Moisture Content (%)	17
Depth (ft)	7 to 8	Initial Dry Density (pcf)	106.3
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	109.4
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.39

Proposed Warehouse  
 Ontario, California  
 Project No. 22G128-1  
**PLATE C- 3**



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 CALIFORNIA  
 GEOTECHNICAL**  
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### Consolidation/Collapse Test Results



Classification: Light Gray Brown fine to medium Sand, trace to little coarse Sand

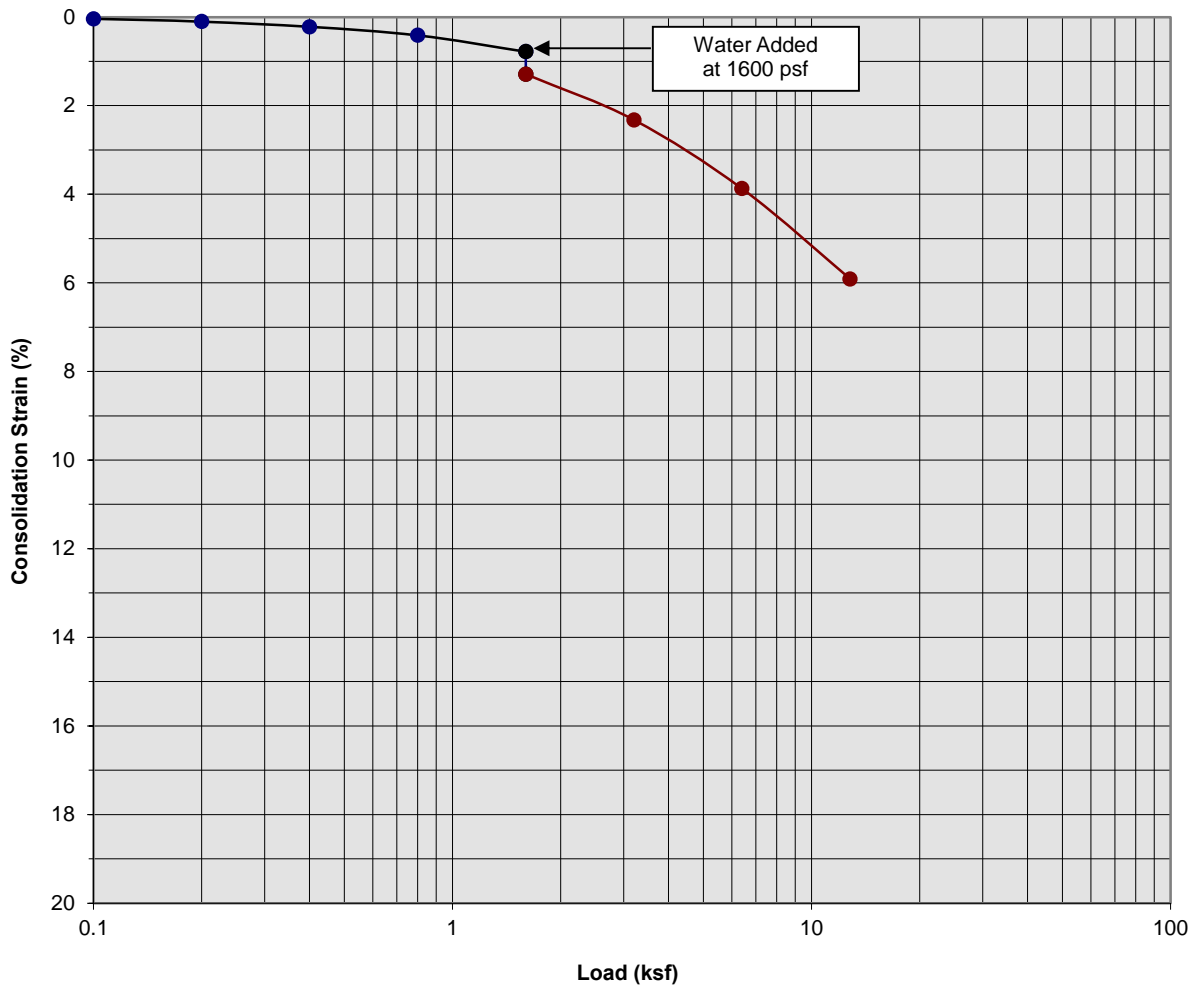
Boring Number:	B-1	Initial Moisture Content (%)	3
Sample Number:	---	Final Moisture Content (%)	19
Depth (ft)	9 to 10	Initial Dry Density (pcf)	100.2
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	103.2
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.34

Proposed Warehouse  
 Ontario, California  
 Project No. 22G128-1  
**PLATE C- 4**



**SOUTHERN CALIFORNIA GEOTECHNICAL**  
*A California Corporation*

### Consolidation/Collapse Test Results



Classification: Gray Brown fine Sand, little medium Sand, trace to little Silt

Boring Number:	B-4	Initial Moisture Content (%)	8
Sample Number:	---	Final Moisture Content (%)	19
Depth (ft)	3 to 4	Initial Dry Density (pcf)	104.3
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	110.4
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.51

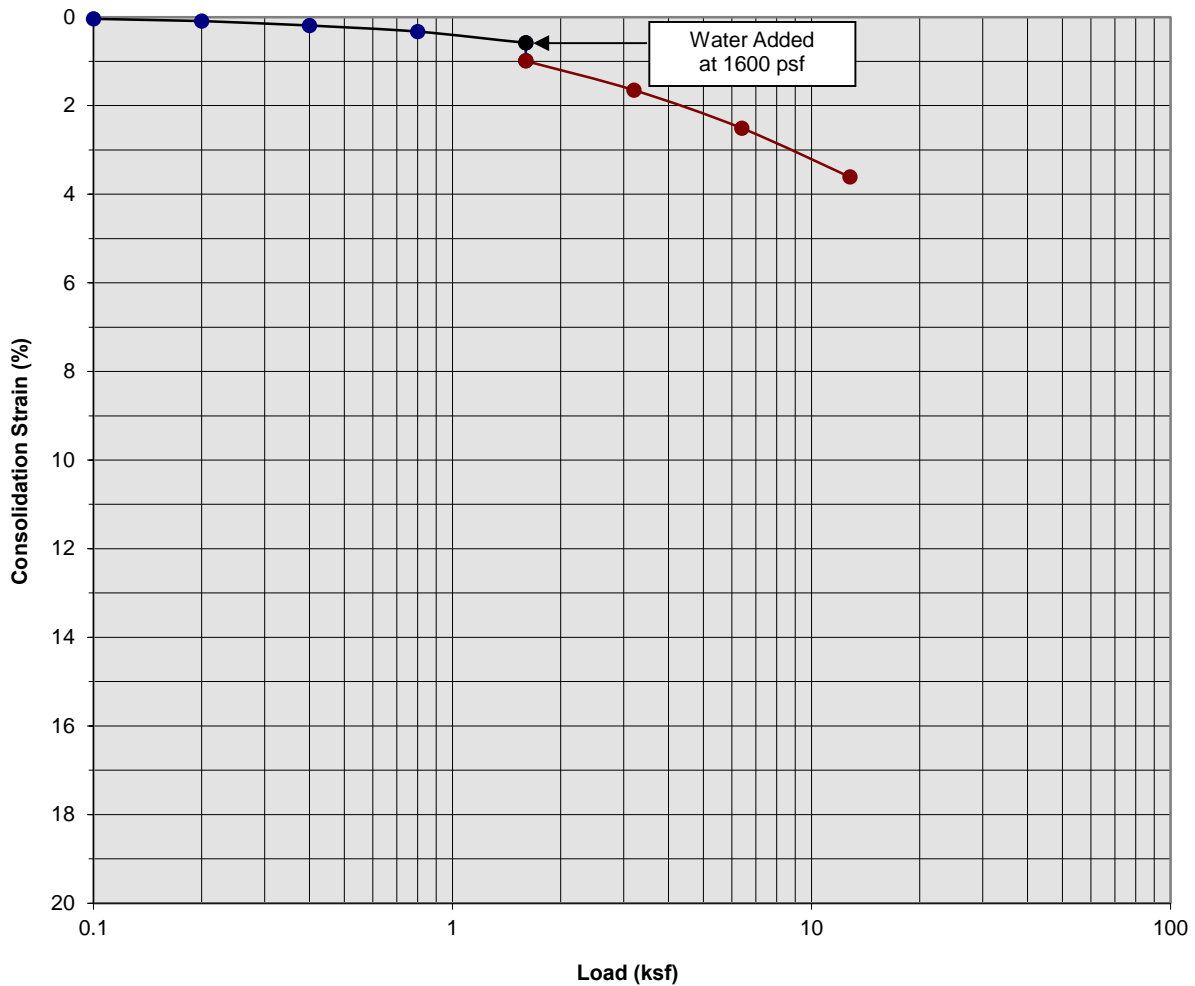
Proposed Warehouse  
 Ontario, California  
 Project No. 22G128-1  
**PLATE C- 5**



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### Consolidation/Collapse Test Results



Classification: Gray Brown fine Sand, little Silt

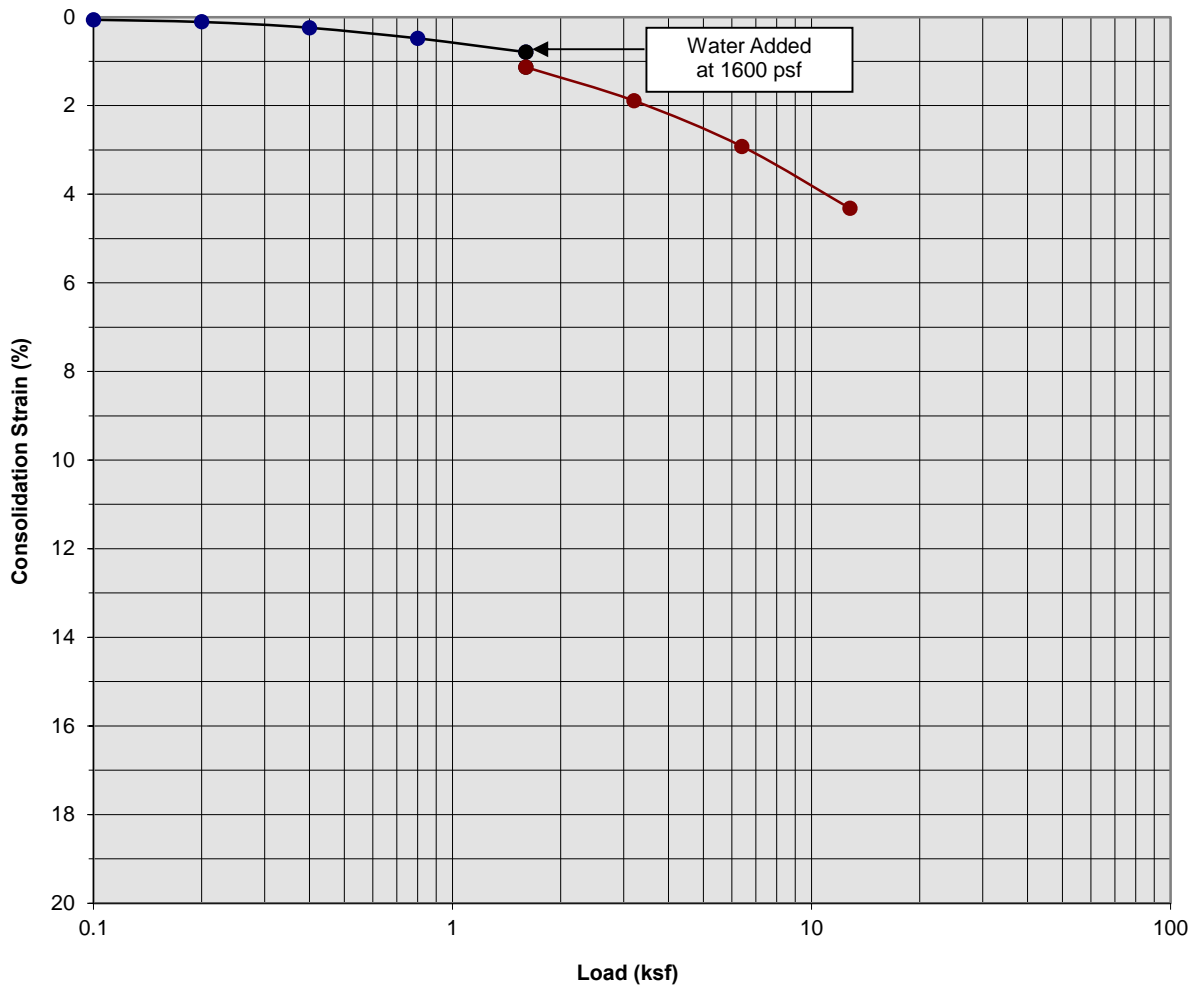
Boring Number:	B-4	Initial Moisture Content (%)	2
Sample Number:	---	Final Moisture Content (%)	19
Depth (ft)	5 to 6	Initial Dry Density (pcf)	102.5
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	106.1
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.41

Proposed Warehouse  
 Ontario, California  
 Project No. 22G128-1  
**PLATE C- 6**



**SOUTHERN CALIFORNIA GEOTECHNICAL**  
*A California Corporation*

### Consolidation/Collapse Test Results



Classification: Gray Brown fine Sand, little Silt

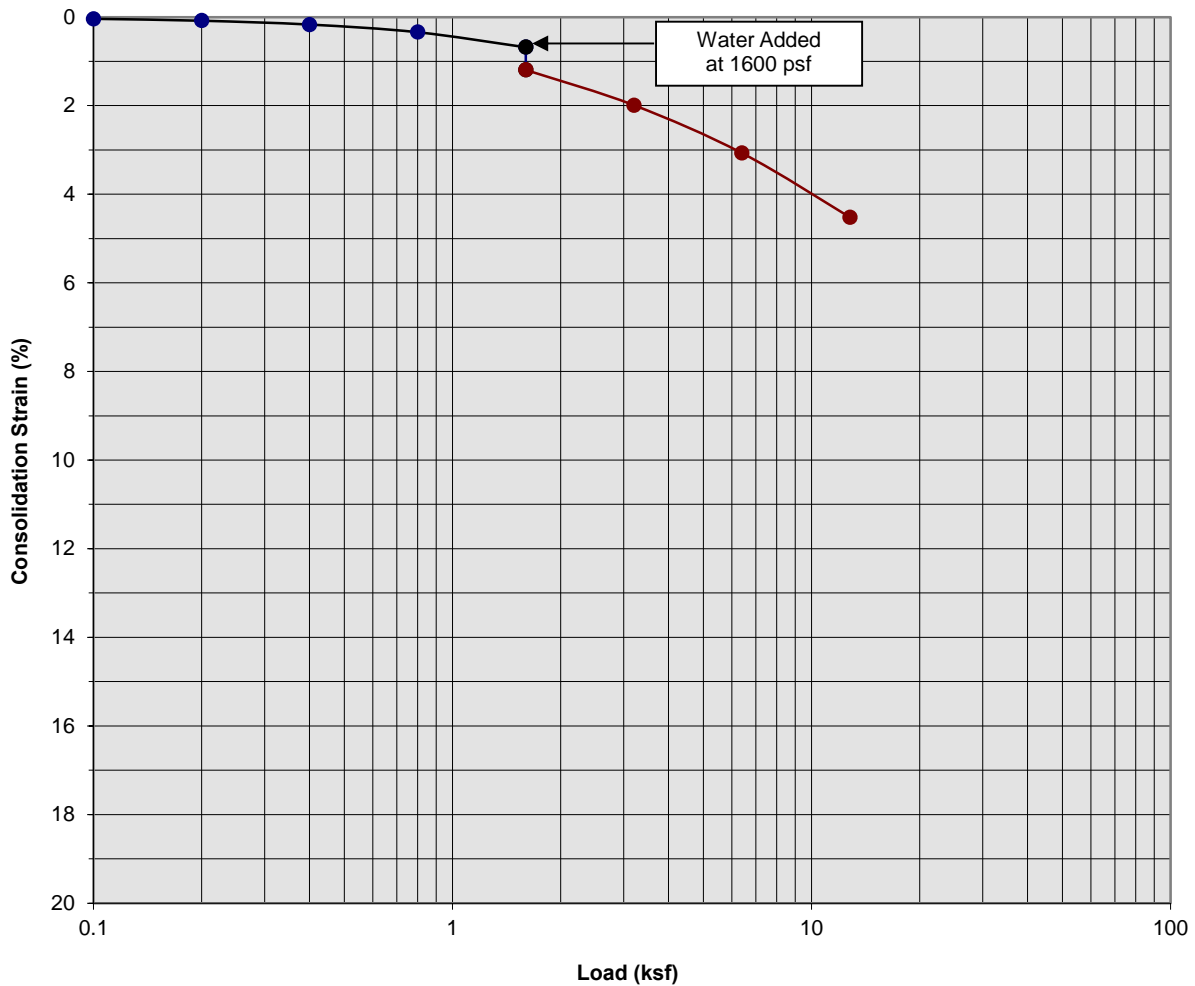
Boring Number:	B-4	Initial Moisture Content (%)	3
Sample Number:	---	Final Moisture Content (%)	20
Depth (ft)	7 to 8	Initial Dry Density (pcf)	101.5
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	105.1
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.34

Proposed Warehouse  
 Ontario, California  
 Project No. 22G128-1  
**PLATE C- 7**



**SOUTHERN  
 CALIFORNIA  
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### Consolidation/Collapse Test Results



Classification: Brown Silty fine Sand, trace to little medium Sand

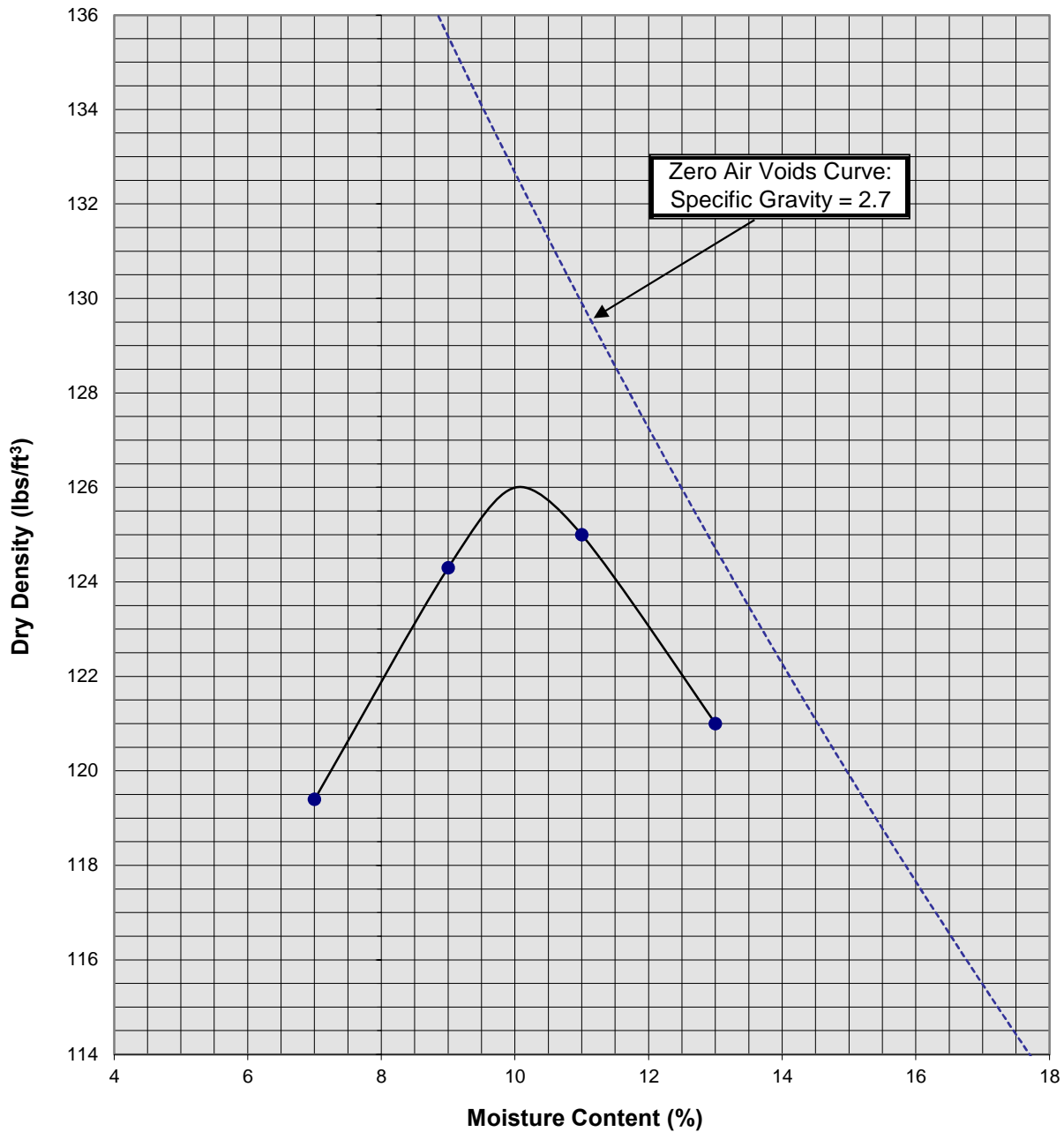
Boring Number:	B-4	Initial Moisture Content (%)	5
Sample Number:	---	Final Moisture Content (%)	20
Depth (ft)	9 to 10	Initial Dry Density (pcf)	102.1
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	106.2
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.51

Proposed Warehouse  
 Ontario, California  
 Project No. 22G128-1  
**PLATE C- 8**



**SOUTHERN  
 CALIFORNIA  
 GEOTECHNICAL**  
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### Moisture/Density Relationship ASTM D-1557



Soil ID Number	B-4 @ 0-5'
Optimum Moisture (%)	10
Maximum Dry Density (pcf)	126
Soil Classification	Gray Brown Silty fine Sand

Proposed Warehouse  
Ontario, California  
Project No. 22G128-1  
**PLATE C-9**



**SOUTHERN CALIFORNIA GEOTECHNICAL**  
*A California Corporation*

# A P P E N D I X D

## GRADING GUIDE SPECIFICATIONS

These grading guide specifications are intended to provide typical procedures for grading operations. They are intended to supplement the recommendations contained in the geotechnical investigation report for this project. Should the recommendations in the geotechnical investigation report conflict with the grading guide specifications, the more site specific recommendations in the geotechnical investigation report will govern.

### General

- The Earthwork Contractor is responsible for the satisfactory completion of all earthwork in accordance with the plans and geotechnical reports, and in accordance with city, county, and applicable building codes.
- The Geotechnical Engineer is the representative of the Owner/Builder for the purpose of implementing the report recommendations and guidelines. These duties are not intended to relieve the Earthwork Contractor of any responsibility to perform in a workman-like manner, nor is the Geotechnical Engineer to direct the grading equipment or personnel employed by the Contractor.
- The Earthwork Contractor is required to notify the Geotechnical Engineer of the anticipated work and schedule so that testing and inspections can be provided. If necessary, work may be stopped and redone if personnel have not been scheduled in advance.
- The Earthwork Contractor is required to have suitable and sufficient equipment on the job-site to process, moisture condition, mix and compact the amount of fill being placed to the approved compaction. In addition, suitable support equipment should be available to conform with recommendations and guidelines in this report.
- Canyon cleanouts, overexcavation areas, processed ground to receive fill, key excavations, subdrains and benches should be observed by the Geotechnical Engineer prior to placement of any fill. It is the Earthwork Contractor's responsibility to notify the Geotechnical Engineer of areas that are ready for inspection.
- Excavation, filling, and subgrade preparation should be performed in a manner and sequence that will provide drainage at all times and proper control of erosion. Precipitation, springs, and seepage water encountered shall be pumped or drained to provide a suitable working surface. The Geotechnical Engineer must be informed of springs or water seepage encountered during grading or foundation construction for possible revision to the recommended construction procedures and/or installation of subdrains.

### Site Preparation

- The Earthwork Contractor is responsible for all clearing, grubbing, stripping and site preparation for the project in accordance with the recommendations of the Geotechnical Engineer.
- If any materials or areas are encountered by the Earthwork Contractor which are suspected of having toxic or environmentally sensitive contamination, the Geotechnical Engineer and Owner/Builder should be notified immediately.

- Major vegetation should be stripped and disposed of off-site. This includes trees, brush, heavy grasses and any materials considered unsuitable by the Geotechnical Engineer.
- Underground structures such as basements, cesspools or septic disposal systems, mining shafts, tunnels, wells and pipelines should be removed under the inspection of the Geotechnical Engineer and recommendations provided by the Geotechnical Engineer and/or city, county or state agencies. If such structures are known or found, the Geotechnical Engineer should be notified as soon as possible so that recommendations can be formulated.
- Any topsoil, slopewash, colluvium, alluvium and rock materials which are considered unsuitable by the Geotechnical Engineer should be removed prior to fill placement.
- Remaining voids created during site clearing caused by removal of trees, foundations basements, irrigation facilities, etc., should be excavated and filled with compacted fill.
- Subsequent to clearing and removals, areas to receive fill should be scarified to a depth of 10 to 12 inches, moisture conditioned and compacted
- The moisture condition of the processed ground should be at or slightly above the optimum moisture content as determined by the Geotechnical Engineer. Depending upon field conditions, this may require air drying or watering together with mixing and/or discing.

#### Compacted Fills

- Soil materials imported to or excavated on the property may be utilized in the fill, provided each material has been determined to be suitable in the opinion of the Geotechnical Engineer. Unless otherwise approved by the Geotechnical Engineer, all fill materials shall be free of deleterious, organic, or frozen matter, shall contain no chemicals that may result in the material being classified as "contaminated," and shall be very low to non-expansive with a maximum expansion index (EI) of 50. The top 12 inches of the compacted fill should have a maximum particle size of 3 inches, and all underlying compacted fill material a maximum 6-inch particle size, except as noted below.
- All soils should be evaluated and tested by the Geotechnical Engineer. Materials with high expansion potential, low strength, poor gradation or containing organic materials may require removal from the site or selective placement and/or mixing to the satisfaction of the Geotechnical Engineer.
- Rock fragments or rocks less than 6 inches in their largest dimensions, or as otherwise determined by the Geotechnical Engineer, may be used in compacted fill, provided the distribution and placement is satisfactory in the opinion of the Geotechnical Engineer.
- Rock fragments or rocks greater than 12 inches should be taken off-site or placed in accordance with recommendations and in areas designated as suitable by the Geotechnical Engineer. These materials should be placed in accordance with Plate D-8 of these Grading Guide Specifications and in accordance with the following recommendations:
  - Rocks 12 inches or more in diameter should be placed in rows at least 15 feet apart, 15 feet from the edge of the fill, and 10 feet or more below subgrade. Spaces should be left between each rock fragment to provide for placement and compaction of soil around the fragments.
  - Fill materials consisting of soil meeting the minimum moisture content requirements and free of oversize material should be placed between and over the rows of rock or

concrete. Ample water and compactive effort should be applied to the fill materials as they are placed in order that all of the voids between each of the fragments are filled and compacted to the specified density.

- Subsequent rows of rocks should be placed such that they are not directly above a row placed in the previous lift of fill. A minimum 5-foot offset between rows is recommended.
- To facilitate future trenching, oversized material should not be placed within the range of foundation excavations, future utilities or other underground construction unless specifically approved by the soil engineer and the developer/owner representative.
- Fill materials approved by the Geotechnical Engineer should be placed in areas previously prepared to receive fill and in evenly placed, near horizontal layers at about 6 to 8 inches in loose thickness, or as otherwise determined by the Geotechnical Engineer for the project.
- Each layer should be moisture conditioned to optimum moisture content, or slightly above, as directed by the Geotechnical Engineer. After proper mixing and/or drying, to evenly distribute the moisture, the layers should be compacted to at least 90 percent of the maximum dry density in compliance with ASTM D-1557-78 unless otherwise indicated.
- Density and moisture content testing should be performed by the Geotechnical Engineer at random intervals and locations as determined by the Geotechnical Engineer. These tests are intended as an aid to the Earthwork Contractor, so he can evaluate his workmanship, equipment effectiveness and site conditions. The Earthwork Contractor is responsible for compaction as required by the Geotechnical Report(s) and governmental agencies.
- Fill areas unused for a period of time may require moisture conditioning, processing and recompaction prior to the start of additional filling. The Earthwork Contractor should notify the Geotechnical Engineer of his intent so that an evaluation can be made.
- Fill placed on ground sloping at a 5-to-1 inclination (horizontal-to-vertical) or steeper should be benched into bedrock or other suitable materials, as directed by the Geotechnical Engineer. Typical details of benching are illustrated on Plates D-2, D-4, and D-5.
- Cut/fill transition lots should have the cut portion overexcavated to a depth of at least 3 feet and rebuilt with fill (see Plate D-1), as determined by the Geotechnical Engineer.
- All cut lots should be inspected by the Geotechnical Engineer for fracturing and other bedrock conditions. If necessary, the pads should be overexcavated to a depth of 3 feet and rebuilt with a uniform, more cohesive soil type to impede moisture penetration.
- Cut portions of pad areas above buttresses or stabilizations should be overexcavated to a depth of 3 feet and rebuilt with uniform, more cohesive compacted fill to impede moisture penetration.
- Non-structural fill adjacent to structural fill should typically be placed in unison to provide lateral support. Backfill along walls must be placed and compacted with care to ensure that excessive unbalanced lateral pressures do not develop. The type of fill material placed adjacent to below grade walls must be properly tested and approved by the Geotechnical Engineer with consideration of the lateral earth pressure used in the design.



### Foundations

- The foundation influence zone is defined as extending one foot horizontally from the outside edge of a footing, and proceeding downward at a ½ horizontal to 1 vertical (0.5:1) inclination.
- Where overexcavation beneath a footing subgrade is necessary, it should be conducted so as to encompass the entire foundation influence zone, as described above.
- Compacted fill adjacent to exterior footings should extend at least 12 inches above foundation bearing grade. Compacted fill within the interior of structures should extend to the floor subgrade elevation.

### Fill Slopes

- The placement and compaction of fill described above applies to all fill slopes. Slope compaction should be accomplished by overfilling the slope, adequately compacting the fill in even layers, including the overfilled zone and cutting the slope back to expose the compacted core
- Slope compaction may also be achieved by backrolling the slope adequately every 2 to 4 vertical feet during the filling process as well as requiring the earth moving and compaction equipment to work close to the top of the slope. Upon completion of slope construction, the slope face should be compacted with a sheepsfoot connected to a sideboom and then grid rolled. This method of slope compaction should only be used if approved by the Geotechnical Engineer.
- Sandy soils lacking in adequate cohesion may be unstable for a finished slope condition and therefore should not be placed within 15 horizontal feet of the slope face.
- All fill slopes should be keyed into bedrock or other suitable material. Fill keys should be at least 15 feet wide and inclined at 2 percent into the slope. For slopes higher than 30 feet, the fill key width should be equal to one-half the height of the slope (see Plate D-5).
- All fill keys should be cleared of loose slough material prior to geotechnical inspection and should be approved by the Geotechnical Engineer and governmental agencies prior to filling.
- The cut portion of fill over cut slopes should be made first and inspected by the Geotechnical Engineer for possible stabilization requirements. The fill portion should be adequately keyed through all surficial soils and into bedrock or suitable material. Soils should be removed from the transition zone between the cut and fill portions (see Plate D-2).

### Cut Slopes

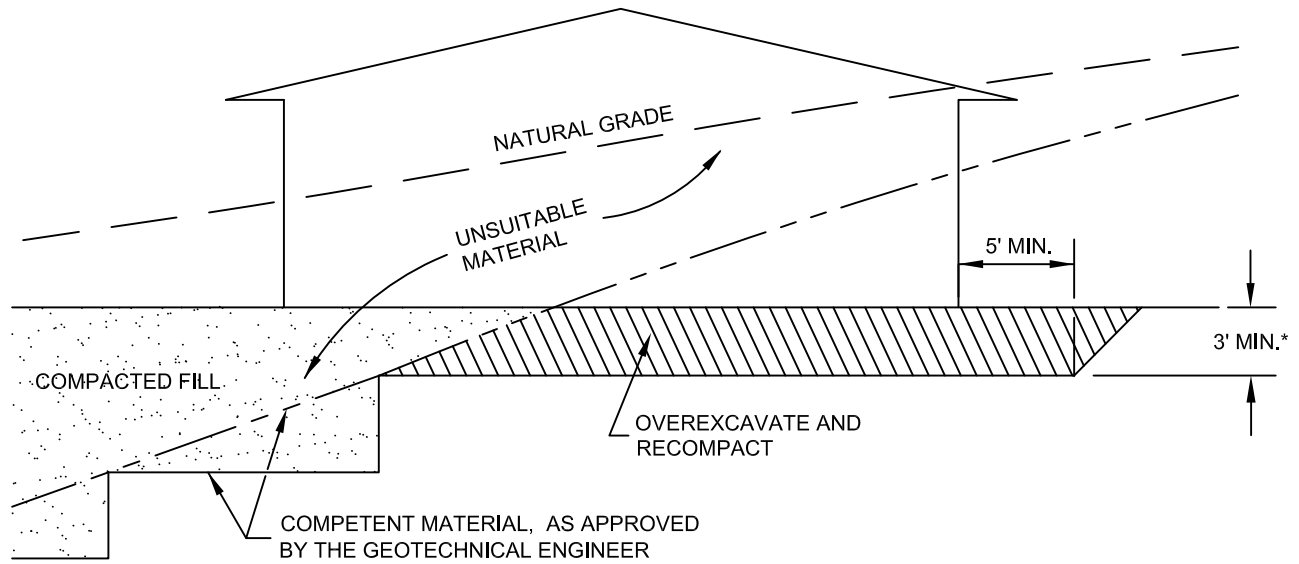
- All cut slopes should be inspected by the Geotechnical Engineer to determine the need for stabilization. The Earthwork Contractor should notify the Geotechnical Engineer when slope cutting is in progress at intervals of 10 vertical feet. Failure to notify may result in a delay in recommendations.
- Cut slopes exposing loose, cohesionless sands should be reported to the Geotechnical Engineer for possible stabilization recommendations.
- All stabilization excavations should be cleared of loose slough material prior to geotechnical inspection. Stakes should be provided by the Civil Engineer to verify the location and dimensions of the key. A typical stabilization fill detail is shown on Plate D-5.

- Stabilization key excavations should be provided with subdrains. Typical subdrain details are shown on Plates D-6.

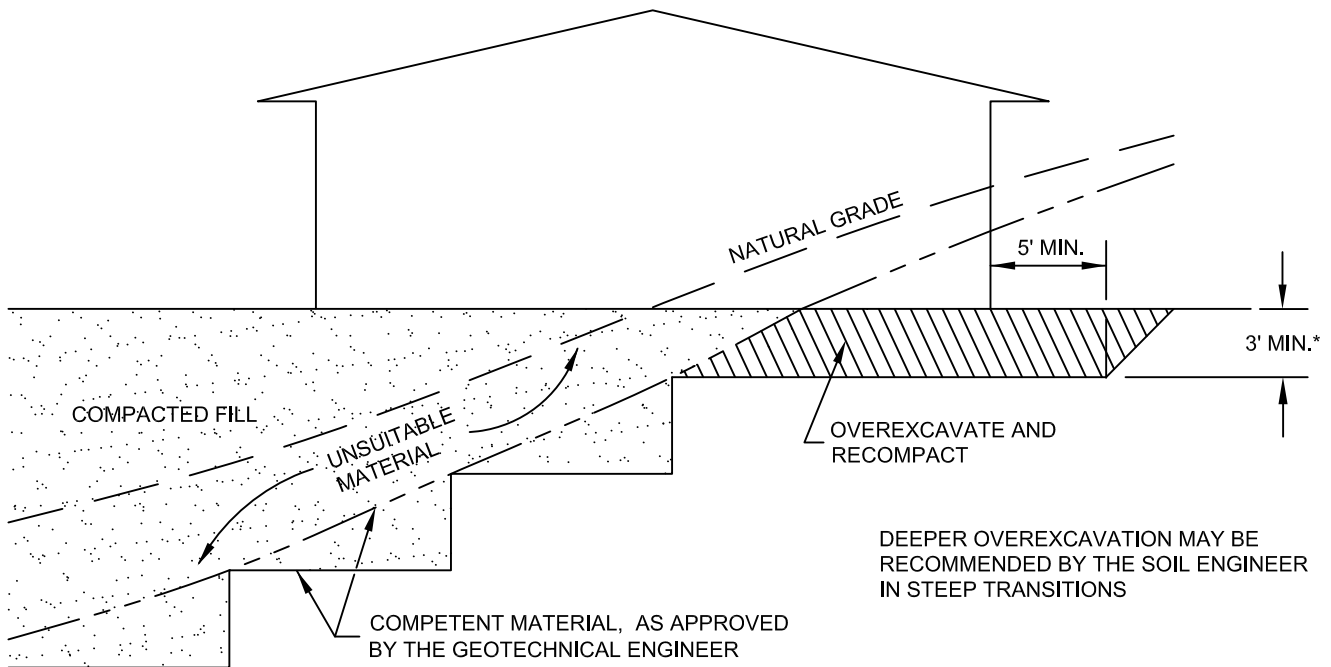
#### Subdrains

- Subdrains may be required in canyons and swales where fill placement is proposed. Typical subdrain details for canyons are shown on Plate D-3. Subdrains should be installed after approval of removals and before filling, as determined by the Soils Engineer.
- Plastic pipe may be used for subdrains provided it is Schedule 40 or SDR 35 or equivalent. Pipe should be protected against breakage, typically by placement in a square-cut (backhoe) trench or as recommended by the manufacturer.
- Filter material for subdrains should conform to CALTRANS Specification 68-1.025 or as approved by the Geotechnical Engineer for the specific site conditions. Clean  $\frac{3}{4}$ -inch crushed rock may be used provided it is wrapped in an acceptable filter cloth and approved by the Geotechnical Engineer. Pipe diameters should be 6 inches for runs up to 500 feet and 8 inches for the downstream continuations of longer runs. Four-inch diameter pipe may be used in buttress and stabilization fills.


CUT LOT

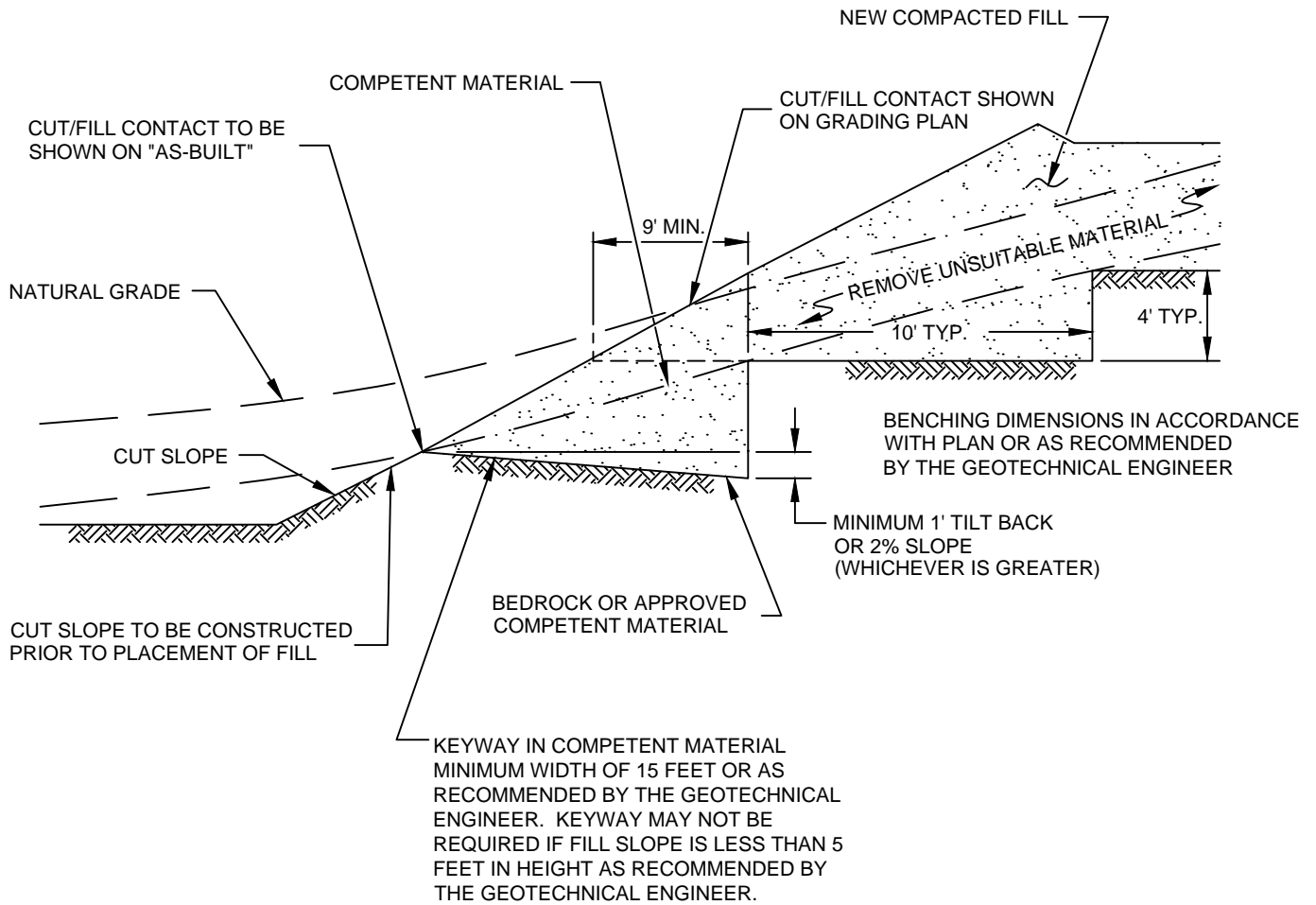



CUT/FILL LOT (TRANSITION)

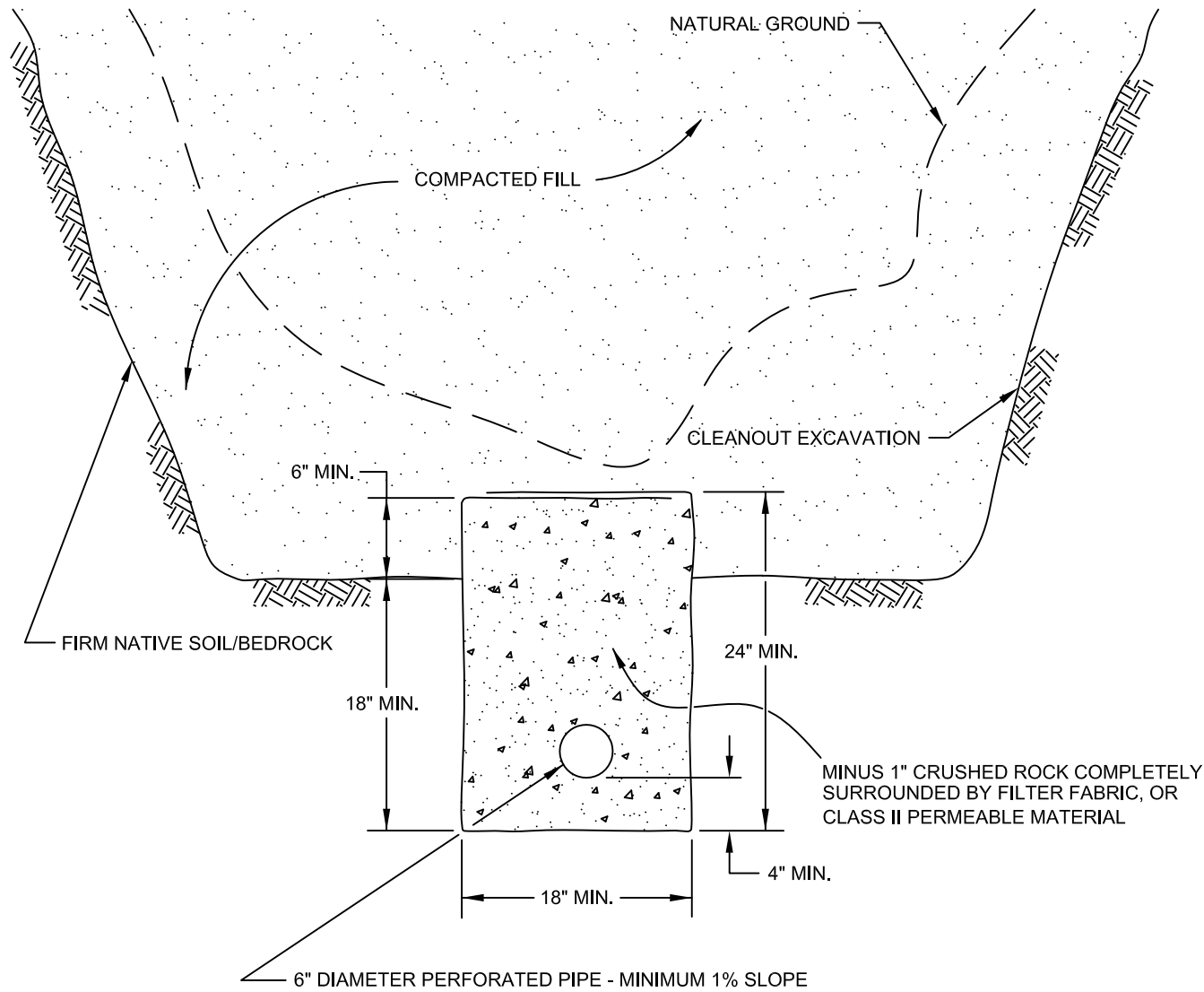


\*SEE TEXT OF REPORT FOR SPECIFIC RECOMMENDATION.  
ACTUAL DEPTH OF OVEREXCAVATION MAY BE GREATER.

<b>TRANSITION LOT DETAIL</b>	
GRADING GUIDE SPECIFICATIONS	
NOT TO SCALE	 <b>SOUTHERN CALIFORNIA GEOTECHNICAL</b>
DRAWN: JAS CHKD: GKM	
<b>PLATE D-1</b>	




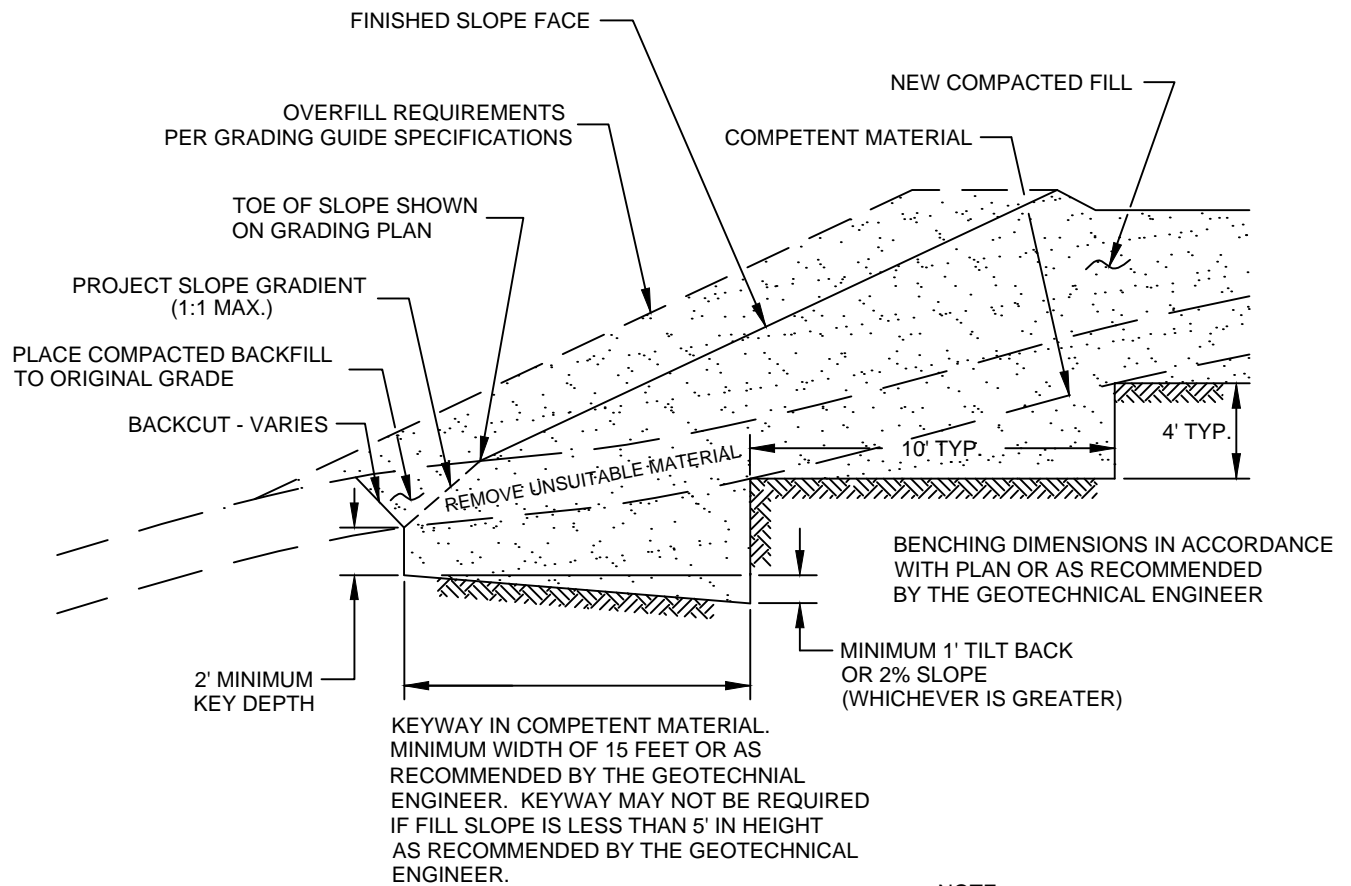
<b>FILL ABOVE CUT SLOPE DETAIL</b>	
<b>GRADING GUIDE SPECIFICATIONS</b>	
NOT TO SCALE	 <b>SOUTHERN CALIFORNIA GEOTECHNICAL</b>
DRAWN: JAS CHKD: GKM	
<b>PLATE D-2</b>	




PIPE MATERIAL	DEPTH OF FILL OVER SUBDRAIN
ADS (CORRUGATED POLETHYLENE)	8
TRANSITE UNDERDRAIN	20
PVC OR ABS: SDR 35	35
SDR 21	100

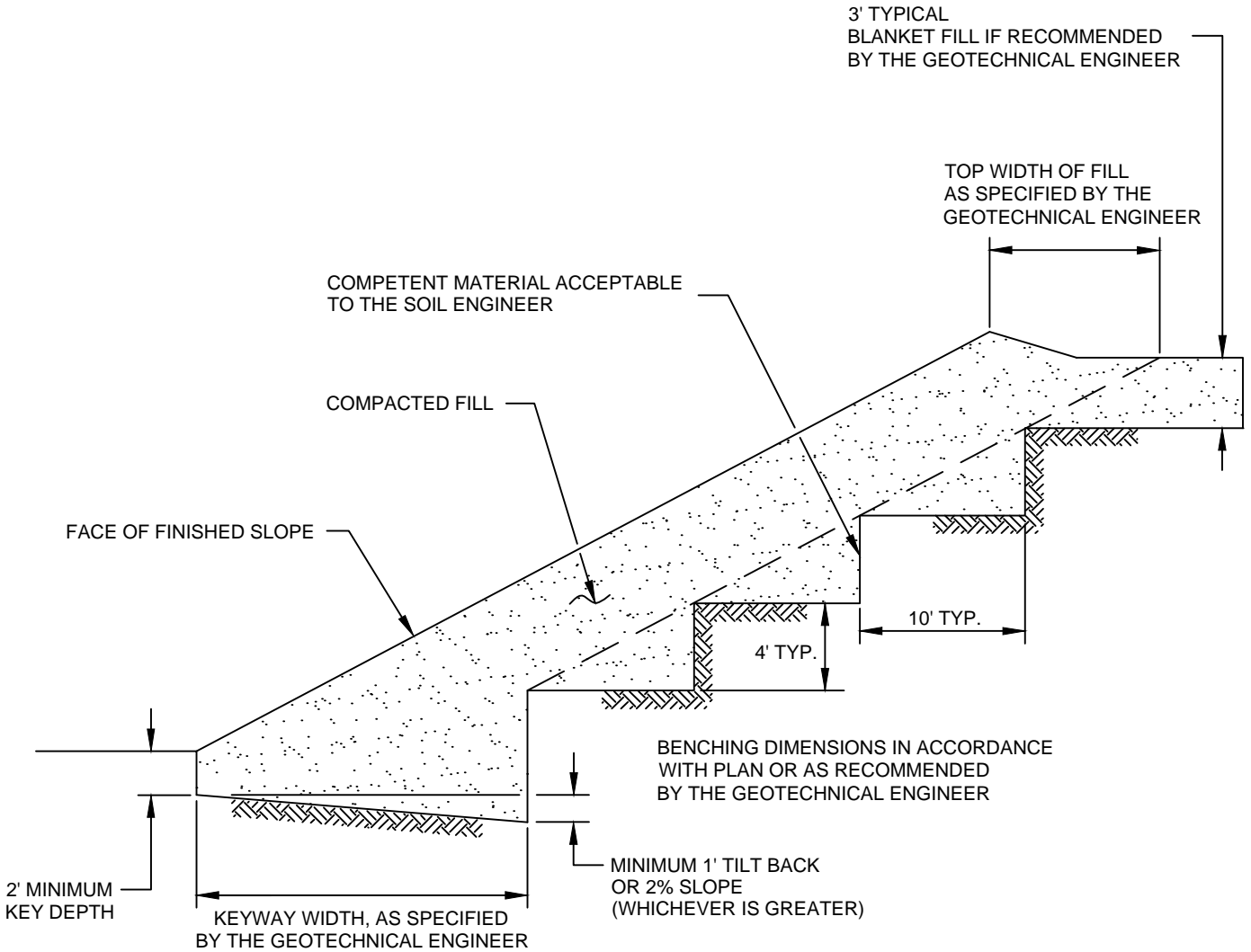
**SCHEMATIC ONLY  
NOT TO SCALE**


<b>CANYON SUBDRAIN DETAIL</b>	
<b>GRADING GUIDE SPECIFICATIONS</b>	
NOT TO SCALE	 <b>SOUTHERN CALIFORNIA GEOTECHNICAL</b>
DRAWN: JAS CHKD: GKM	
<b>PLATE D-3</b>	

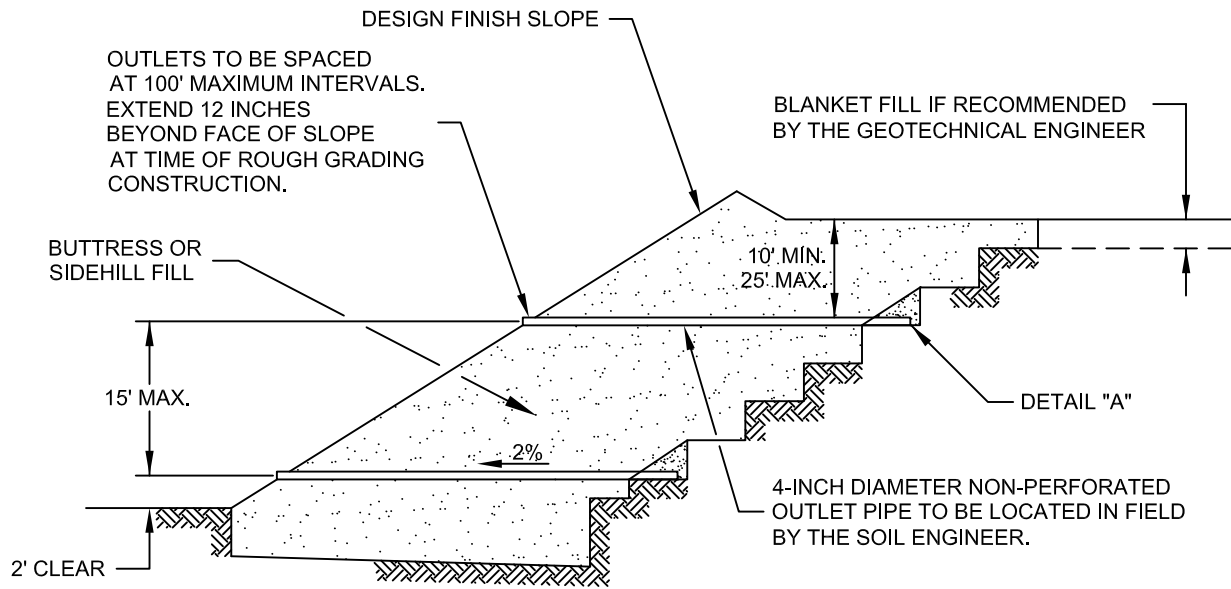


NOTE:  
 BENCHING SHALL BE REQUIRED  
 WHEN NATURAL SLOPES ARE  
 EQUAL TO OR STEEPER THAN 5:1  
 OR WHEN RECOMMENDED BY  
 THE GEOTECHNICAL ENGINEER.

<b>FILL ABOVE NATURAL SLOPE DETAIL</b>	
<b>GRADING GUIDE SPECIFICATIONS</b>	
NOT TO SCALE	
DRAWN: JAS CHKD: GKM	
<b>PLATE D-4</b>	
	<b>SOUTHERN CALIFORNIA GEOTECHNICAL</b>



<b>STABILIZATION FILL DETAIL</b>	
GRADING GUIDE SPECIFICATIONS	
NOT TO SCALE	 <b>SOUTHERN CALIFORNIA GEOTECHNICAL</b>
DRAWN: JAS CHKD: GKM	
<b>PLATE D-5</b>	



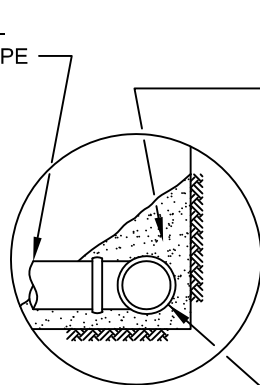
"FILTER MATERIAL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT: (CONFORMS TO EMA STD. PLAN 323)

SIEVE SIZE	PERCENTAGE PASSING
1"	100
3/4"	90-100
3/8"	40-100
NO. 4	25-40
NO. 8	18-33
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

"GRAVEL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT:

SIEVE SIZE	MAXIMUM PERCENTAGE PASSING
1 1/2"	100
NO. 4	50
NO. 200	8
SAND EQUIVALENT = MINIMUM OF 50	

OUTLET PIPE TO BE CONNECTED TO SUBDRAIN PIPE WITH TEE OR ELBOW



DETAIL "A"

FILTER MATERIAL - MINIMUM OF FIVE CUBIC FEET PER FOOT OF PIPE. SEE ABOVE FOR FILTER MATERIAL SPECIFICATION.


ALTERNATIVE: IN LIEU OF FILTER MATERIAL FIVE CUBIC FEET OF GRAVEL PER FOOT OF PIPE MAY BE ENCASED IN FILTER FABRIC. SEE ABOVE FOR GRAVEL SPECIFICATION.

FILTER FABRIC SHALL BE MIRAFI 140 OR EQUIVALENT. FILTER FABRIC SHALL BE LAPPED A MINIMUM OF 12 INCHES ON ALL JOINTS.

MINIMUM 4-INCH DIAMETER PVC SCH 40 OR ABS CLASS SDR 35 WITH A CRUSHING STRENGTH OF AT LEAST 1,000 POUNDS, WITH A MINIMUM OF 8 UNIFORMLY SPACED PERFORATIONS PER FOOT OF PIPE INSTALLED WITH PERFORATIONS ON BOTTOM OF PIPE. PROVIDE CAP AT UPSTREAM END OF PIPE. SLOPE AT 2 PERCENT TO OUTLET PIPE.

NOTES:

- TRENCH FOR OUTLET PIPES TO BE BACKFILLED WITH ON-SITE SOIL.

SLOPE FILL SUBDRAINS	
GRADING GUIDE SPECIFICATIONS	
NOT TO SCALE	 <b>SOUTHERN CALIFORNIA GEOTECHNICAL</b>
DRAWN: JAS CHKD: GKM	
PLATE D-6	



MINIMUM ONE FOOT THICK LAYER OF LOW PERMEABILITY SOIL IF NOT COVERED WITH AN IMPERMEABLE SURFACE

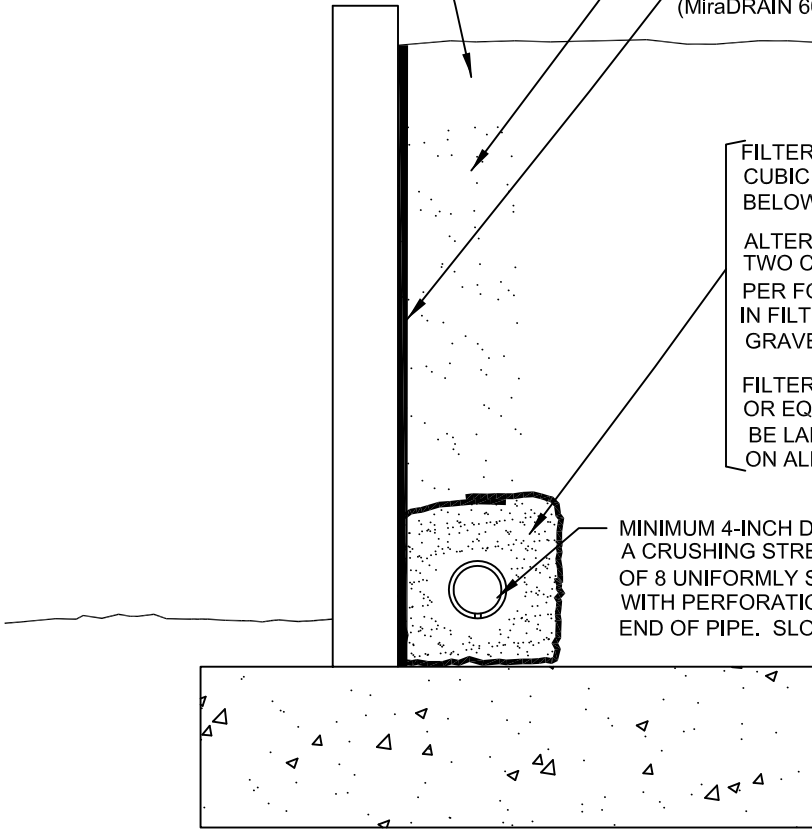
MINIMUM ONE FOOT WIDE LAYER OF FREE DRAINING MATERIAL (LESS THAN 5% PASSING THE #200 SIEVE) OR PROPERLY INSTALLED PREFABRICATED DRAINAGE COMPOSITE (MiraDRAIN 6000 OR APPROVED EQUIVALENT).

FILTER MATERIAL - MINIMUM OF TWO CUBIC FEET PER FOOT OF PIPE. SEE BELOW FOR FILTER MATERIAL SPECIFICATION.

ALTERNATIVE: IN LIEU OF FILTER MATERIAL TWO CUBIC FEET OF GRAVEL PER FOOT OF PIPE MAY BE ENCASED IN FILTER FABRIC. SEE BELOW FOR GRAVEL SPECIFICATION.

FILTER FABRIC SHALL BE MIRAFI 140 OR EQUIVALENT. FILTER FABRIC SHALL BE LAPPED A MINIMUM OF 6 INCHES ON ALL JOINTS.

MINIMUM 4-INCH DIAMETER PVC SCH 40 OR ABS CLASS SDR 35 WITH A CRUSHING STRENGTH OF AT LEAST 1,000 POUNDS, WITH A MINIMUM OF 8 UNIFORMLY SPACED PERFORATIONS PER FOOT OF PIPE INSTALLED WITH PERFORATIONS ON BOTTOM OF PIPE. PROVIDE CAP AT UPSTREAM END OF PIPE. SLOPE AT 2 PERCENT TO OUTLET PIPE.




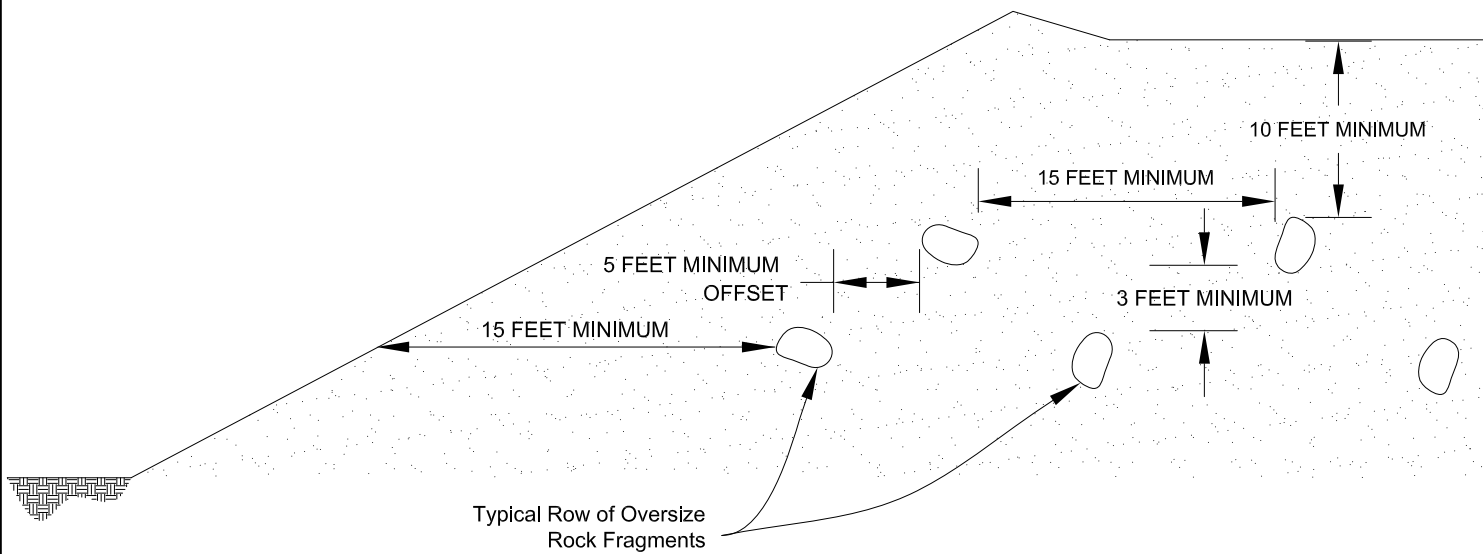
"FILTER MATERIAL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT: (CONFORMS TO EMA STD. PLAN 323)

SIEVE SIZE	PERCENTAGE PASSING
1"	100
3/4"	90-100
3/8"	40-100
NO. 4	25-40
NO. 8	18-33
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

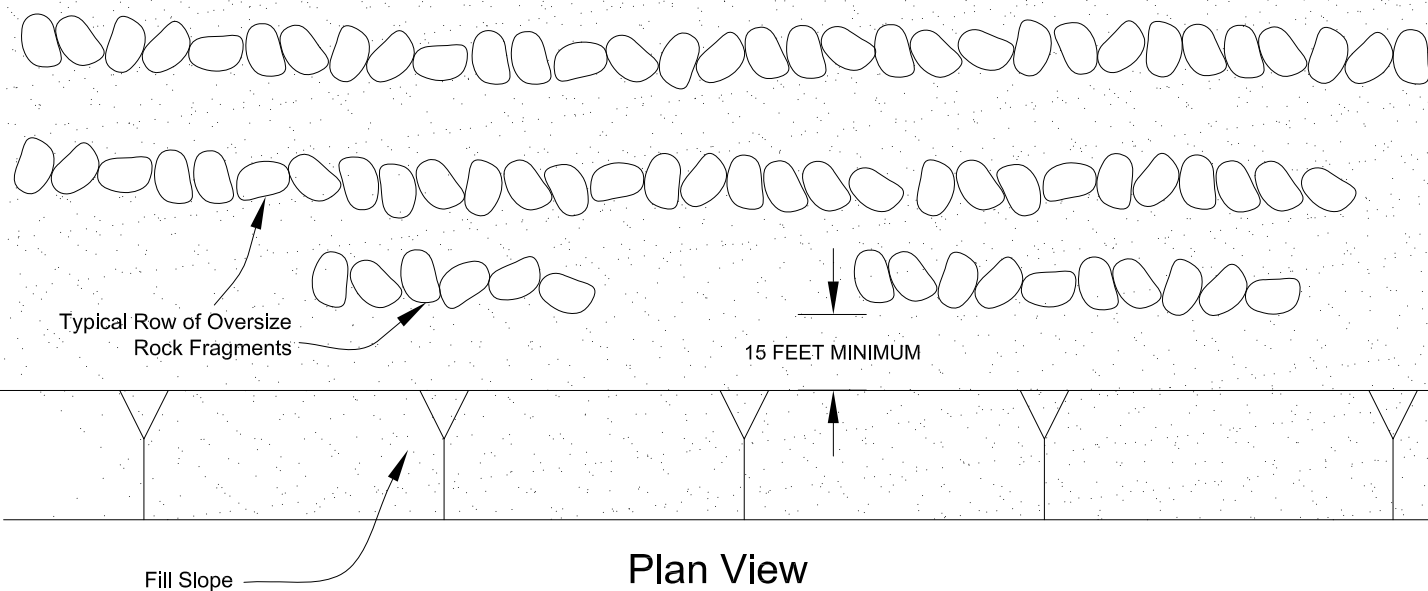
"GRAVEL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT:

SIEVE SIZE	MAXIMUM PERCENTAGE PASSING
1 1/2"	100
NO. 4	50
NO. 200	8
SAND EQUIVALENT = MINIMUM OF 50	

RETAINING WALL BACKDRAINS	
GRADING GUIDE SPECIFICATIONS	
NOT TO SCALE	 <b>SOUTHERN CALIFORNIA GEOTECHNICAL</b>
DRAWN: JAS CHKD: GKM	
PLATE D-7	



**Section View**



**Plan View**

**PLACEMENT OF OVERSIZED MATERIAL  
GRADING GUIDE SPECIFICATIONS**

NOT TO SCALE

DRAWN: PM  
CHKD: GKM

PLATE D-8



**SOUTHERN  
CALIFORNIA  
GEOTECHNICAL**

# A P P E N D I X E



Latitude, Longitude: 34.063779, -117.532667



<b>Date</b>	2/18/2022, 5:07:18 PM
<b>Design Code Reference Document</b>	ASCE7-16
<b>Risk Category</b>	II
<b>Site Class</b>	D - Stiff Soil

Type	Value	Description
S <sub>S</sub>	1.692	MCE <sub>R</sub> ground motion. (for 0.2 second period)
S <sub>1</sub>	0.625	MCE <sub>R</sub> ground motion. (for 1.0s period)
S <sub>MS</sub>	1.692	Site-modified spectral acceleration value
S <sub>M1</sub>	null -See Section 11.4.8	Site-modified spectral acceleration value
S <sub>DS</sub>	1.128	Numeric seismic design value at 0.2 second SA
S <sub>D1</sub>	null -See Section 11.4.8	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	null -See Section 11.4.8	Seismic design category
F <sub>a</sub>	1	Site amplification factor at 0.2 second
F <sub>v</sub>	null -See Section 11.4.8	Site amplification factor at 1.0 second
PGA	0.716	MCE <sub>G</sub> peak ground acceleration
F <sub>PGA</sub>	1.1	Site amplification factor at PGA
PGA <sub>M</sub>	0.787	Site modified peak ground acceleration
T <sub>L</sub>	12	Long-period transition period in seconds
S <sub>sRT</sub>	1.692	Probabilistic risk-targeted ground motion. (0.2 second)
S <sub>sUH</sub>	1.805	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
S <sub>sD</sub>	2.227	Factored deterministic acceleration value. (0.2 second)
S <sub>1RT</sub>	0.625	Probabilistic risk-targeted ground motion. (1.0 second)
S <sub>1UH</sub>	0.684	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S <sub>1D</sub>	0.727	Factored deterministic acceleration value. (1.0 second)
PGA <sub>d</sub>	0.91	Factored deterministic acceleration value. (Peak Ground Acceleration)
C <sub>RS</sub>	0.938	Mapped value of the risk coefficient at short periods
C <sub>R1</sub>	0.914	Mapped value of the risk coefficient at a period of 1 s

SOURCE: SEAOC/OSHPD Seismic Design Maps Tool  
<<https://seismicmaps.org/>>



<b>SEISMIC DESIGN PARAMETERS - 2019 CBC</b>	
PROPOSED WAREHOUSE	
ONTARIO, CALIFORNIA	
DRAWN: JLL CHKD: RGT SCG PROJECT 22G128-1 <b>PLATE E-1</b>	 <b>SOUTHERN CALIFORNIA GEOTECHNICAL</b>

March 9, 2022

Prologis  
17777 Center Court Drive North, Suite 100  
Cerritos, California 90703



**SOUTHERN  
CALIFORNIA  
GEOTECHNICAL**  
*A California Corporation*

Attention: Mr. John Carter  
Director, Project Management

Project No.: 22G128-2

Subject: Results of Infiltration Testing  
Proposed Warehouse  
5355 East Airport Drive  
Ontario, California

Reference: Geotechnical Investigation, Proposed Warehouse, 5355 East Airport Drive, Ontario, California, prepared by Southern California Geotechnical, Inc. (SCG) for Prologis, SCG Project No. 22G128-1, dated March 9, 2022.

Dear Mr. Carter:

In accordance with your request, we have conducted infiltration testing at the subject site. We are pleased to present this report summarizing the results of the infiltration testing and our design recommendations.

### Scope of Services

The scope of services performed for this project was in general accordance with our Proposal No. 22P129, dated January 21, 2022. The scope of services included site reconnaissance, subsurface exploration, field testing, and engineering analysis to determine the infiltration rates of the on-site soils. The infiltration testing was performed in general accordance with the guidelines published in the Riverside County – Low Impact Development BMP Design Handbook – Section 2.3 of Appendix A, prepared for the Riverside County Department of Environmental Health (RCDEH), dated December, 2013. The San Bernardino County standards defer to the guidelines published by the RCDEH.

### Site and Project Description

The subject site is located on the north side of East Airport Drive, 1,310± feet east of the intersection of South Wineville Avenue and East Airport Drive in Ontario, California. The site is also referenced by the street address 5355 East Airport Drive. The site is bounded to the north by Union Pacific railroad tracks, to the east and west by an industrial development, and to the south by East Airport Drive. The general location of the site is illustrated on the Site Location Map, enclosed as Plate 1 of this report.

The site consists of an irregular-shaped property, 14.58± acres in size. The site is developed to manufacture and store animal feed grains. The development includes several buildings and shed structures ranging in size from 2,200± ft<sup>2</sup> to 20,175± ft<sup>2</sup>, and several silos and above-ground

storage tanks (ASTs) primarily located in the north-central region of the site. The existing structures are generally of concrete tilt-up and/or metal-framed construction, and are presumed to be supported on conventional shallow foundations with concrete slab-on-grade floors. The existing structures are generally surrounded by asphaltic concrete (AC) pavements, with isolated areas of Portland cement concrete (PCC), aggregate base pavements, and exposed soils in the south-central portion of the site. The existing pavements are in poor condition, with moderate to severe cracking throughout. Two medium-size trees are present in the south-central region of the site.

Detailed topographic information was not available at the time of this report. Based on elevations obtained from Google Earth and visual observations made at the time of the subsurface investigation, the site slopes gently to the south-southeast at a gradient of less than 1 percent.

### Proposed Development

A preliminary site plan, identified as Scheme 01 and prepared by RGA, for the proposed development was provided to our office by the client. Based on this plan, the subject site will be developed with a 259,189± ft<sup>2</sup> warehouse, located in the north-central region of the site. Dock-high doors will be constructed along a portion of the south building wall. The proposed building is expected to be surrounded by AC pavements in the parking and drive areas, PCC pavements in the loading dock area, and concrete flatwork and landscaped planters throughout the site.

We understand that the proposed development will include on-site stormwater infiltration. Based on our experience with similar projects in the area, the infiltration systems are expected to be below-grade chambers. The bottoms of the infiltration systems are expected to be 10 to 12± feet below the existing site grades.

### Concurrent Study

SCG concurrently conducted a geotechnical investigation at the subject site, referenced above. As a part of this study, five (5) borings (identified as Boring Nos. B-1 through B-5) were advanced to depths of 20 to 30± feet below the existing site grades.

AC pavements were encountered at the ground surface of Boring Nos. B-1 through B-4. The pavement sections generally consist of 0 to 2½± inches of AC, underlain by 1 to 3½± inches of aggregate base. Artificial fill soils were encountered beneath the existing pavements at Boring Nos. B-1 through B-4 and at the ground surface at Boring No. B-5, extending to depths of 2½ to 6½± feet below the existing site grades. The fill soils generally consist of loose to medium dense sands and silty sands, with occasional dense silty sands. Native alluvium was encountered beneath the artificial fill soils at all of the boring locations, extending to at least the maximum depth explored of 30± feet. The near-surface alluvium generally consists of loose to medium dense sands and sandy silts, extending to depths of 6½ to 12± feet. At greater depths, the alluvium generally consists of medium dense to dense sands, silty sands and sandy silts. Boring No. B-3 encountered a stratum of dense silty sands at a depth of 14½ to 17± feet. Boring No. B-5 encountered a stratum of loose well-graded sands at a depth of 12 to 17± feet.

## Groundwater

Free water was not encountered during the drilling of any of the borings. Based on the lack of any water within the borings, and the moisture contents of the recovered soil samples, the static groundwater table is considered to have existed at a depth in excess of 30± feet at the time of the subsurface exploration.

As part of our research, we reviewed available groundwater data in order to determine groundwater levels for the site. Water level data was obtained from the California Department of Water Resources Water Data Library website, <https://wdl.water.ca.gov/waterdatalibrary/>. The nearest monitoring well on record (identified as State Well Number: 01S06W29H001S) is located 3,400± feet southeast of the project site. Water level readings within this monitoring well indicate a high groundwater level of 277± feet below the ground surface in April 2019.

## Subsurface Exploration

### Scope of Exploration

The subsurface exploration conducted for the infiltration testing consisted of six (6) infiltration test borings, advanced to depths of 10 to 12± feet below the existing site grades. The infiltration borings were advanced using a truck-mounted drilling rig, equipped with 8-inch-diameter hollow-stem augers and were logged during drilling by a member of our staff. The approximate locations of the infiltration test borings (identified as I-1 through I-6) are indicated on the Infiltration Test Location Plan, enclosed as Plate 2 of this report.

Upon the completion of the infiltration borings, the bottom of each test boring was covered with 2± inches of clean ¾-inch gravel. A sufficient length of 3-inch-diameter perforated PVC casing was then placed into each test hole so that the PVC casing extended from the bottom of the test hole to the ground surface. Clean ¾-inch gravel was then installed in the annulus surrounding the PVC casing.

### Geotechnical Conditions

AC pavements were encountered at the ground surface of Infiltration Test Nos. I-1 through I-5. The pavement sections generally consist of 0 to 6± inches of AC, underlain by 0 to 9± inches of aggregate base. An 8±-inch-thick PCC section was encountered at the ground surface at Infiltration Test Nos. I-6. Steel reinforcement was not encountered at this location. Artificial fill soils were encountered beneath the existing pavements at all of the infiltration boring location, extending to depths of 3 to 4± feet below the existing site grades. The fill soils generally consist of medium dense to dense silty sands, with occasional loose sands. The fill soils possess a disturbed mottled appearance resulting in their classification as artificial fill. Native alluvial soils were encountered beneath the fill soils at all of the infiltration boring locations, extending to at least the maximum depth explored of 12± feet. The alluvium generally consists of loose sands, silty sands and silty sands to sandy silts, with occasional medium dense silty sands. The Boring Logs, which illustrate the conditions encountered at the boring locations, are included with this report.

## Infiltration Testing

As previously mentioned, the infiltration testing was performed in general accordance with the guidelines published in Riverside County – Low Impact Development BMP Design Handbook – Section 2.3 of Appendix A, which apply to San Bernardino County.

### Pre-soaking

In accordance with the county infiltration standards for sandy soils, all infiltration test borings were pre-soaked 2 hours prior to the infiltration testing or until all of the water had percolated through the test holes. The pre-soaking process consisted of filling test borings by inverting a full 5-gallon bottle of clear water supported over each hole so that the water flow into the hole holds **constant at a level at least 5 times the hole's radius above the gravel at the bottom of each hole**. Pre-soaking was completed after all of the water had percolated through the test holes.

### Infiltration Testing

Following the pre-soaking process of the infiltration test borings, SCG performed the infiltration testing. **Each test hole was filled with water to a depth of at least 5 times the hole's radius above the gravel at the bottom of the test holes.** In accordance with the Riverside County guidelines, **since "sandy soils" (where 6 inches of water infiltrated into the surrounding soils in less than 25 minutes for two consecutive readings)** were encountered at the bottom of the infiltration test borings, readings were taken at 10-minute intervals for a total of 1 hour. After each reading, water was added to the borings so that the depth of the water was at least 5 times the radius of the hole. The water level readings are presented on the spreadsheets enclosed with this report. The infiltration rates for each of the timed intervals are also tabulated on the spreadsheets.

The infiltration rates from the tests are tabulated in inches per hour. In accordance with the typically accepted practice, it is recommended that the most conservative reading from the latter part of the infiltration tests be used as the design infiltration rate. The rates are summarized below:

<u>Infiltration Test No.</u>	<u>Depth (feet)</u>	<u>Soil Description</u>	<u>Infiltration Rate (inches/hour)</u>
I-1	10	Silty fine Sand, little medium Sand	3.9
I-2	12	Silty fine to medium Sand	3.0
I-3	12	Silty fine to medium Sand, trace coarse Sand	4.6
I-4	12	Silty fine Sand to fine Sandy Silt, trace medium Sand	3.1
I-5	10	Silty fine Sand, little medium Sand, trace fine Gravel	3.5
I-6	10	Silty fine Sand to fine Sandy Silt, trace medium Sand, trace fine Gravel	3.0



## Laboratory Testing

### Moisture Content

The moisture contents for the recovered soil samples within the borings were determined in accordance with ASTM D-2216 and are expressed as a percentage of the dry weight. These test results are presented on the Boring Logs.

### Grain Size Analysis

The grain size distribution of selected soils collected from the base of each infiltration test boring have been determined using a range of wire mesh screens. These tests were performed in general accordance with ASTM D-422 and/or ASTM D-1140. The weight of the portion of the sample retained on each screen is recorded and the percentage finer or coarser of the total weight is calculated. The results of these tests are presented on Plates C-1 through C-6 of this report.

### Design Recommendations

Six (6) infiltration tests were performed at the subject site. As noted above, the infiltration rates at these locations vary from 3.0 to 4.6 inches per hour. The major factor affecting the difference in infiltration rates at the infiltration test locations is the presence of silt in the soils at the tested depths. Based on the infiltration test results, we recommend an infiltration rate of 3.0 inches per hour be used in the design of the infiltration systems, if the bottom of the infiltration systems extend between 10 to 12± feet below the existing site grades.

The design of the storm water infiltration systems should be performed by the project civil engineer, in accordance with the City of Ontario and/or County of San Bernardino guidelines. It is recommended that the system be constructed so as to facilitate removal of silt and clay, or other deleterious materials from any water that may enter the systems. The presence of such materials would decrease the effective infiltration rates. It is recommended that the project civil engineer apply an appropriate factor of safety. The infiltration rates recommended above is based on the assumption that only clean water will be introduced to the subsurface profile. Any fines, debris, or organic materials could significantly impact the infiltration rate. It should be noted that the recommended infiltration rates are based on infiltration testing at six (6) discrete locations and that the overall infiltration rates of the proposed infiltration systems could vary considerably.

### Infiltration Rate Considerations

The infiltration rates presented herein was determined in accordance with the San Bernardino County guidelines and are considered valid only for the time and place of the actual test. Varying subsurface conditions will exist in other areas of the site, which could alter the recommended infiltration rates presented above. The infiltration rates will decline over time between maintenance cycles as silt or clay particles accumulate on the BMP surface. The infiltration rate is highly dependent upon a number of factors, including density, silt and clay content, grainsize distribution throughout the range of particle sizes, and particle shape. Small changes in these factors can cause large changes in the infiltration rates.

Infiltration rates are based on unsaturated flow. As water is introduced into soils by infiltration, the soils become saturated and the wetting front advances from the unsaturated zone to the saturated zone. Once the soils become saturated, infiltration rates become zero, and water can only move through soils by hydraulic conductivity at a rate determined by pressure head and soil permeability. Changes in soil moisture content will affect the infiltration rate. Infiltration rates should be expected to decrease until the soils become saturated. Soil permeability values will then govern groundwater movement. Permeability values may be on the order of 10 to 20 times less than infiltration rates. The system designer should incorporate adequate factors of safety and allow for overflow design into appropriate traditional storm drain systems, which would transport storm water off-site.

### Construction Considerations

The infiltration rates presented in this report are specific to the tested locations and tested depths. Infiltration rates can be significantly reduced if the soils are exposed to excessive disturbance or compaction during construction. Compaction of the soils at the bottom of the infiltration system can significantly reduce the infiltration ability of the basins. Therefore, the subgrade soils within proposed infiltration system areas should not be over-excavated, undercut or compacted in any significant manner. It is recommended that a note to this effect be added to the project plans and/or specifications.

We recommend that a representative from the geotechnical engineer be on-site during the construction of the proposed infiltration systems to identify the soil classification at the base of each system. It should be confirmed that the soils at the base of the proposed infiltration systems correspond with those presented in this report to ensure that the performance of the systems will be consistent with the rates reported herein.

We recommend that scrapers and other rubber-tired heavy equipment not be operated on the basin bottom, or at levels lower than 2 feet above the bottom of the system, particularly within basins. As such, the bottom 24 inches of the infiltration systems should be excavated with non-rubber-tired equipment, such as excavators.

### Basin Maintenance

The proposed project may include infiltration basins. Water flowing into these basins will carry some level of sediment. Wind-blown sediments and erosion of the basin side walls will also contribute to sediment deposition at the bottom of the basin. This layer has the potential to significantly reduce the infiltration rate of the basin subgrade soils. Therefore, a formal basin maintenance program should be established to ensure that these silt and clay deposits are removed from the basin on a regular basis. Appropriate vegetation on the basin sidewalls and bottom may reduce erosion and sediment deposition.

Basin maintenance should also include measures to prevent animal burrows, and to repair any burrows or damage caused by such. Animal burrows in the basin sidewalls can significantly increase the risk of erosion and piping failures.

## Location of Infiltration Systems

The use of on-site storm water infiltration systems carries a risk of creating adverse geotechnical conditions. Increasing the moisture content of the soil can cause the soil to lose internal shear strength and increase its compressibility, resulting in a change in the designed engineering properties. Overlying structures and pavements in the infiltration area could potentially be damaged due to saturation of the subgrade soils. The proposed infiltration systems for this site should be located at least 25 feet away from any structures, including retaining walls. Even with this provision of locating the infiltration system at least 25 feet from the building(s), it is possible that infiltrating water into the subsurface soils could have an adverse effect on the proposed or existing structures. It should also be noted that utility trenches which happen to collect storm water can also serve as conduits to transmit storm water toward the structure, depending on the slope of the utility trench. Therefore, consideration should also be given to the proposed locations of underground utilities which may pass near the proposed infiltration system.

The infiltration system designer should also give special consideration to the effect that the proposed infiltration systems may have on nearby subterranean structures, open excavations, or descending slopes. In particular, infiltration systems should not be located near the crest of descending slopes, particularly where the slopes are comprised of granular soils. Such systems will require specialized design and analysis to evaluate the potential for slope instability, piping failures and other phenomena that typically apply to earthen dam design. This type of analysis is beyond the scope of this infiltration test report, but these factors should be considered by the infiltration system designer when locating the infiltration systems.

## General Comments

This report has been prepared as an instrument of service for use by the client in order to aid in the evaluation of this property and to assist the architects and engineers in the design and preparation of the project plans and specifications. This report may be provided to the contractor(s) and other design consultants to disclose information relative to the project. However, this report is not intended to be utilized as a specification in and of itself, without appropriate interpretation by the project architect, structural engineer, and/or civil engineer. The design of the proposed storm water infiltration system is the responsibility of the civil engineer. The role of the geotechnical engineer is limited to determination of infiltration rate only. By using the design infiltration rate contained herein, the civil engineer agrees to indemnify, defend, and hold harmless the geotechnical engineer for all aspects of the design and performance of the proposed storm water infiltration system. The reproduction and distribution of this report must be authorized by the client and Southern California Geotechnical, Inc. Furthermore, any reliance **on this report by an unauthorized third party is at such party's sole risk, and we accept no** responsibility for damage or loss which may occur.

The analysis of this site was based on a subsurface profile interpolated from limited discrete soil samples. While the materials encountered in the project area are considered to be representative of the total area, some variations should be expected between boring locations and testing depths. If the conditions encountered during construction vary significantly from those detailed herein, we should be contacted immediately to determine if the conditions alter the recommendations contained herein.

This report has been based on assumed or provided characteristics of the proposed development. It is recommended that the owner, client, architect, structural engineer, and civil engineer carefully review these assumptions to ensure that they are consistent with the characteristics of the proposed development. If discrepancies exist, they should be brought to our attention to verify that they do not affect the conclusions and recommendations contained herein. We also recommend that the project plans and specifications be submitted to our office for review to verify that our recommendations have been correctly interpreted. The analysis, conclusions, and recommendations contained within this report have been promulgated in accordance with generally accepted professional geotechnical engineering practice. No other warranty is implied or expressed.

### Closure

We sincerely appreciate the opportunity to be of service on this project. We look forward to providing additional consulting services during the course of the project. If we may be of further assistance in any manner, please contact our office.

Respectfully Submitted,

### **SOUTHERN CALIFORNIA GEOTECHNICAL, INC.**



Joseph Lozano Leon  
Staff Engineer

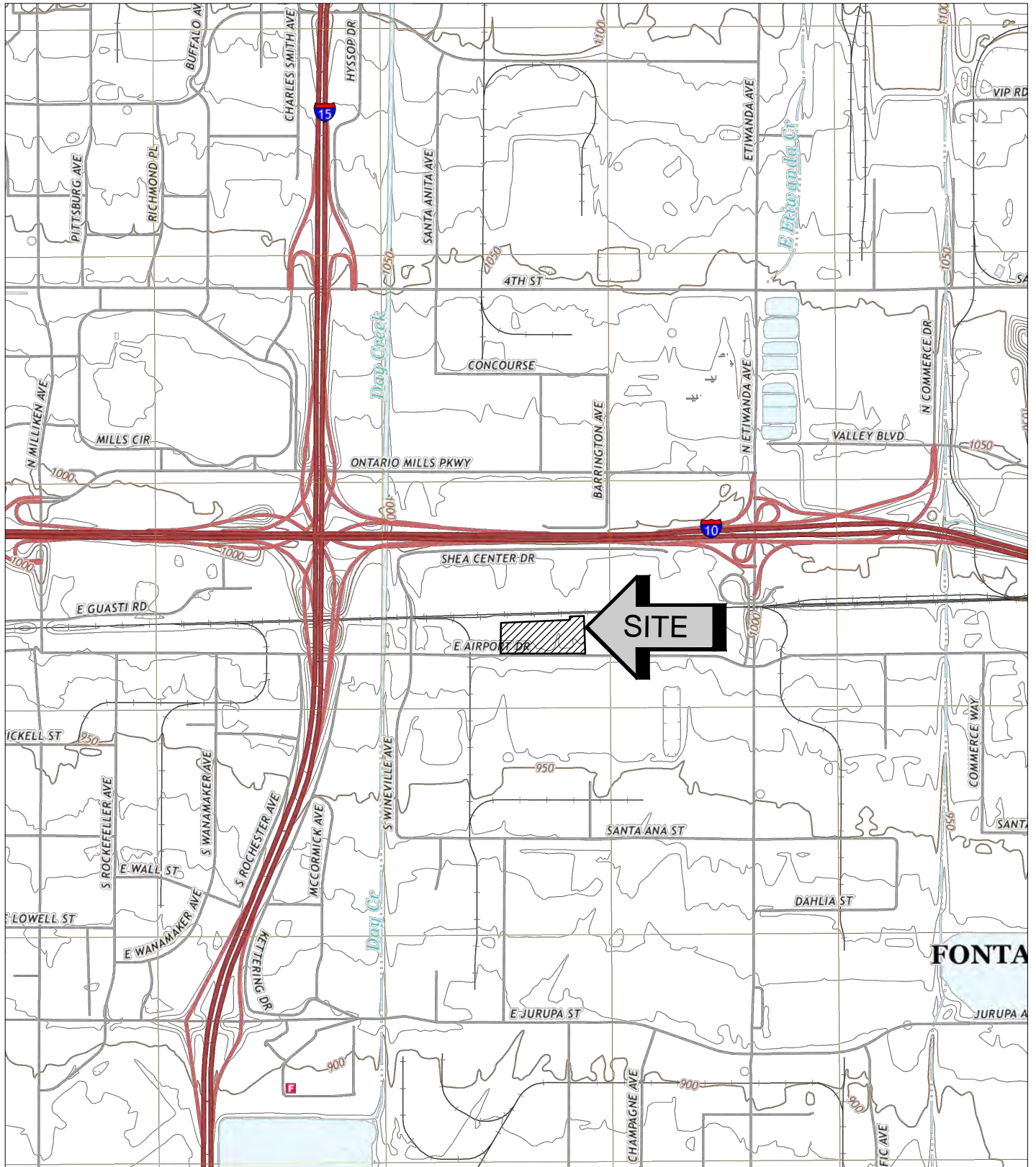


Robert G. Trazo, GE 2655  
Principal Engineer



Distribution: (1) Addressee

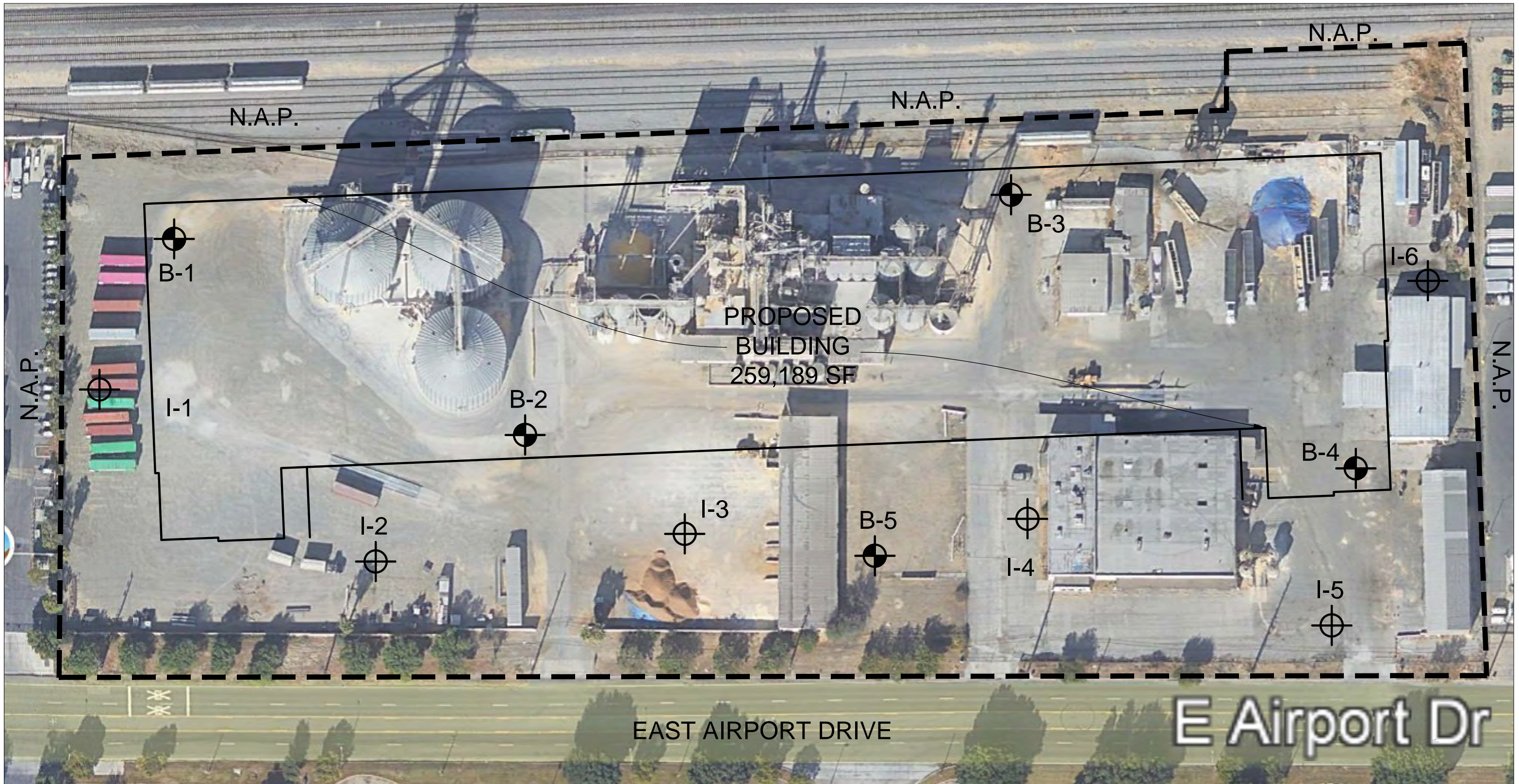
Enclosures: Plate 1 - Site Location Map  
Plate 2 - Infiltration Test Location Plan  
Boring Log Legend and Logs (8 pages)  
Infiltration Test Results Spreadsheets (6 pages)  
Grain Size Distribution Graphs (6 pages)






SOURCE: USGS TOPOGRAPHIC MAP OF THE GUASTI QUADRANGLE, SAN BERNARDINO COUNTY, CALIFORNIA, 2021.



<b>SITE LOCATION MAP</b>	
PROPOSED WAREHOUSE	
ONTARIO, CALIFORNIA	
SCALE: 1" = 2000'	
DRAWN: JLL	
CHKD: RGT	
SCG PROJECT 22G128-2	
PLATE 1	<b>SOUTHERN CALIFORNIA GEOTECHNICAL</b>



**GEOTECHNICAL LEGEND**

-  APPROXIMATE INFILTRATION TEST LOCATION
-  APPROXIMATE BORING LOCATION FROM CONCURRENT STUDY (SCG PROJECT NO. 22G128-1)
-  PROPERTY LINE



NOTE: PRELIMINARY SITE PLAN PREPARED BY RGA.  
AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH.

**INFILTRATION TEST LOCATION PLAN**

PROPOSED WAREHOUSE  
ONTARIO, CALIFORNIA

SCALE: 1" = 80'

DRAWN: JLL  
CHKD: RGT






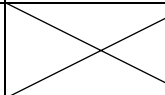
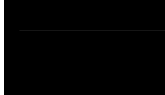

SCG PROJECT  
22G128-2

PLATE 2



**SOUTHERN CALIFORNIA GEOTECHNICAL**

# BORING LOG LEGEND

SAMPLE TYPE	GRAPHICAL SYMBOL	SAMPLE DESCRIPTION
AUGER		SAMPLE COLLECTED FROM AUGER CUTTINGS, NO FIELD MEASUREMENT OF SOIL STRENGTH. (DISTURBED)
CORE		ROCK CORE SAMPLE: TYPICALLY TAKEN WITH A DIAMOND-TIPPED CORE BARREL. TYPICALLY USED ONLY IN HIGHLY CONSOLIDATED BEDROCK.
GRAB		SOIL SAMPLE TAKEN WITH NO SPECIALIZED EQUIPMENT, SUCH AS FROM A STOCKPILE OR THE GROUND SURFACE. (DISTURBED)
CS		CALIFORNIA SAMPLER: 2-1/2 INCH I.D. SPLIT BARREL SAMPLER, LINED WITH 1-INCH HIGH BRASS RINGS. DRIVEN WITH SPT HAMMER. (RELATIVELY UNDISTURBED)
NSR		NO RECOVERY: THE SAMPLING ATTEMPT DID NOT RESULT IN RECOVERY OF ANY SIGNIFICANT SOIL OR ROCK MATERIAL.
SPT		STANDARD PENETRATION TEST: SAMPLER IS A 1.4 INCH INSIDE DIAMETER SPLIT BARREL, DRIVEN 18 INCHES WITH THE SPT HAMMER. (DISTURBED)
SH		SHELBY TUBE: TAKEN WITH A THIN WALL SAMPLE TUBE, PUSHED INTO THE SOIL AND THEN EXTRACTED. (UNDISTURBED)
VANE		VANE SHEAR TEST: SOIL STRENGTH OBTAINED USING A 4 BLADED SHEAR DEVICE. TYPICALLY USED IN SOFT CLAYS-NO SAMPLE RECOVERED.

## COLUMN DESCRIPTIONS

### DEPTH:

Distance in feet below the ground surface.

### SAMPLE:

Sample Type as depicted above.

### BLOW COUNT:

Number of blows required to advance the sampler 12 inches using a 140 lb hammer with a 30-inch drop. 50/3" indicates penetration refusal (>50 blows) at 3 inches. WH indicates that the weight of the hammer was sufficient to push the sampler 6 inches or more.

### POCKET PEN.:

Approximate shear strength of a cohesive soil sample as measured by pocket penetrometer.

### GRAPHIC LOG:

Graphic Soil Symbol as depicted on the following page.

### DRY DENSITY:

Dry density of an undisturbed or relatively undisturbed sample in lbs/ft<sup>3</sup>.

### MOISTURE CONTENT:

Moisture content of a soil sample, expressed as a percentage of the dry weight.

### LIQUID LIMIT:

The moisture content above which a soil behaves as a liquid.

### PLASTIC LIMIT:

The moisture content above which a soil behaves as a plastic.

### PASSING #200 SIEVE:

The percentage of the sample finer than the #200 standard sieve.

### UNCONFINED SHEAR:

The shear strength of a cohesive soil sample, as measured in the unconfined state.

# SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS	
			GRAPH	LETTER		
<p><b>COARSE GRAINED SOILS</b></p> <p>MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE</p>	<p><b>GRAVEL AND GRAVELLY SOILS</b></p>	<p>CLEAN GRAVELS</p> <p>(LITTLE OR NO FINES)</p>		<b>GW</b>	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES	
		<p>GRAVELS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		<b>GP</b>	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES	
		<p>GRAVELS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		<b>GM</b>	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES	
		<p>GRAVELS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		<b>GC</b>	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES	
	<p><b>SAND AND SANDY SOILS</b></p>	<p>CLEAN SANDS</p> <p>(LITTLE OR NO FINES)</p>		<b>SW</b>	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES	
				<b>SP</b>	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES	
		<p>SANDS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		<b>SM</b>	SILTY SANDS, SAND - SILT MIXTURES	
				<b>SC</b>	CLAYEY SANDS, SAND - CLAY MIXTURES	
			<p><b>SILTS AND CLAYS</b></p> <p>LIQUID LIMIT LESS THAN 50</p>		<b>ML</b>	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
					<b>CL</b>	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
<p><b>SILTS AND CLAYS</b></p> <p>LIQUID LIMIT GREATER THAN 50</p>		<b>OL</b>	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY			
		<b>MH</b>	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS			
		<b>CH</b>	INORGANIC CLAYS OF HIGH PLASTICITY			
<p><b>HIGHLY ORGANIC SOILS</b></p>		<b>OH</b>	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS			
		<b>PT</b>	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS			

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS





JOB NO.: 22G128-2	DRILLING DATE: 2/10/22	WATER DEPTH: Dry
PROJECT: Proposed Warehouse	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: ---
LOCATION: Ontario, California	LOGGED BY: Joseph Lozano Leon	READING TAKEN: At Completion

FIELD RESULTS				GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)			DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	
SURFACE ELEVATION: --- MSL												
				8± inches Aggregate Base								
	X	26		FILL: Gray Brown Silty fine to coarse Sand, little fine Gravel, medium dense-moist		10						
5	X	7		ALLUVIUM: Light Brown to Brown Silty fine Sand, loose-damp		4						
	X	9		@ 8½ feet, little medium Sand		5		31				
10				Boring Terminated at 10'								

TBL 22G128-2.GPJ\_SOCALGEO.GDT 3/9/22



JOB NO.: 22G128-2	DRILLING DATE: 2/10/22	WATER DEPTH: Dry
PROJECT: Proposed Warehouse	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: ---
LOCATION: Ontario, California	LOGGED BY: Joseph Lozano Leon	READING TAKEN: At Completion

FIELD RESULTS				GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)			DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	
SURFACE ELEVATION: --- MSL												
				5 1/2 ± inches Aggregate Base								
	30			FILL: Brown Silty fine Sand, little medium Sand, trace coarse Sand, trace fine Gravel, dense-dry to damp		2						
	4			ALLUVIUM: Gray Brown Silty fine Sand, little medium Sand, trace coarse Sand, loose-damp		6						
5												
	6			Brown Silty fine Sand, trace medium Sand, loose-damp to moist		7						
10				Brown Silty fine to medium Sand, medium dense-moist		8			33			
	23											
					Boring Terminated at 12'							

TBL 22G128-2.GPJ\_SOCALGEO.GDT 3/9/22



JOB NO.: 22G128-2	DRILLING DATE: 2/10/22	WATER DEPTH: Dry
PROJECT: Proposed Warehouse	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: ---
LOCATION: Ontario, California	LOGGED BY: Joseph Lozano Leon	READING TAKEN: At Completion

FIELD RESULTS				GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)			DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	
SURFACE ELEVATION: --- MSL												
					6± inches Asphaltic Concrete							
		8			<u>FILL</u> : Brown fine to medium Sand, little Silt, loose-damp to moist		7					
5		4			<u>ALLUVIUM</u> : Brown fine to medium Sand, little Silt, loose-damp		5					
		7					5					
10		6			Brown to Dark Brown Silty fine to medium Sand, trace coarse Sand, loose-damp to moist		7		20			
					Boring Terminated at 12'							

TBL 22G128-2.GPJ\_SOCALGEO.GDT 3/9/22



JOB NO.: 22G128-2	DRILLING DATE: 2/10/22	WATER DEPTH: Dry
PROJECT: Proposed Warehouse	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: ---
LOCATION: Ontario, California	LOGGED BY: Joseph Lozano Leon	READING TAKEN: At Completion

FIELD RESULTS				GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)			DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	
SURFACE ELEVATION: --- MSL												
					3± inches Asphaltic Concrete, 9± inches of Aggregate Base							
	X	19			<u>FILL</u> : Gray Brown Silty fine to medium Sand, trace coarse Sand, medium dense-damp	5						
5	X	4			<u>ALLUVIUM</u> : Gray Brown Silty fine Sand, little medium Sand, loose, damp to moist	7						
	X	9				7						
10	X	6			Gray Brown Silty fine Sand to fine Sandy Silt, trace medium Sand, loose-very moist	13			52			
					Boring Terminated at 12'							

TBL 22G128-2.GPJ\_SOCALGEO.GDT 3/9/22



JOB NO.: 22G128-2	DRILLING DATE: 2/10/22	WATER DEPTH: Dry
PROJECT: Proposed Warehouse	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: ---
LOCATION: Ontario, California	LOGGED BY: Joseph Lozano Leon	READING TAKEN: At Completion

FIELD RESULTS				GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS					COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)			DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	
SURFACE ELEVATION: --- MSL											
					2½± inches Asphaltic Concrete, 3½± inches of Aggregate Base FILL: Brown Silty fine Sand, trace to little medium Sand, trace coarse Sand, medium dense-moist		8				
5		4			ALLUVIUM: Brown Silty fine Sand, trace to little medium Sand, loose-damp		6				
					Gray Brown to Dark Gray Brown Silty fine Sand to fine Sandy Silt, loose-very moist		14				
10					Gray Brown Silty fine Sand, little medium Sand, trace fine Gravel, loose-moist		9		24		
Boring Terminated at 10'											

TBL 22G128-2.GPJ\_SOCALGEO.GDT 3/9/22



JOB NO.: 22G128-2	DRILLING DATE: 2/10/22	WATER DEPTH: Dry
PROJECT: Proposed Warehouse	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: ---
LOCATION: Ontario, California	LOGGED BY: Joseph Lozano Leon	READING TAKEN: At Completion

FIELD RESULTS				GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)			DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	
SURFACE ELEVATION: --- MSL												
				8± inches Portland Cement Concrete								
	X	43		FILL: Gray Brown Silty fine Sand, little medium Sand, trace coarse Sand, dense-moist		9						
5	X	8		ALLUVIUM: Gray Brown Silty fine Sand, trace medium Sand, loose-moist		9						
	X	6		Gray Brown Silty fine Sand to fine Sandy Silt, trace medium Sand, trace fine Gravel, loose-very moist		14			43			
10				Boring Terminated at 10'								

TBL 22G128-2.GPJ\_SOCALGEO.GDT 3/9/22

## INFILTRATION CALCULATIONS

Project Name	Proposed Warehouse
Project Location	Ontario, California
Project Number	22G128-2
Engineer	Caleb Brackett

Test Hole Radius	4 (in)
Test Depth	10.20 (ft)

Infiltration Test Hole	I-1
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Soil Criteria Test							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (in)	Did 6 inches of water seep away in less than 25 minutes?	Sandy Soils or Non-Sandy Soils?
1	Initial	8:28 AM	25.00	8.10	24.00	YES	SANDY SOILS
	Final	8:53 AM		10.10			
2	Initial	8:55 AM	25.00	8.10	24.00	YES	SANDY SOILS
	Final	9:20 AM		10.10			

Test Data							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (ft)	Average Head Height (ft)	Infiltration Rate Q (in/hr)
1	Initial	9:21 AM	10.00	8.20	0.80	1.60	5.43
	Final	9:31 AM		9.00			
2	Initial	9:31 AM	10.00	8.20	0.70	1.65	4.62
	Final	9:41 AM		8.90			
3	Initial	9:41 AM	10.00	8.20	0.60	1.70	3.86
	Final	9:51 AM		8.80			
4	Initial	9:51 AM	10.00	8.30	0.60	1.60	4.08
	Final	10:01 AM		8.90			
5	Initial	10:01 AM	10.00	8.20	0.60	1.70	3.86
	Final	10:11 AM		8.80			
6	Initial	10:11 AM	10.00	8.20	0.60	1.70	3.86
	Final	10:21 AM		8.80			
7	Initial	10:21 AM	10.00	8.20	0.60	1.70	3.86
	Final	10:31 AM		8.80			

Per County Standards, Infiltration Rate calculated as follows:

Where:

$$Q = \frac{\Delta H(60r)}{\Delta t(r + 2H_{avg})}$$

Q = Infiltration Rate (in inches per hour)  
 ΔH = Change in Height (Water Level) over the time interval  
 r = Test Hole (Borehole) Radius  
 Δt = Time Interval  
 H<sub>avg</sub> = Average Head Height over the time interval

**INFILTRATION CALCULATIONS**

Project Name	Proposed Warehouse
Project Location	Ontario, California
Project Number	22G128-2
Engineer	Caleb Brackett

Test Hole Radius	4 (in)
Test Depth	12.00 (ft)

Infiltration Test Hole	I-2
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Soil Criteria Test							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (in)	Did 6 inches of water seep away in less than 25 minutes?	Sandy Soils or Non-Sandy Soils?
1	Initial	7:07 AM	25.00	9.00	24.00	YES	SANDY SOILS
	Final	7:32 AM		11.00			
2	Initial	7:33 AM	25.00	9.00	22.80	YES	SANDY SOILS
	Final	7:58 AM		10.90			

Test Data							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (ft)	Average Head Height (ft)	Infiltration Rate Q (in/hr)
1	Initial	7:58 AM	10.00	9.00	0.80	2.60	3.47
	Final	8:08 AM		9.80			
2	Initial	8:09 AM	10.00	9.00	0.80	2.60	3.47
	Final	8:19 AM		9.80			
3	Initial	8:20 AM	10.00	9.00	0.70	2.65	2.98
	Final	8:30 AM		9.70			
4	Initial	8:30 AM	10.00	9.00	0.80	2.60	3.47
	Final	8:40 AM		9.80			
5	Initial	8:40 AM	10.00	9.00	0.70	2.65	2.98
	Final	8:50 AM		9.70			
6	Initial	8:50 AM	10.00	9.00	0.70	2.65	2.98
	Final	9:00 AM		9.70			

Per County Standards, Infiltration Rate calculated as follows:

Where:

$$Q = \frac{\Delta H(60r)}{\Delta t(r + 2H_{avg})}$$

- Q = Infiltration Rate (in inches per hour)
- ΔH = Change in Height (Water Level) over the time interval
- r = Test Hole (Borehole) Radius
- Δt = Time Interval
- H<sub>avg</sub> = Average Head Height over the time interval



**INFILTRATION CALCULATIONS**

Project Name	Proposed Warehouse
Project Location	Ontario, California
Project Number	22G128-2
Engineer	Sam Bergeland

Test Hole Radius	4 (in)
Test Depth	12.40 (ft)

Infiltration Test Hole	I-3
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Soil Criteria Test							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (in)	Did 6 inches of water seep away in less than 25 minutes?	Sandy Soils or Non-Sandy Soils?
1	Initial	10:15 AM	25.00	10.40	24.00	YES	SANDY SOILS
	Final	10:40 AM		12.40			
2	Initial	10:42 AM	25.00	10.40	24.00	YES	SANDY SOILS
	Final	11:07 AM		12.40			

Test Data							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (ft)	Average Head Height (ft)	Infiltration Rate Q (in/hr)
1	Initial	11:08 AM	10.00	10.40	0.80	1.60	5.43
	Final	11:18 AM		11.20			
2	Initial	11:20 AM	10.00	10.40	0.90	1.55	6.29
	Final	11:30 AM		11.30			
3	Initial	11:31 AM	10.00	10.40	0.80	1.60	5.43
	Final	11:41 AM		11.20			
4	Initial	11:42 AM	10.00	10.40	0.80	1.60	5.43
	Final	11:52 AM		11.20			
5	Initial	11:55 AM	10.00	10.40	0.70	1.65	4.62
	Final	12:05 PM		11.10			
6	Initial	12:06 PM	10.00	10.40	0.70	1.65	4.62
	Final	12:16 PM		11.10			
7	Initial	12:18 PM	10.00	10.40	0.70	1.65	4.62
	Final	12:28 PM		11.10			
8	Initial	12:29 PM	10.00	10.40	0.70	1.65	4.62
	Final	12:39 PM		11.10			

Per County Standards, Infiltration Rate calculated as follows:

Where:

$$Q = \frac{\Delta H(60r)}{\Delta t(r + 2H_{avg})}$$

- Q = Infiltration Rate (in inches per hour)
- ΔH = Change in Height (Water Level) over the time interval
- r = Test Hole (Borehole) Radius
- Δt = Time Interval
- H<sub>avg</sub> = Average Head Height over the time interval

## INFILTRATION CALCULATIONS

Project Name	Proposed Warehouse
Project Location	Ontario, California
Project Number	22G128-2
Engineer	Sam Bergeland

Test Hole Radius	4 (in)
Test Depth	11.70 (ft)

Infiltration Test Hole	I-4
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Soil Criteria Test							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (in)	Did 6 inches of water seep away in less than 25 minutes?	Sandy Soils or Non-Sandy Soils?
1	Initial	7:56 AM	25.00	10.00	20.40	YES	SANDY SOILS
	Final	8:21 AM		11.70			
2	Initial	8:22 AM	25.00	10.00	20.40	YES	SANDY SOILS
	Final	8:47 AM		11.70			

Test Data							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (ft)	Average Head Height (ft)	Infiltration Rate Q (in/hr)
1	Initial	8:48 AM	10.00	10.30	0.50	1.15	4.56
	Final	8:58 AM		10.80			
2	Initial	8:59 AM	10.00	10.30	0.40	1.20	3.51
	Final	9:09 AM		10.70			
3	Initial	9:10 AM	10.00	10.30	0.30	1.25	2.54
	Final	9:20 AM		10.60			
4	Initial	9:20 AM	10.00	10.30	0.20	1.30	1.64
	Final	9:30 AM		10.50			
5	Initial	9:31 AM	10.00	10.10	0.50	1.35	3.96
	Final	9:41 AM		10.60			
6	Initial	9:42 AM	10.00	10.10	0.40	1.40	3.06
	Final	9:52 AM		10.50			
7	Initial	9:24 AM	10.00	10.10	0.40	1.40	3.06
	Final	9:34 AM		10.50			

Per County Standards, Infiltration Rate calculated as follows:

Where:

$$Q = \frac{\Delta H(60r)}{\Delta t(r + 2H_{avg})}$$

Q = Infiltration Rate (in inches per hour)  
 ΔH = Change in Height (Water Level) over the time interval  
 r = Test Hole (Borehole) Radius  
 Δt = Time Interval  
 H<sub>avg</sub> = Average Head Height over the time interval

**INFILTRATION CALCULATIONS**

Project Name	Proposed Warehouse
Project Location	Ontario, California
Project Number	22G128-2
Engineer	Sam Bergeland

Test Hole Radius	4 (in)
Test Depth	10.20 (ft)

Infiltration Test Hole I-5

Soil Criteria Test							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (in)	Did 6 inches of water seep away in less than 25 minutes?	Sandy Soils or Non-Sandy Soils?
1	Initial	7:42 AM	25.00	8.10	20.40	YES	SANDY SOILS
	Final	8:07 AM		9.80			
2	Initial	8:08 AM	25.00	8.10	21.60	YES	SANDY SOILS
	Final	8:33 AM		9.90			

Test Data							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (ft)	Average Head Height (ft)	Infiltration Rate Q (in/hr)
1	Initial	8:35 AM	10.00	8.30	0.80	1.50	5.76
	Final	8:45 AM		9.10			
2	Initial	8:46 AM	10.00	8.80	0.60	1.10	5.68
	Final	8:56 AM		9.40			
3	Initial	8:57 AM	10.00	8.80	0.50	1.15	4.56
	Final	9:07 AM		9.30			
4	Initial	9:08 AM	10.00	8.80	0.50	1.15	4.56
	Final	9:18 AM		9.30			
5	Initial	9:19 AM	10.00	8.80	0.40	1.20	3.51
	Final	9:29 AM		9.20			
6	Initial	9:30 AM	10.00	8.80	0.40	1.20	3.51
	Final	9:40 AM		9.20			
7	Initial	9:42 AM	10.00	8.80	0.40	1.20	3.51
	Final	9:52 AM		9.20			
8	Initial	9:53 AM	10.00	8.80	0.40	1.20	3.51
	Final	10:03 AM		9.20			

Per County Standards, Infiltration Rate calculated as follows:

Where:

$$Q = \frac{\Delta H(60r)}{\Delta t(r + 2H_{avg})}$$

- Q = Infiltration Rate (in inches per hour)
- ΔH = Change in Height (Water Level) over the time interval
- r = Test Hole (Borehole) Radius
- Δt = Time Interval
- H<sub>avg</sub> = Average Head Height over the time interval

## INFILTRATION CALCULATIONS

Project Name	Proposed Warehouse
Project Location	Ontario, California
Project Number	22G128-2
Engineer	Sam Bergeland

Test Hole Radius	4 (in)
Test Depth	10.20 (ft)

Infiltration Test Hole	I-6
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Soil Criteria Test							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (in)	Did 6 inches of water seep away in less than 25 minutes?	Sandy Soils or Non-Sandy Soils?
1	Initial	7:49 AM	25.00	8.10	19.20	YES	SANDY SOILS
	Final	8:14 AM		9.70			
2	Initial	8:15 AM	25.00	8.10	20.40	YES	SANDY SOILS
	Final	8:40 AM		9.80			

Test Data							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (ft)	Average Head Height (ft)	Infiltration Rate Q (in/hr)
1	Initial	10:17 AM	10.00	8.10	0.60	1.80	3.66
	Final	10:27 AM		8.70			
2	Initial	10:28 AM	10.00	8.10	0.70	1.75	4.38
	Final	10:38 AM		8.80			
3	Initial	10:39 AM	10.00	8.10	0.50	1.85	2.98
	Final	10:49 AM		8.60			
4	Initial	10:50 AM	10.00	8.10	0.60	1.80	3.66
	Final	11:00 AM		8.70			
5	Initial	11:05 AM	10.00	8.10	0.50	1.85	2.98
	Final	11:15 AM		8.60			
6	Initial	11:16 AM	10.00	8.10	0.50	1.85	2.98
	Final	11:26 AM		8.60			
7	Initial	11:27 AM	10.00	8.10	0.50	1.85	2.98
	Final	11:37 AM		8.60			

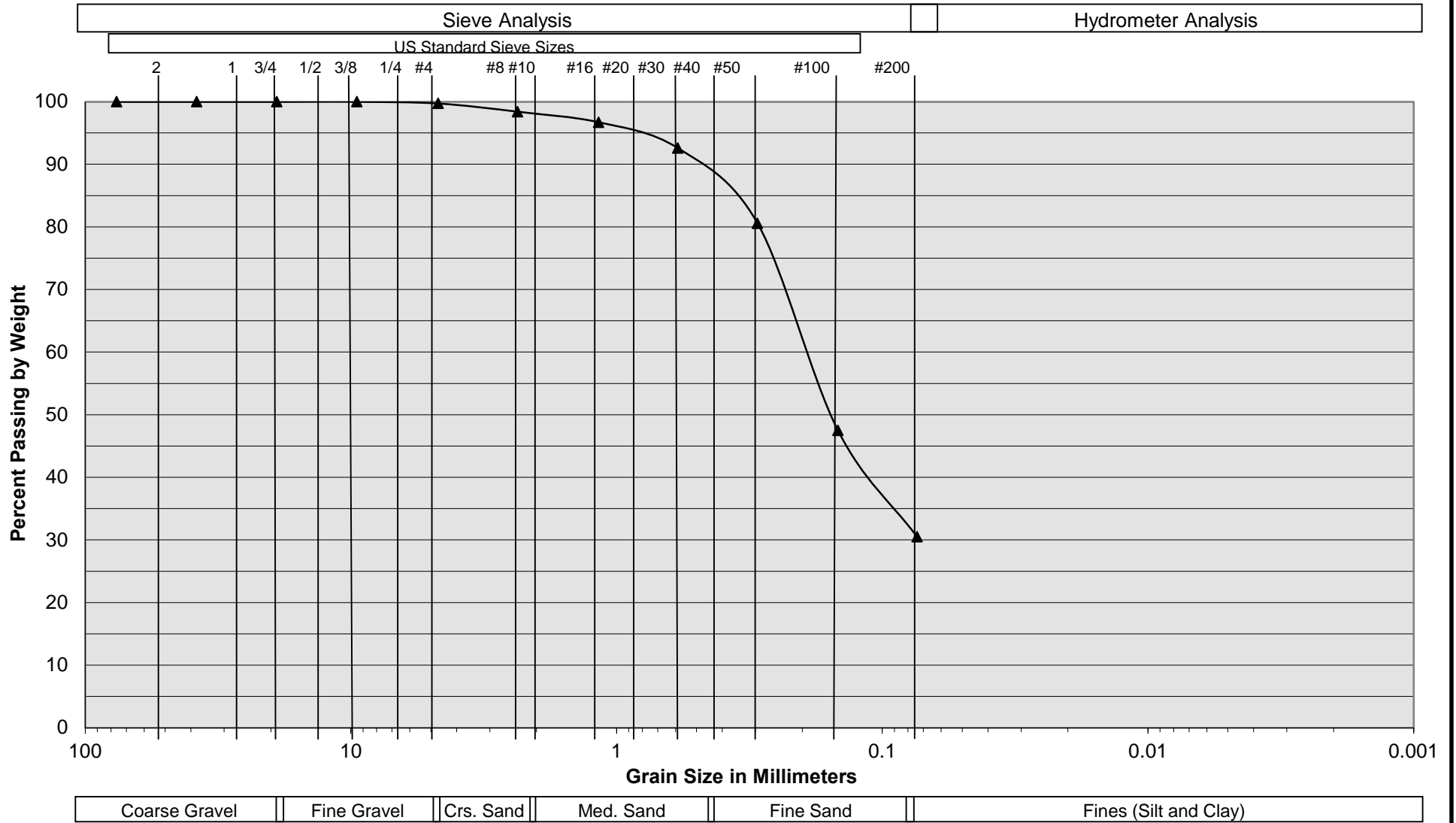
Per County Standards, Infiltration Rate calculated as follows:

Where:

$$Q = \frac{\Delta H(60r)}{\Delta t(r + 2H_{avg})}$$

Q = Infiltration Rate (in inches per hour)  
 ΔH = Change in Height (Water Level) over the time interval  
 r = Test Hole (Borehole) Radius  
 Δt = Time Interval  
 H<sub>avg</sub> = Average Head Height over the time interval

# Grain Size Distribution



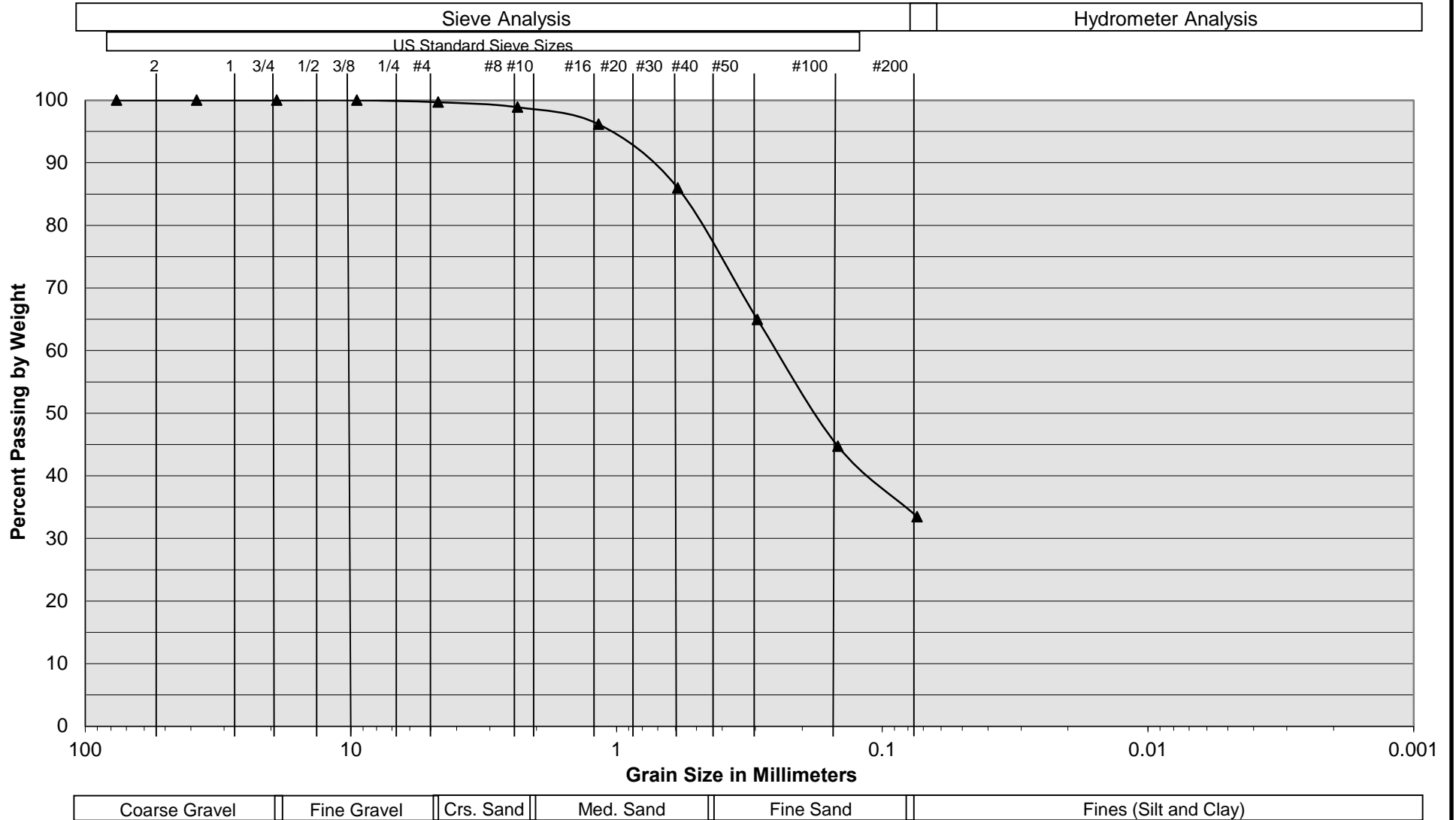
Sample Description	-1 @ 8½'
Soil Classification	Light Brown to Brown Silty fine Sand, little medium Sand

Proposed Warehouse  
 Ontario, California  
 Project No. 22G128-2  
**PLATE C- 1**



**SOUTHERN CALIFORNIA GEOTECHNICAL**  
*A California Corporation*

# Grain Size Distribution



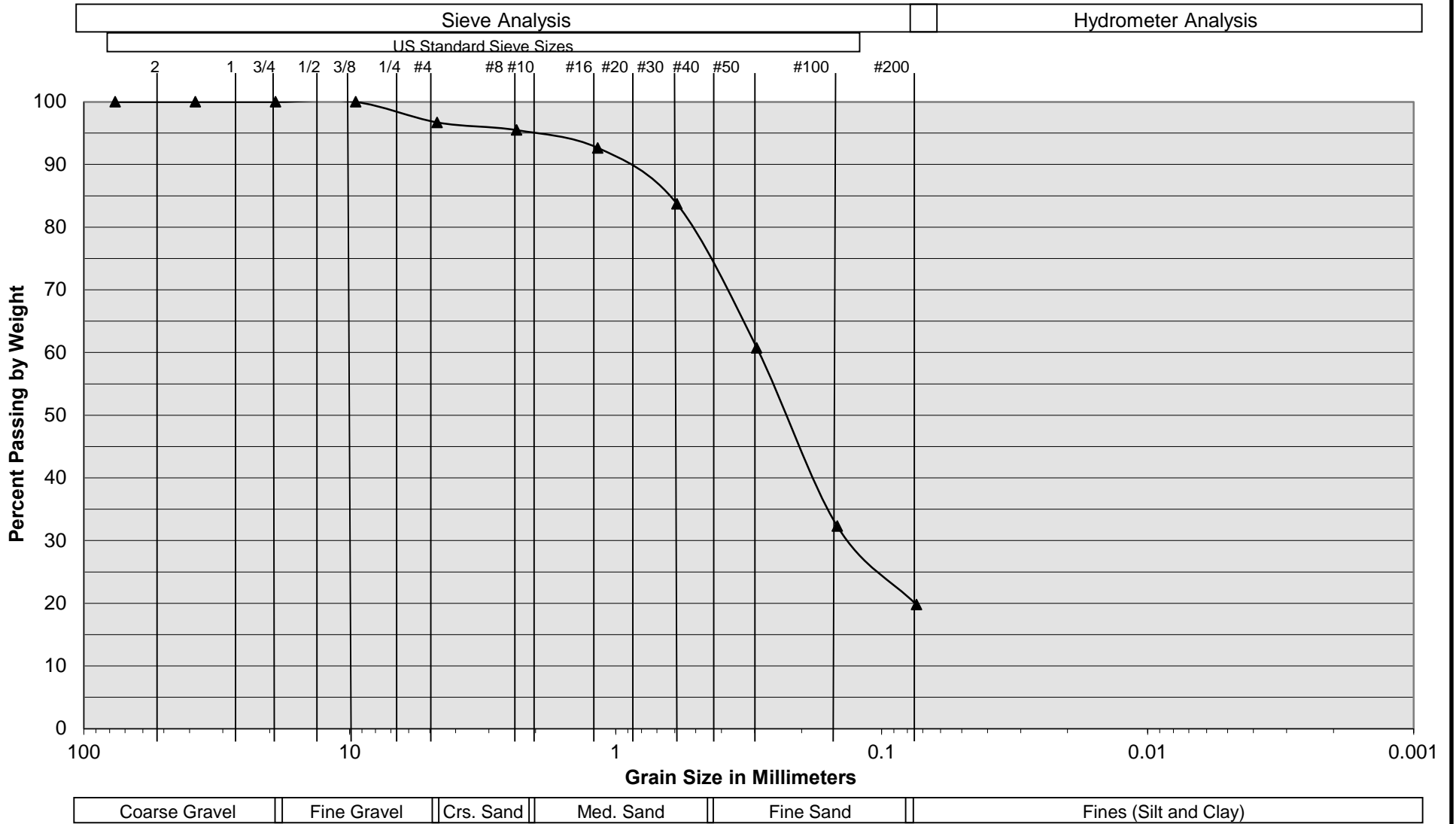
Sample Description	I-2 @ 10½'
Soil Classification	Brown Silty fine to medium Sand

Proposed Warehouse  
 Ontario, California  
 Project No. 22G128-2  
**PLATE C- 2**



**SOUTHERN CALIFORNIA GEOTECHNICAL**  
*A California Corporation*

# Grain Size Distribution



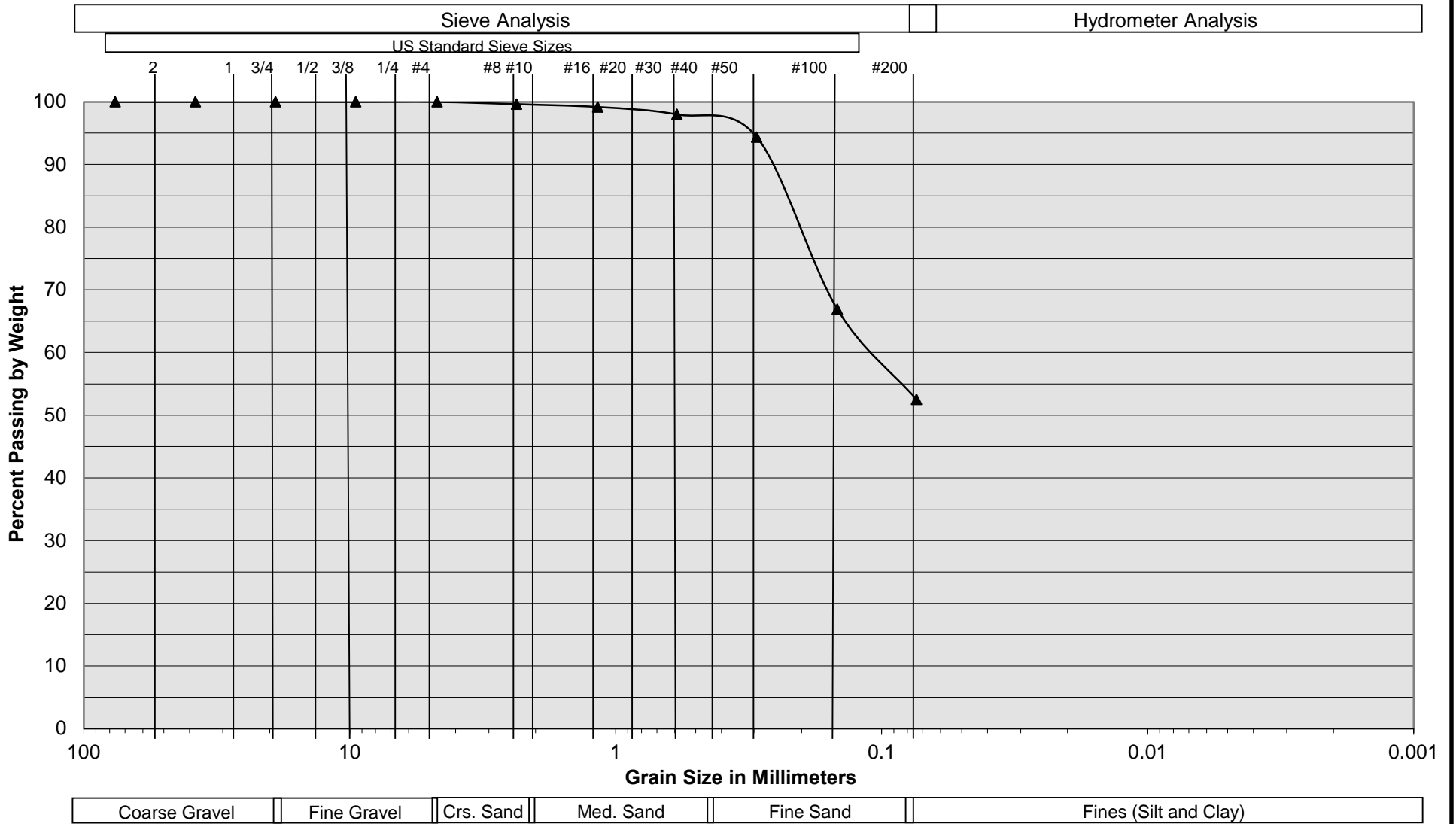
Sample Description	I-3 @ 10½'
Soil Classification	Brown to Dark Brown Silty fine to medium Sand, trace coarse Sand

Proposed Warehouse  
 Ontario, California  
 Project No. 22G128-2  
**PLATE C- 3**



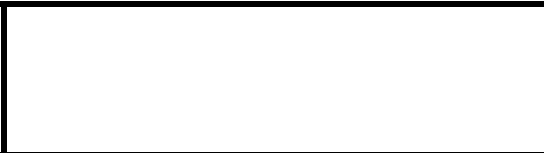
**SOUTHERN CALIFORNIA GEOTECHNICAL**  
A California Corporation

# Grain Size Distribution



Sample Description	I-4 @ 10½'
Soil Classification	Gray Brown Silty fine Sand to fine Sandy Silt, trace medium Sand

Proposed Warehouse  
 Ontario, California  
 Project No. 22G128-2  
**PLATE C- 4**



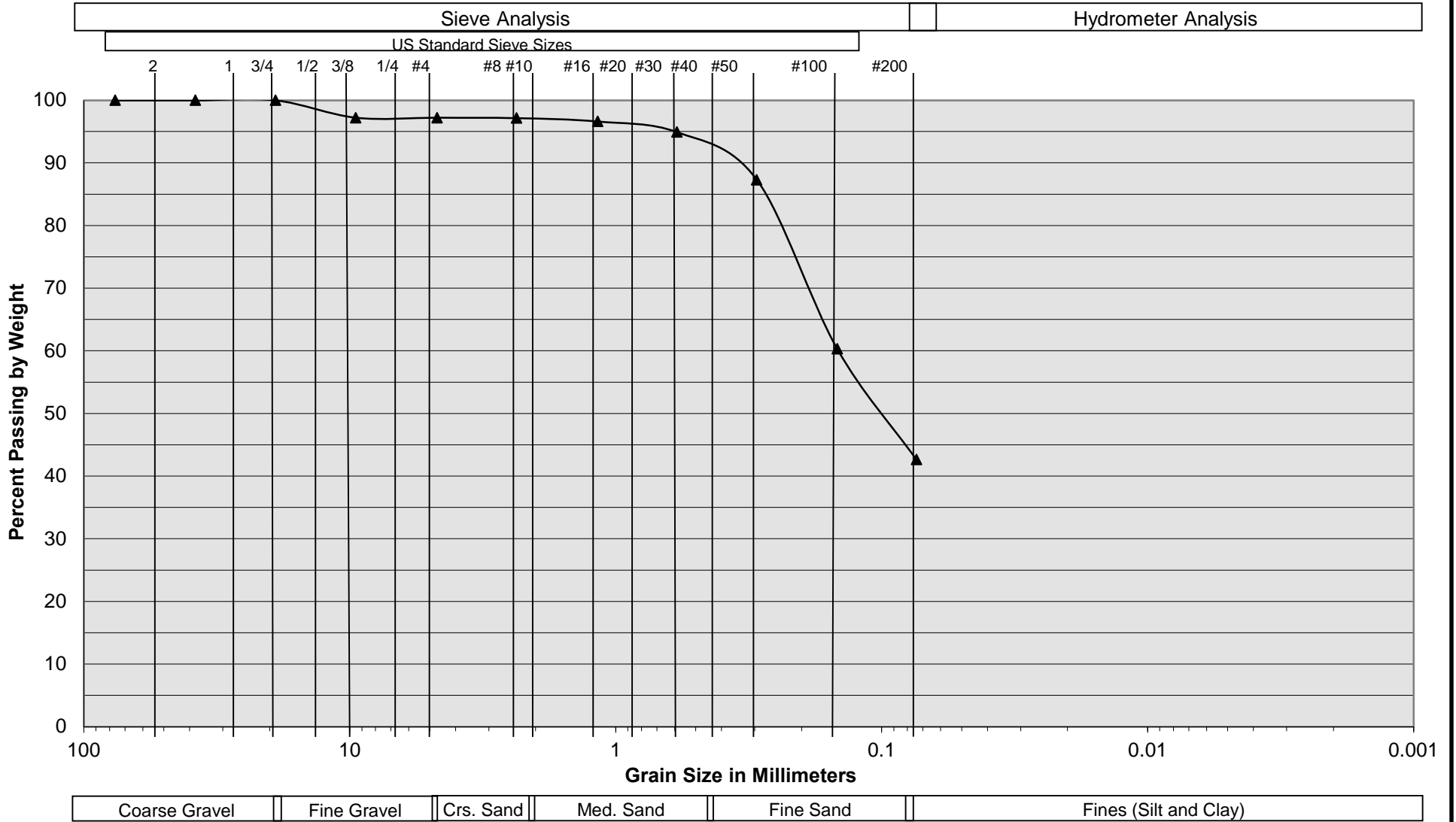


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# Grain Size Distribution



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**5355 East Airport Drive**  
**GREENHOUSE GAS ANALYSIS**  
**CITY OF ONTARIO**

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AUGUST 30, 2022

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## LIST OF ABBREVIATED TERMS

%	Percent
°C	Degrees Celsius
°F	Degrees Fahrenheit
(1)	Reference
<i>2017 Scoping Plan</i>	<i>Final 2017 Scoping Plan Update</i>
AB	Assembly Bill
AB 32	Global Warming Solutions Act of 2006
AB 1493	Pavley Fuel Efficiency Standards
AB 1881	California Water Conservation Landscaping Act of 2006
Annex I	Industrialized Nations
APA	Administrative Procedure Act
AQIA	<i>5355 East Airport Drive Air Quality Impact Analysis</i>
BAU	Business as Usual
C <sub>2</sub> F <sub>6</sub>	Hexafluoroethane
C <sub>2</sub> H <sub>6</sub>	Ethane
C <sub>2</sub> H <sub>2</sub> F <sub>4</sub>	Tetrafluoroethane
C <sub>2</sub> H <sub>4</sub> F <sub>2</sub>	Ethylidene Fluoride
CAA	Federal Clean Air Act
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
CALGAPS	California LBNL GHG Analysis of Policies Spreadsheet
CALGreen	California Green Building Standards Code
CalSTA	California State Transportation Agency
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resource Board
CBSC	California Building Standards Commission
CCAP	Community Climate Action Plan
CEC	California Energy Commission
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
<i>CEQA Guidelines</i>	<i>2019 CEQA Statute and Guidelines</i>
CDFA	California Department of Food and Agriculture
CF <sub>4</sub>	Tetrafluoromethane
CFC	Chlorofluorocarbons

CFC-113	Trichlorotrifluoroethane
CH <sub>4</sub>	Methane
City	City of Ontario
CNRA	California Natural Resources Agency
<i>CNRA 2009</i>	<i>2009 California Climate Adaptation Strategy</i>
CO <sub>2</sub>	Carbon Dioxide
CO <sub>2</sub> e	Carbon Dioxide Equivalent
Convention	United Nation's Framework Convention on Climate Change
COP	Conference of the Parties
CPUC	California Public Utilities Commission
CTC	California Transportation Commission
DOF	Department of Finance
DWR	Department of Water Resources
EMFAC	Emission Factor Model
EPA	Environmental Protection Agency
EV	Electric Vehicle
FED	Functional Equivalent Document
GCC	Global Climate Change
Gg	Gigagram
GHGA	Greenhouse Gas Analysis
GO-Biz	Governor's Office of Business and Economic Development
gpd	Gallons Per Day
gpm	Gallons Per Minute
GWP	Global Warming Potential
H <sub>2</sub> O	Water
HFC	Hydrofluorocarbons
HDT	Heavy-Duty Trucks
HFC-23	Fluoroform
HFC-134a	1,1,1,2-tetrafluoroethane
HFC-152a	1,1-difluoroethane
HHDT	Heavy-Heavy-Duty Trucks
hp	Horsepower
IBANK	California Infrastructure and Economic Development Bank
IPCC	Intergovernmental Panel on Climate Change
IRP	Integrated Resource Planning
ISO	Independent System Operator
ITE	Institute of Transportation Engineers
kWh	Kilowatt Hours

lbs	Pounds
LBL	Lawrence Berkeley National Laboratory
LCA	Life-Cycle Analysis
LCD	Liquid Crystal Display
LCFS	Low Carbon Fuel Standard or Executive Order S-01-07
LDA	Light-Duty Auto
LDT1/LDT2	Light-Duty Trucks
LEV III	Low-Emission Vehicle
LHDT1/LHDT2	Light-Heavy-Duty Trucks
LULUCF	Land-Use, Land-Use Change and Forestry
MCY	Motorcycles
MD	Medium Duty
MDT	Medium-Duty Trucks
MDV	Medium-Duty Vehicles
MHDT	Medium-Heavy-Duty Trucks
MMR	Mandatory Reporting Rule
MMTCO <sub>2e</sub>	Million Metric Ton of Carbon Dioxide Equivalent
mpg	Miles Per Gallon
MPOs	Metropolitan Planning Organizations
MMTCO <sub>2e</sub> /yr	Million Metric Ton of Carbon Dioxide Equivalent Per Year
MT/yr	Metric Tons Per Year
MTCO <sub>2e</sub>	Metric Ton of Carbon Dioxide Equivalent
MTCO <sub>2e</sub> /yr	Metric Ton of Carbon Dioxide Equivalent Per Year
MW	Megawatts
MWh	Megawatts Per Hour
MWEL	California Department of Water Resources' Model Water Efficient
N <sub>2</sub> O	Nitrous Oxide
NDC	Nationally Determined Contributions
NF <sub>3</sub>	Nitrogen Trifluoride
NHTSA	National Highway Traffic Safety Administration
NIOSH	National Institute for Occupational Safety and Health
NO <sub>x</sub>	Nitrogen Oxides
Non-Annex I	Developing Nations
OAL	Office of Administrative Law
ONT	Ontario International Airport
OPR	Office of Planning and Research
PFC	Perfluorocarbons



ppb	Parts Per Billion
ppm	Parts Per Million
ppt	Parts Per Trillion
Project	5355 East Airport Drive
RTP	Regional Transportation Plan
SAFE	Safer Affordable Fuel-Efficient Vehicles Rule
SB	Senate Bill
SB 32	California Global Warming Solutions Act of 2006
SB 375	Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies
SB 1078	Renewable Portfolio Standards
SB 1368	Statewide Retail Provider Emissions Performance Standards
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
Scoping Plan	California Air Resources Board Climate Change Scoping Plan
SCS	Sustainable Communities Strategy
SEIR	The Ontario Plan 2050 Draft Supplemental Environmental Impact Report
sf	Square Feet
SF <sub>6</sub>	Sulfur Hexafluoride
SGC	Strategic Growth Council
SHGC	Solar Heat Gain Coefficient
SLPS	Short-Lived Climate Pollutant Strategy
SP	Service Population
SWCRB	State Water Resources Control Board
TDM	Transportation Demand Measures
Title 20	Appliance Energy Efficiency Standards
Title 24	California Building Code
U.N.	United Nations
U.S.	United States
UNFCCC	United Nations' Framework Convention on Climate Change
URBEMIS	Urban Emissions
UTR	Utility Tractors
VFP	Vehicle Fueling Positions
VMT	Vehicle Miles Traveled

WCI	Western Climate Initiative
WRI	World Resources Institute
ZE/NZE	Zero and Near-Zero Emissions
ZEV	Zero-Emissions Vehicles

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## EXECUTIVE SUMMARY

### ES.1 SUMMARY OF FINDINGS

The results of this *5355 East Airport Drive Greenhouse Gas Analysis* (GHGA) is summarized below based on the significance criteria in Section 4 of this report consistent with Appendix G of the *California Environmental Quality Act (CEQA) Guidelines (CEQA Guidelines)* (1). Table ES-1 shows the findings of significance for potential greenhouse gas (GHG) impacts under CEQA.

**TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS**

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
GHG Impact #1: Would the Project generate GHG emissions either directly or indirectly, that may have a significant impact on the environment?	4.7	<i>Less Than Significant</i>	<i>n/a</i>
GHG Impact #2: Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?	4.7	<i>Less Than Significant</i>	<i>n/a</i>

### ES.2 PROJECT REQUIREMENTS

The Project would be required to comply with regulations imposed by the State of California and the South Coast Air Quality Management District (SCAQMD) aimed at the reduction of air pollutant emissions. Those that are directly and indirectly applicable to the Project and that would assist in the reduction of GHG emissions include:

- Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32) (2).
- Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies (Senate Bill [SB] 375) (3).
- Pavley Fuel Efficiency Standards (AB 1493). Establishes fuel efficiency ratings for new vehicles (4).
- California Building Code (Title 24 California Code of Regulations [CCR]). Establishes energy efficiency requirements for new construction (5).
- Appliance Energy Efficiency Standards (Title 20 CCR). Establishes energy efficiency requirements for appliances (6).
- Low Carbon Fuel Standard (LCFS). Requires carbon content of fuel sold in California to be 10 percent (%) less by 2020 (7).
- California Water Conservation in Landscaping Act of 2006 (AB 1881). Requires local agencies to adopt the Department of Water Resources updated Water Efficient Landscape Ordinance or

equivalent to ensure efficient landscapes in new development and reduced water waste in existing landscapes (8).

- Statewide Retail Provider Emissions Performance Standards (SB 1368). Requires energy generators to achieve performance standards for GHG emissions (9).
- Renewable Portfolio Standards (SB 1078 – also referred to as RPS). Requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20% by 2010 and 33% by 2020 (10).
- California Global Warming Solutions Act of 2006 (SB 32). Requires the state to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15 (11).
- SCAQMD Rule 2305. The SCAQMD adopted Rule 2305, the Warehouse Indirect Source Rule, on May 7, 2021. Owners and operators associated with warehouses 100,000 square feet (sf) or larger are required to directly reduce nitrogen oxides (NO<sub>x</sub>) and particulate matter emissions, or to otherwise facilitate emission and exposure reductions of these pollutants in nearby communities.

Promulgated regulations that would affect the Project's emissions are accounted for in the Project's GHG calculations provided in this report. In particular, AB 1493, LCFS, and RPS, and therefore are accounted for in the Project's emission calculations.

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# **1 INTRODUCTION**

This report presents the results of the GHGA prepared by Urban Crossroads, Inc., for the proposed 5355 East Airport Drive (Project). The purpose of this GHGA is to evaluate Project-related construction and operational emissions and determine the level of GHG impacts as a result of constructing and operating the Project.

## **1.1 SITE LOCATION**

The proposed Project is located at 5355 East Airport Drive in the City of Ontario as shown on Exhibit 1-A. The Project is located approximately 2.7 miles east of the Ontario International Airport (ONT).

## **1.2 PROJECT DESCRIPTION**

The Project is proposed to consist of a single 270,337-square-foot (sf) industrial building. This analysis assumes up to 27,034-sf high-cube cold storage use (10% of the total industrial building sf) and 243,303-sf of warehouse use (90% of total industrial building). The site plan for the proposed Project is shown on Exhibit 1-B.

EXHIBIT 1-A: LOCATION MAP

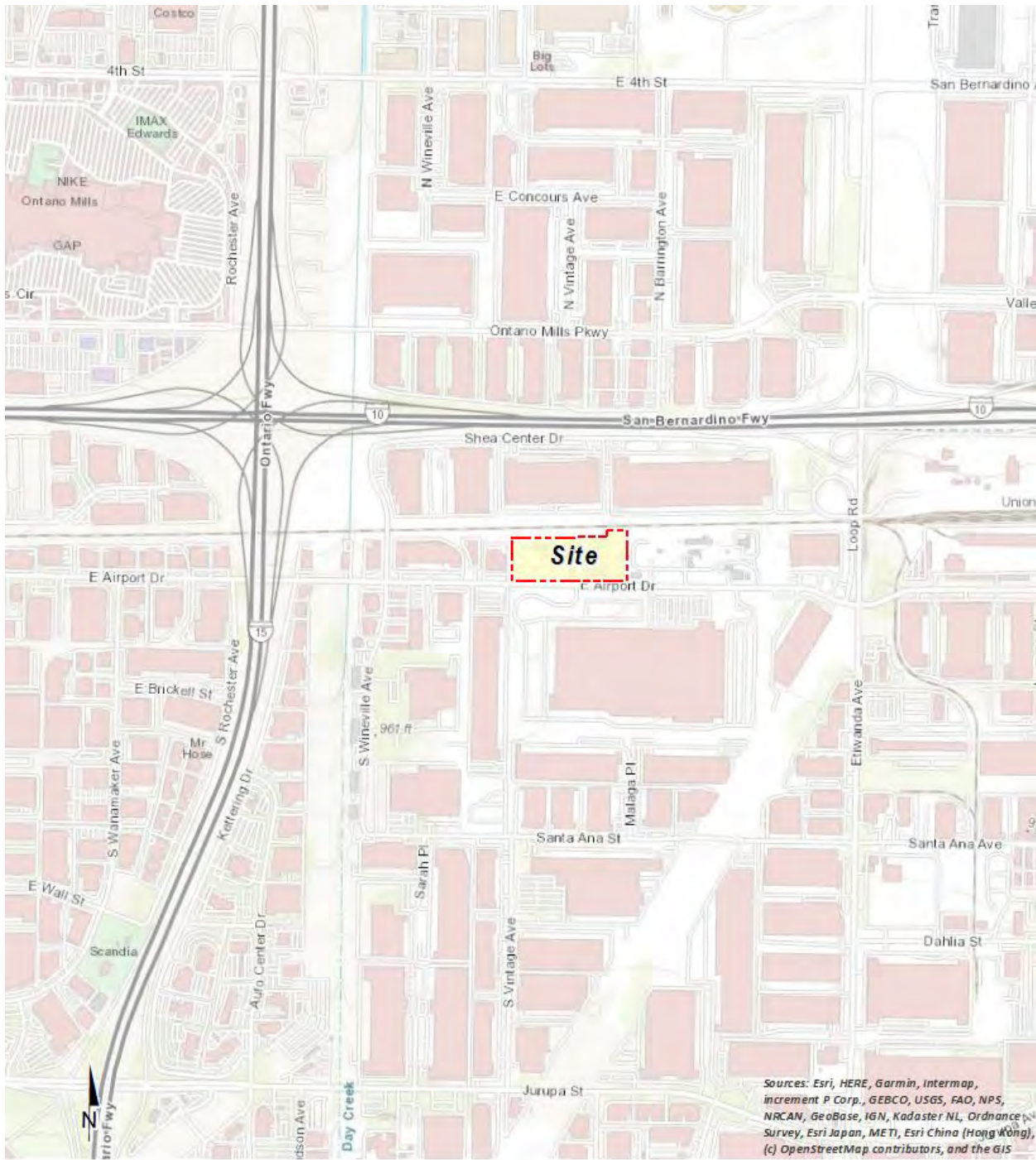
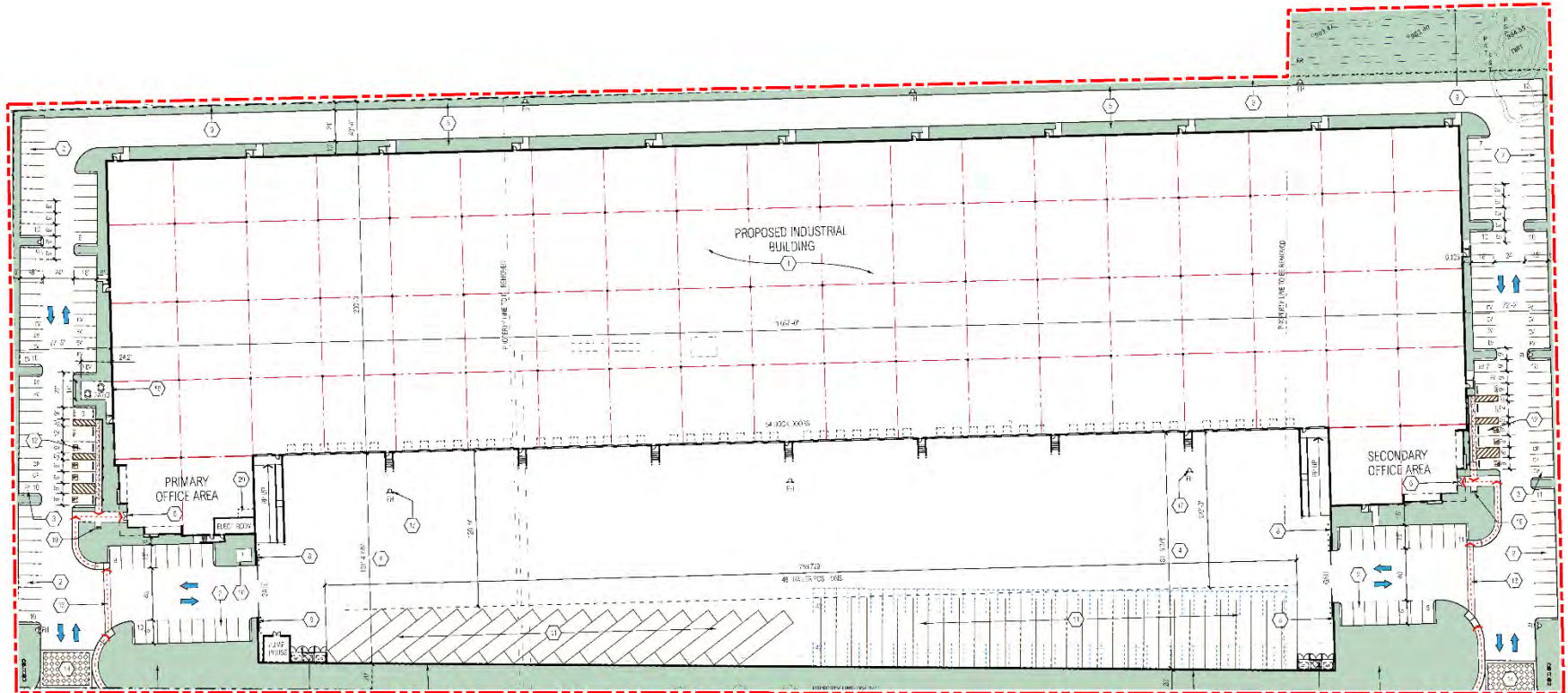




EXHIBIT 1-B: SITE PLAN



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## 2 CLIMATE CHANGE SETTING

### 2.1 INTRODUCTION TO GLOBAL CLIMATE CHANGE (GCC)

GCC is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. The majority of scientists believe that the climate shift taking place since the Industrial Revolution is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of GHGs in the earth's atmosphere, including carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and fluorinated gases. The majority of scientists believe that this increased rate of climate change is the result of GHGs resulting from human activity and industrialization over the past 200 years.

An individual project like the Project evaluated in this GHGA cannot generate enough GHG emissions to affect a discernible change in global climate. However, the Project may participate in the potential for GCC by its incremental contribution of GHGs combined with the cumulative increase of all other sources of GHGs, which when taken together constitute potential influences on GCC. Because these changes may have serious environmental consequences, Section 4.0 will evaluate the potential for the Project to have a significant effect upon the environment as a result of its potential contribution to the greenhouse effect.

### 2.2 GLOBAL CLIMATE CHANGE DEFINED

GCC refers to the change in average meteorological conditions on the earth with respect to temperature, wind patterns, precipitation, and storms. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, CO<sub>2</sub>, N<sub>2</sub>O, CH<sub>4</sub>, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>). These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the earth's atmosphere, but prevent radioactive heat from escaping, thus warming the earth's atmosphere. GCC can occur naturally as it has in the past with the previous ice ages.

Gases that trap heat in the atmosphere are often referred to as GHGs. GHGs are released into the atmosphere by both natural and anthropogenic activity. Without the natural GHG effect, the earth's average temperature would be approximately 61 degrees Fahrenheit (°F) cooler than it is currently. The cumulative accumulation of these gases in the earth's atmosphere is considered to be the cause for the observed increase in the earth's temperature.

### 2.3 GHGs

#### 2.3.1 GHGs AND HEALTH EFFECTS

GHGs trap heat in the atmosphere, creating a GHG effect that results in global warming and climate change. Many gases demonstrate these properties and as discussed in Table 2-1. For the purposes of this analysis, emissions of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O were evaluated (see Table 4-1 later in this report) because these gases are the primary contributors to GCC from development projects. Although there are other substances such as fluorinated gases that also contribute to GCC, these

fluorinated gases were not evaluated as their sources are not well-defined and do not contain accepted emissions factors or methodology to accurately calculate these gases.

**TABLE 2-1: GHGS**

GHGs	Description	Sources	Health Effects
Water	<p>Water is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. Climate feedback is an indirect, or secondary, change, either positive or negative, that occurs within the climate system in response to a forcing mechanism. The feedback loop in which water is involved is critically important to projecting future climate change.</p> <p>As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to ‘hold’ more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a “positive feedback loop.” The extent to which this positive feedback loop would continue is unknown as there are also dynamics that hold the positive</p>	<p>The main source of water vapor is evaporation from the oceans (approximately 85%). Other sources include evaporation from other water bodies, sublimation (change from solid to gas) from sea ice and snow, and transpiration from plant leaves.</p>	<p>There are no known direct health effects related to water vapor at this time. It should be noted however that when some pollutants react with water vapor, the reaction forms a transport mechanism for some of these pollutants to enter the human body through water vapor.</p>

GHGs	Description	Sources	Health Effects
	<p>feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it would eventually condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the earth's surface and heat it up) (12).</p>		
<p>CO<sub>2</sub></p>	<p>CO<sub>2</sub> is an odorless and colorless GHG. Since the industrial revolution began in the mid-1700s, the sort of human activity that increases GHG emissions has increased dramatically in scale and distribution. Data from the past 50 years suggests a corollary increase in levels and concentrations. As an example, prior to the industrial revolution, CO<sub>2</sub> concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30%. Left unchecked, the concentration of CO<sub>2</sub> in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources (13).</p>	<p>CO<sub>2</sub> is emitted from natural and manmade sources. Natural sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources include: the burning of coal, oil, natural gas, and wood. CO<sub>2</sub> is naturally removed from the air by photosynthesis, dissolution into ocean water, transfer to soils and ice caps, and chemical weathering of carbonate rocks (14).</p>	<p>Outdoor levels of CO<sub>2</sub> are not high enough to result in negative health effects.</p> <p>According to the National Institute for Occupational Safety and Health (NIOSH) high concentrations of CO<sub>2</sub> can result in health effects such as: headaches, dizziness, restlessness, difficulty breathing, sweating, increased heart rate, increased cardiac output, increased blood pressure, coma, asphyxia, and/or convulsions. It should be noted that current concentrations of CO<sub>2</sub> in the earth's atmosphere are estimated to be approximately 370 ppm, the actual reference exposure level (level at which adverse health effects typically occur) is at exposure levels of 5,000 ppm averaged over 10 hours in a 40-hour workweek and short-term reference exposure levels of 30,000 ppm averaged over a 15-minute period (15).</p>

GHGs	Description	Sources	Health Effects
CH <sub>4</sub>	CH <sub>4</sub> is an extremely effective absorber of radiation, although its atmospheric concentration is less than CO <sub>2</sub> and its lifetime in the atmosphere is brief (10-12 years), compared to other GHGs.	CH <sub>4</sub> in the atmosphere is generated by many different sources, such as fossil fuel production, transport and use, from the decay of organic matter in wetlands, and as a byproduct of digestion by ruminant animals such as cows. Determining which specific sources are responsible for variations in annual increases of CH <sub>4</sub> is complex, but scientists estimate that fossil fuel production and use contributes roughly 30% of the total CH <sub>4</sub> emissions. These industrial sources of CH <sub>4</sub> are relatively simple to pinpoint and control using current technology (16).	CH <sub>4</sub> is extremely reactive with oxidizers, halogens, and other halogen-containing compounds. Exposure to elevated levels of CH <sub>4</sub> can cause asphyxiation, loss of consciousness, headache and dizziness, nausea and vomiting, weakness, loss of coordination, and an increased breathing rate.
N <sub>2</sub> O	N <sub>2</sub> O, also known as laughing gas, is a colorless GHG. Concentrations of N <sub>2</sub> O also began to rise at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb).	N <sub>2</sub> O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions)	N <sub>2</sub> O can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses, it is considered harmless. However, in some cases, heavy and extended use can cause Olney's Lesions (brain damage) (17).

GHGs	Description	Sources	Health Effects
		<p>also contribute to its atmospheric load. It is used as an aerosol spray propellant, i.e., in whipped cream bottles. It is also used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars. N<sub>2</sub>O can be transported into the stratosphere, be deposited on the earth's surface, and be converted to other compounds by chemical reaction (17).</p>	
Chlorofluorocarbons (CFCs)	<p>CFCs are gases formed synthetically by replacing all hydrogen atoms in CH<sub>4</sub> or ethane (C<sub>2</sub>H<sub>6</sub>) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble and chemically unreactive in the troposphere (the level of air at the earth's surface).</p>	<p>CFCs have no natural source. They are found in aerosol sprays, blowing agents for foams and packing materials, as solvents, and as refrigerants. (18).</p>	<p>In confined indoor locations, working with CFC-113 or other CFCs is thought to result in death by cardiac arrhythmia (heart frequency too high or too low) or asphyxiation.</p>
HFCs	<p>HFCs are synthetic, man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential (GWP). The HFCs with the largest measured atmospheric abundances are (in order), Fluoroform (HFC-23), 1,1,1,2-tetrafluoroethane (HFC-134a), and 1,1-difluoroethane (HFC-152a). Prior to 1990, the only significant emissions were of HFC-23. HCF-134a emissions are increasing due to its use as a refrigerant.</p>	<p>HFCs are manmade for applications such as automobile air conditioners and refrigerants.</p>	<p>No health effects are known to result from exposure to HFCs.</p>

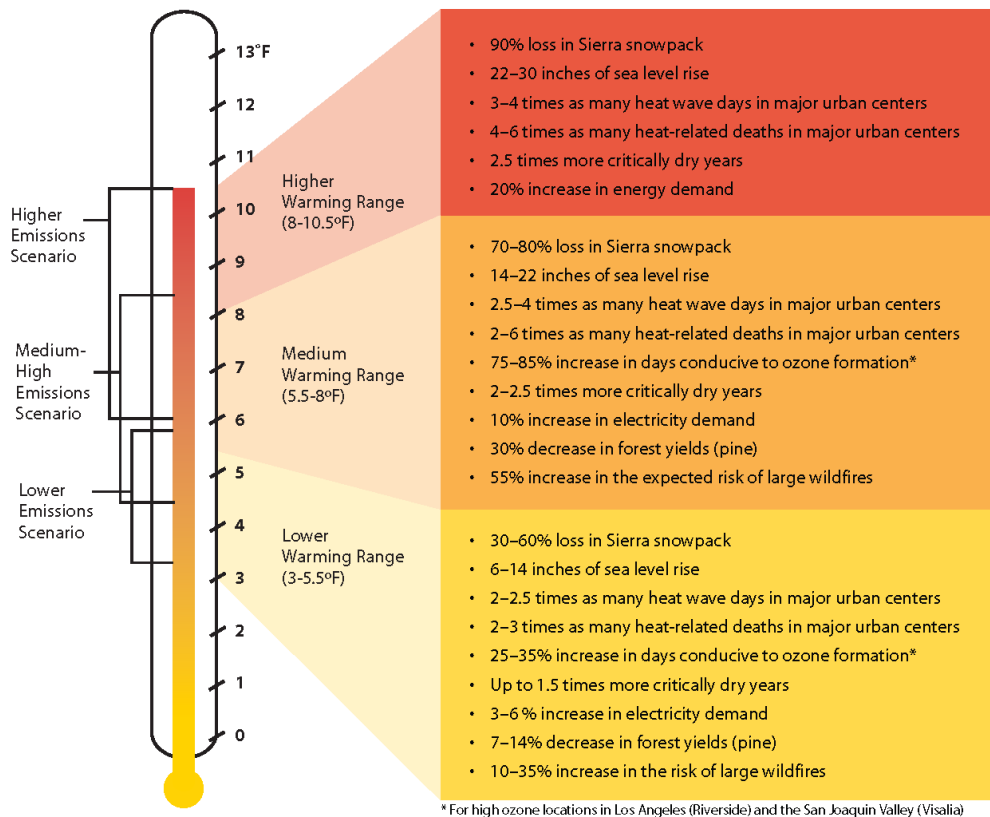
GHGs	Description	Sources	Health Effects
PFCs	<p>PFCs have stable molecular structures and do not break down through chemical processes in the lower atmosphere. High-energy ultraviolet rays, which occur about 60 kilometers above earth's surface, are able to destroy the compounds. Because of this, PFCs have exceptionally long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF<sub>4</sub>) and hexafluoroethane (C<sub>2</sub>F<sub>6</sub>). The EPA estimates that concentrations of CF<sub>4</sub> in the atmosphere are over 70 parts per trillion (ppt).</p>	<p>The two main sources of PFCs are primary aluminum production and semiconductor manufacture.</p>	<p>No health effects are known to result from exposure to PFCs.</p>
SF <sub>6</sub>	<p>SF<sub>6</sub> is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated (23,900) (19). The EPA indicates that concentrations in the 1990s were about 4 ppt.</p>	<p>SF<sub>6</sub> is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.</p>	<p>In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing.</p>



GHGs	Description	Sources	Health Effects
Nitrogen Trifluoride (NF <sub>3</sub> )	NF <sub>3</sub> is a colorless gas with a distinctly moldy odor. The World Resources Institute (WRI) indicates that NF <sub>3</sub> has a 100-year GWP of 17,200 (20).	NF <sub>3</sub> is used in industrial processes and is produced in the manufacturing of semiconductors, Liquid Crystal Display (LCD) panels, types of solar panels, and chemical lasers.	Long-term or repeated exposure may affect the liver and kidneys and may cause fluorosis (21).

The potential health effects related directly to the emissions of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O as they relate to development projects such as the Project are still being debated in the scientific community. Their cumulative effects to GCC have the potential to cause adverse effects to human health. Increases in Earth’s ambient temperatures would result in more intense heat waves, causing more heat-related deaths. Scientists also purport those higher ambient temperatures would increase disease survival rates and result in more widespread disease. Climate change would likely cause shifts in weather patterns, potentially resulting in devastating droughts and food shortages in some areas (22). Exhibit 2-A presents the potential impacts of global warming (23).

**EXHIBIT 2-A: SUMMARY OF PROJECTED GLOBAL WARMING IMPACT, 2070-2099 (AS COMPARED WITH 1961-1990)**



Source: Barbara H. Allen-Diaz. "Climate change affects us all." *University of California, Agriculture and Natural Resources*, 2009.

## 2.4 GLOBAL WARMING POTENTIAL

GHGs have varying GWP values. GWP of a GHG indicates the amount of warming a gas cause over a given period of time and represents the potential of a gas to trap heat in the atmosphere. CO<sub>2</sub> is utilized as the reference gas for GWP, and thus has a GWP of 1. CO<sub>2</sub> equivalent (CO<sub>2</sub>e) is a term used for describing the difference GHGs in a common unit. CO<sub>2</sub>e signifies the amount of CO<sub>2</sub> which would have the equivalent GWP.

The atmospheric lifetime and GWP of selected GHGs are summarized at Table 2-2. As shown in the table below, GWP for the 2<sup>nd</sup> Assessment Report, the Intergovernmental Panel on Climate Change (IPCC)'s scientific and socio-economic assessment on climate change, range from 1 for CO<sub>2</sub> to 23,900 for SF<sub>6</sub> and GWP for the IPCC's 5<sup>th</sup> Assessment Report range from 1 for CO<sub>2</sub> to 23,500 for SF<sub>6</sub> (24).

**TABLE 2-2: GWP AND ATMOSPHERIC LIFETIME OF SELECT GHGS**

Gas	Atmospheric Lifetime (years)	GWP (100-year time horizon)	
		2 <sup>nd</sup> Assessment Report	5 <sup>th</sup> Assessment Report
CO <sub>2</sub>	See*	1	1
CH <sub>4</sub>	12 .4	21	28
N <sub>2</sub> O	121	310	265
HFC-23	222	11,700	12,400
HFC-134a	13.4	1,300	1,300
HFC-152a	1.5	140	138
SF <sub>6</sub>	3,200	23,900	23,500

\*As per Appendix 8.A. of IPCC's 5th Assessment Report, no single lifetime can be given.

Source: Table 2.14 of the IPCC Fourth Assessment Report, 2007

## 2.5 GHG EMISSIONS INVENTORIES

### 2.5.1 GLOBAL

Worldwide anthropogenic GHG emissions are tracked by the IPCC for industrialized nations (referred to as Annex I) and developing nations (referred to as Non-Annex I). Human GHG emissions data for Annex I nations are available through 2018. Based on the latest available data, the sum of these emissions totaled approximately 28,768,440 gigagram (Gg) CO<sub>2</sub>e<sup>1</sup> (25) (26) as summarized on Table 2-3.

<sup>1</sup> The global emissions are the sum of Annex I and non-Annex I countries, without counting Land-Use, Land-Use Change and Forestry (LULUCF). For countries without 2018 data, the United Nations' Framework Convention on Climate Change (UNFCCC) data for the most recent year were used U.N. Framework Convention on Climate Change, "Annex I Parties – GHG total without LULUCF," The most recent GHG emissions for China and India are from 2014 and 2010, respectively.

## 2.5.2 UNITED STATES

As noted in Table 2-3, the United States, as a single country, was the number two producer of GHG emissions in 2018.

**TABLE 2-3: TOP GHG PRODUCING COUNTRIES AND THE EUROPEAN UNION <sup>2</sup>**

Emitting Countries	GHG Emissions (Gg CO <sub>2</sub> e)
China	12,300,200
United States	6,676,650
European Union (28-member countries)	4,232,274
Russian Federation	2,220,123
India	2,100,850
Japan	1,238,343
<b>Total</b>	<b>28,768,440</b>

## 2.5.3 STATE OF CALIFORNIA

California has significantly slowed the rate of growth of GHG emissions due to the implementation of energy efficiency programs as well as adoption of strict emission controls but is still a substantial contributor to the United States (U.S.) emissions inventory total (27). The California Air Resource Board (CARB) compiles GHG inventories for the State of California. Based upon the 2021 GHG inventory data (i.e., the latest year for which data are available) for the 2000-2019 GHG emissions period, California emitted an average 418.2 million metric tons of CO<sub>2</sub>e per year (MMTCO<sub>2</sub>e/yr) or 418,200 Gg CO<sub>2</sub>e (6.26% of the total United States GHG emissions) (28).

## 2.6 EFFECTS OF CLIMATE CHANGE IN CALIFORNIA

### 2.6.1 PUBLIC HEALTH

Higher temperatures may increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation could increase from 25 to 35% under the lower warming range to 75 to 85% under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances, depending on wind conditions. Based on *Our Changing Climate Assessing the Risks to California by the California Climate Change Center*, large wildfires could become up to 55% more frequent if GHG emissions are not significantly reduced (29).

In addition, under the higher warming range scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a

<sup>2</sup> Used <http://unfccc.int> data for Annex I countries. Consulted the CAIT Climate Data Explorer in <https://www.climatewatchdata.org> site to reference Non-Annex I countries of China and India.

significant increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures could increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

### **2.6.2 WATER RESOURCES**

A vast network of man-made reservoirs and aqueducts captures and transports water throughout the state from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages.

If temperatures continue to increase, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90%. Under the lower warming range scenario, snowpack losses could be only half as large as those possible if temperatures were to rise to the higher warming range. How much snowpack could be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snowpack could pose challenges to water managers and hamper hydropower generation. It could also adversely affect winter tourism. Under the lower warming range, the ski season at lower elevations could be reduced by as much as a month. If temperatures reach the higher warming range and precipitation declines, there might be many years with insufficient snow for skiing and snowboarding.

The State's water supplies are also at risk from rising sea levels. An influx of saltwater could degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta – a major fresh water supply.

### **2.6.3 AGRICULTURE**

Increased temperatures could cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. First, California farmers could possibly lose as much as 25% of the water supply needed. Although higher CO<sub>2</sub> levels can stimulate plant production and increase plant water-use efficiency, California's farmers could face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development could change, as could the intensity and frequency of pest and disease outbreaks. Rising temperatures could aggravate ozone pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures could worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits, and nuts.

In addition, continued GCC could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion could occur in many species while range contractions may be less likely in rapidly evolving species with significant populations already established. Should range contractions occur, new or different weed species could fill the emerging gaps. Continued GCC could alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

#### **2.6.4 FORESTS AND LANDSCAPES**

GCC has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55%, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks would not be uniform throughout the state. In contrast, wildfires in northern California could increase by up to 90% due to decreased precipitation.

Moreover, continued GCC has the potential to alter natural ecosystems and biological diversity within the state. For example, alpine and subalpine ecosystems could decline by as much as 60 to 80% by the end of the century as a result of increasing temperatures. The productivity of the state's forests has the potential to decrease as a result of GCC.

#### **2.6.5 RISING SEA LEVELS**

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten the state's coastal regions. Under the higher warming range scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate low-lying coastal areas with saltwater, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. Under the lower warming range scenario, sea level could rise 12-14 inches.

## **2.7 REGULATORY SETTING**

### **2.7.1 INTERNATIONAL**

Climate change is a global issue involving GHG emissions from all around the world; therefore, countries such as the ones discussed below have made an effort to reduce GHGs.

#### **IPCC**

In 1988, the United Nations (U.N.) and the World Meteorological Organization established the IPCC to assess the scientific, technical, and socioeconomic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation.

## **UNITED NATION’S FRAMEWORK CONVENTION ON CLIMATE CHANGE (UNFCCC)**

On March 21, 1994, the U.S. joined a number of countries around the world in signing the Convention. Under the UNFCCC, governments gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

### **INTERNATIONAL CLIMATE CHANGE TREATIES**

The Kyoto Protocol is an international agreement linked to the UNFCCC. The major feature of the Kyoto Protocol is that it sets binding targets for 37 industrialized countries and the European community for reducing GHG emissions at an average of 5% against 1990 levels over the five-year period 2008–2012. The Convention (as discussed above) encouraged industrialized countries to stabilize emissions; however, the Protocol commits them to do so. Developed countries have contributed more emissions over the last 150 years; therefore, the Protocol places a heavier burden on developed nations under the principle of “common but differentiated responsibilities.”

In 2001, President George W. Bush indicated that he would not submit the treaty to the U.S. Senate for ratification, which effectively ended American involvement in the Kyoto Protocol. In December 2009, international leaders met in Copenhagen to address the future of international climate change commitments post-Kyoto. No binding agreement was reached in Copenhagen; however, the UN Climate Change Committee identified the long-term goal of limiting the maximum global average temperature increase to no more than 2 degrees Celsius (°C) above pre-industrial levels, subject to a review in 2015. The Committee held additional meetings in Durban, South Africa in November 2011; Doha, Qatar in November 2012; and Warsaw, Poland in November 2013. The meetings gradually gained consensus among participants on individual climate change issues.

On September 23, 2014, more than 100 Heads of State and Government and leaders from the private sector and civil society met at the Climate Summit in New York hosted by the U.N. At the Summit, heads of government, business and civil society announced actions in areas that would have the greatest impact on reducing emissions, including climate finance, energy, transport, industry, agriculture, cities, forests, and building resilience.

Parties to the UNFCCC reached a landmark agreement on December 12, 2015, in Paris, charting a fundamentally new course in the two-decade-old global climate effort. Culminating a four-year negotiating round, the new treaty ends the strict differentiation between developed and developing countries that characterized earlier efforts, replacing it with a common framework that commits all countries to put forward their best efforts and to strengthen them in the years ahead. This includes, for the first time, requirements that all parties report regularly on their emissions and implementation efforts and undergo international review.

The agreement and a companion decision by parties were the key outcomes of the conference, known as the 21<sup>st</sup> session of the UNFCCC Conference of the Parties (COP) 21. Together, the Paris Agreement and the accompanying COP decision:

- Reaffirm the goal of limiting global temperature increase well below 2°C, while urging efforts to limit the increase to 1.5 degrees;
- Establish binding commitments by all parties to make “nationally determined contributions” (NDCs), and to pursue domestic measures aimed at achieving them;
- Commit all countries to report regularly on their emissions and “progress made in implementing and achieving” their NDCs, and to undergo international review;
- Commit all countries to submit new NDCs every five years, with the clear expectation that they would “represent a progression” beyond previous ones;
- Reaffirm the binding obligations of developed countries under the UNFCCC to support the efforts of developing countries, while for the first time encouraging voluntary contributions by developing countries too;
- Extend the current goal of mobilizing \$100 billion a year in support by 2020 through 2025, with a new, higher goal to be set for the period after 2025;
- Extend a mechanism to address “loss and damage” resulting from climate change, which explicitly would not “involve or provide a basis for any liability or compensation;”
- Require parties engaging in international emissions trading to avoid “double counting;” and
- Call for a new mechanism, similar to the Clean Development Mechanism under the Kyoto Protocol, enabling emission reductions in one country to be counted toward another country’s NDC (C2ES 2015a) (30).

Following President Biden’s day one executive order, the United States officially rejoined the landmark Paris Agreement on February 19, 2021, positioning the country to once again be part of the global climate solution. Meanwhile, city, state, business, and civic leaders across the country and around the world have been ramping up efforts to drive the clean energy advances needed to meet the goals of the agreement and put the brakes on dangerous climate change.

## 2.7.2 NATIONAL

Prior to the last decade, there have been no concrete federal regulations of GHGs or major planning for climate change adaptation. The following are actions regarding the federal government, GHGs, and fuel efficiency.

### GHG ENDANGERMENT

In *Massachusetts v. Environmental Protection Agency* 549 U.S. 497 (2007), decided on April 2, 2007, the United States Supreme Court (Supreme Court) found that four GHGs, including CO<sub>2</sub>, are air pollutants subject to regulation under Section 202(a)(1) of the Clean Air Act (CAA). The Supreme Court held that the EPA Administrator must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned

decision. On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under section 202(a) of the CAA:

- **Endangerment Finding:** The Administrator finds that the current and projected concentrations of the six key well-mixed GHGs— CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, and SF<sub>6</sub>—in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The Administrator finds that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution, which threatens public health and welfare.

These findings do not impose requirements on industry or other entities. However, this was a prerequisite for implementing GHG emissions standards for vehicles, as discussed in the section “Clean Vehicles” below. After a lengthy legal challenge, the Supreme Court declined to review an Appeals Court ruling that upheld the EPA Administrator’s findings (31).

## **CLEAN VEHICLES**

Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the U.S. On April 1, 2010, the EPA, and the Department of Transportation’s National Highway Traffic Safety Administration (NHTSA) announced a joint final rule establishing a national program that would reduce GHG emissions and improve fuel economy for new cars and trucks sold in the U.S.

The first phase of the national program applies to passenger cars, light-duty trucks, and medium-duty (MD) passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of CO<sub>2</sub> per mile, equivalent to 35.5 miles per gallon (mpg) if the automobile industry were to meet this CO<sub>2</sub> level solely through fuel economy improvements. Together, these standards would cut CO<sub>2</sub> emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). The EPA and the NHTSA issued final rules on a second-phase joint rulemaking establishing national standards for light-duty vehicles for model years 2017 through 2025 in August 2012. The new standards for model years 2017 through 2025 apply to passenger cars, light-duty trucks, and MD passenger vehicles. The final standards are projected to result in an average industry fleetwide level of 163 grams/mile of CO<sub>2</sub> in model year 2025, which is equivalent to 54.5 mpg if achieved exclusively through fuel economy improvements.

The EPA and the U.S. Department of Transportation issued final rules for the first national standards to reduce GHG emissions and improve fuel efficiency of heavy-duty trucks (HDT) and buses on September 15, 2011, effective November 14, 2011. For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20% reduction in CO<sub>2</sub> emissions and fuel consumption by the 2018 model year. For HDT and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10% reduction for gasoline vehicles and a 15% reduction for diesel vehicles by the 2018 model year (12 and 17% respectively if



accounting for air conditioning leakage). Lastly, for vocational vehicles, the engine and vehicle standards would achieve up to a 10% reduction in fuel consumption and CO<sub>2</sub> emissions from the 2014 to 2018 model years.

On April 2, 2018, the EPA signed the Mid-term Evaluation Final Determination, which declared that the MY 2022-2025 GHG standards are not appropriate and should be revised (32). This Final Determination serves to initiate a notice to further consider appropriate standards for MY 2022-2025 light-duty vehicles. On August 2, 2018, the NHTSA in conjunction with the EPA, released a notice of proposed rulemaking, the *Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks* (SAFE Vehicles Rule). The SAFE Vehicles Rule was proposed to amend existing Corporate Average Fuel Economy (CAFE) and tailpipe CO<sub>2</sub> standards for passenger cars and light trucks and to establish new standards covering model years 2021 through 2026. As of March 31, 2020, the NHTSA and EPA finalized the SAFE Vehicle Rule which increased stringency of CAFE and CO<sub>2</sub> emissions standards by 1.5% each year through model year 2026 (33). On December 21, 2021, after reviewing all the public comments submitted on NHTSA's April 2021 Notice of Proposed Rulemaking, NHTSA finalizes the CAFE Preemption rulemaking to withdraw its portions of the so-called SAFE I Rule. The final rule concludes that the SAFE I Rule overstepped the agency's legal authority and established overly broad prohibitions that did not account for a variety of important state and local interests. The final rule ensures that the SAFE I Rule will no longer form an improper barrier to states exploring creative solutions to address their local communities' environmental and public health challenges (34).

On March 31, 2022, NHTSA finalized CAFE standards for MY 2024-2026. The standards for passenger cars and light trucks for MYs 2024-2025 were increased at a rate of 8% per year and then increased at a rate of 10% per year for MY 2026 vehicles. NHTSA currently projects that the revised standards would require an industry fleet-wide average of roughly 49 mpg in MY 2026 and would reduce average fuel outlays over the lifetimes of affected vehicles that provide consumers hundreds of dollars in net savings. These standards are directly responsive to the agency's statutory mandate to improve energy conservation and reduce the nation's energy dependence on foreign sources (35).

#### **MANDATORY REPORTING OF GHGs**

The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory GHG reporting requirements. On September 22, 2009, the EPA issued the Final Mandatory Reporting of GHGs Rule, which became effective January 1, 2010. The rule requires reporting of GHG emissions from large sources and suppliers in the U.S. and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons per year (MT/yr) or more of GHG emissions are required to submit annual reports to the EPA.

#### **NEW SOURCE REVIEW**

The EPA issued a final rule on May 13, 2010, that establishes thresholds for GHGs that define when permits under the New Source Review Prevention of Significant Deterioration and Title V

Operating Permit programs are required for new and existing industrial facilities. This final rule “tailors” the requirements of these CAA permitting programs to limit which facilities would be required to obtain Prevention of Significant Deterioration and Title V permits. In the preamble to the revisions to the Federal Code of Regulations, the EPA states:

*“This rulemaking is necessary because without it the Prevention of Significant Deterioration and Title V requirements would apply, as of January 2, 2011, at the 100 or 250 tons per year levels provided under the CAA, greatly increasing the number of required permits, imposing undue costs on small sources, overwhelming the resources of permitting authorities, and severely impairing the functioning of the programs. EPA is relieving these resource burdens by phasing in the applicability of these programs to GHG sources, starting with the largest GHG emitters. This rule establishes two initial steps of the phase-in. The rule also commits the agency to take certain actions on future steps addressing smaller sources but excludes certain smaller sources from Prevention of Significant Deterioration and Title V permitting for GHG emissions until at least April 30, 2016.”*

The EPA estimates that facilities responsible for nearly 70% of the national GHG emissions from stationary sources would be subject to permitting requirements under this rule. This includes the nation’s largest GHG emitters—power plants, refineries, and cement production facilities.

#### **STANDARDS OF PERFORMANCE FOR GHG EMISSIONS FOR NEW STATIONARY SOURCES: ELECTRIC UTILITY GENERATING UNITS**

As required by a settlement agreement, the EPA proposed new performance standards for emissions of CO<sub>2</sub> for new, affected, fossil fuel-fired electric utility generating units on March 27, 2012. New sources greater than 25 megawatts (MW) would be required to meet an output-based standard of 1,000 pounds (lbs) of CO<sub>2</sub> per MW-hour (MWh), based on the performance of widely used natural gas combined cycle technology. It should be noted that on February 9, 2016, the Supreme Court issued a stay of this regulation pending litigation. Additionally, the current EPA Administrator has also signed a measure to repeal the Clean Power Plan, including the CO<sub>2</sub> standards. The Clean Power Plan was officially repealed on June 19, 2019, when the EPA issued the final Affordable Clean Energy rule (ACE). Under ACE, new state-specific emission guidelines were established that provided existing coal-fired electric utility generating units with achievable standards.

On January 19, 2021, the D.C. Circuit Court of Appeals ruled that the EPA’s ACE Rule for GHG emissions from power plants rested on an erroneous interpretation of the CAA that barred EPA from considering measures beyond those that apply at and to an individual source. The court therefore vacated and remanded the ACE Rule and adopted a replacement rule which regulates CO<sub>2</sub> emissions from existing power plants, potentially again considering generation shifting and other measures to more aggressively target power sector emissions.

## **CAP-AND-TRADE**

Cap-and-trade refers to a policy tool where emissions are limited to a certain amount and can be traded or provides flexibility on how the emitter can comply. Successful examples in the U.S. include the Acid Rain Program and the N<sub>2</sub>O Budget Trading Program and Clean Air Interstate Rule in the northeast. There is no federal GHG cap-and-trade program currently; however, some states have joined to create initiatives to provide a mechanism for cap-and-trade.

The Regional GHG Initiative is an effort to reduce GHGs among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. Each state caps CO<sub>2</sub> emissions from power plants, auctions CO<sub>2</sub> emission allowances, and invests the proceeds in strategic energy programs that further reduce emissions, save consumers money, create jobs, and build a clean energy economy. The Initiative began in 2008 and in 2020 has retained all participating states.

The Western Climate Initiative (WCI) partner jurisdictions have developed a comprehensive initiative to reduce regional GHG emissions to 15% below 2005 levels by 2020. The partners were originally California, British Columbia, Manitoba, Ontario, and Quebec. However, Manitoba and Ontario are not currently participating. California linked with Quebec's cap-and-trade system January 1, 2014, and joint offset auctions took place in 2015. While the WCI has yet to publish whether it has successfully reached the 2020 emissions goal initiative set in 2007, SB 32 requires that California, a major partner in the WCI, adopt the goal of reducing statewide GHG emissions to 40% below the 1990 level by 2030.

## **SMARTWAY PROGRAM**

The SmartWay Program is a public-private initiative between the EPA, large and small trucking companies, rail carriers, logistics companies, commercial manufacturers, retailers, and other federal and state agencies. Its purpose is to improve fuel efficiency and the environmental performance (reduction of both GHG emissions and air pollution) of the goods movement supply chains. SmartWay is comprised of four components (36):

1. SmartWay Transport Partnership: A partnership in which freight carriers and shippers commit to benchmark operations, track fuel consumption, and improve performance annually.
2. SmartWay Technology Program: A testing, verification, and designation program to help freight companies identify equipment, technologies, and strategies that save fuel and lower emissions.
3. SmartWay Vehicles: A program that ranks light-duty cars and small trucks and identifies superior environmental performers with the SmartWay logo.
4. SmartWay International Interests: Guidance and resources for countries seeking to develop freight sustainability programs modeled after SmartWay.

SmartWay effectively refers to requirements geared towards reducing fuel consumption. Most large trucking fleets driving newer vehicles are compliant with SmartWay design requirements. Moreover, over time, all HDTs would have to comply with the CARB GHG Regulation that is designed with the SmartWay Program in mind, to reduce GHG emissions by making them more fuel-efficient. For instance, in 2015, 53 foot or longer dry vans or refrigerated trailers equipped

with a combination of SmartWay-verified low-rolling resistance tires and SmartWay-verified aerodynamic devices would obtain a total of 10% or more fuel savings over traditional trailers.

Through the SmartWay Technology Program, the EPA has evaluated the fuel saving benefits of various devices through grants, cooperative agreements, emissions, and fuel economy testing, demonstration projects and technical literature review. As a result, the EPA has determined the following types of technologies provide fuel saving and/or emission reducing benefits when used properly in their designed applications, and has verified certain products:

- Idle reduction technologies – less idling of the engine when it is not needed would reduce fuel consumption.
- Aerodynamic technologies minimize drag and improve airflow over the entire tractor-trailer vehicle. Aerodynamic technologies include gap fairings that reduce turbulence between the tractor and trailer, side skirts that minimize wind under the trailer, and rear fairings that reduce turbulence and pressure drop at the rear of the trailer.
- Low rolling resistance tires can roll longer without slowing down, thereby reducing the amount of fuel used. Rolling resistance (or rolling friction or rolling drag) is the force resisting the motion when a tire rolls on a surface. The wheel would eventually slow down because of this resistance.
- Retrofit technologies include things such as diesel particulate filters, emissions upgrades (to a higher tier), etc., which would reduce emissions.
- Federal excise tax exemptions.

## **EXECUTIVE ORDER 13990**

On January 20, 2021, Federal agencies were directed to immediately review, and take action to address, Federal regulations promulgated and other actions taken during the last 4 years that conflict with national objectives to improve public health and the environment; ensure access to clean air and water; limit exposure to dangerous chemicals and pesticides; hold polluters accountable, including those who disproportionately harm communities of color and low-income communities; reduce GHG emissions; bolster resilience to the impacts of climate change; restore and expand our national treasures and monuments; and prioritize both environmental justice and employment.

### **2.7.3 CALIFORNIA**

#### **2.7.3.1 LEGISLATIVE ACTIONS TO REDUCE GHGs**

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation such as the landmark AB 32 was specifically enacted to address GHG emissions. Other legislation such as Title 24 and Title 20 energy standards were originally adopted for other purposes such as energy and water conservation, but also provide GHG reductions. This section describes the major provisions of the legislation.

**AB 1881**

The Water Conservation in Landscaping Act of 2006 requires local agencies to adopt the updated DWR model ordinance or equivalent. AB 1881 also requires the CEC to consult with the DWR to adopt, by regulation, performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.

**SB 1368**

California SB 1368 adds Sections 8340 and 8341 to the Public Utilities Code (effective January 1, 2007) with the intent “to prevent long-term investments in power plants with GHG emissions in excess of those produced by a combined-cycle natural gas power plant” with the aim of “reducing emissions of GHGs from the state’s electricity consumption, not just the state’s electricity production.” SB 1368 provides a mechanism for reducing the GHG emissions of electricity providers, both in-state and out-of-state, thereby assisting CARB in meeting its mandate under AB 32, the Global Warming Solutions Act of 2006.

**AB 32**

The California State Legislature enacted AB 32, which required that GHGs emitted in California be reduced to 1990 levels by the year 2020 (this goal has been met<sup>3</sup>). GHGs as defined under AB 32 include CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, and SF<sub>6</sub>. Since AB 32 was enacted, a seventh chemical, NF<sub>3</sub>, has also been added to the list of GHGs. CARB is the state agency charged with monitoring and regulating sources of GHGs. Pursuant to AB 32, CARB adopted regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 states the following:

*“Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.”*

**SB 375**

On September 30, 2008, SB 375 was signed by Governor Schwarzenegger. According to SB 375, the transportation sector is the largest contributor of GHG emissions, which emits over 40% of the total GHG emissions in California. SB 375 states, “Without improved land use and transportation policy, California would not be able to achieve the goals of AB 32.” SB 375 does the following: it (1) requires metropolitan planning organizations (MPOs) to include sustainable community strategies in their

<sup>3</sup> Based upon the 2019 GHG inventory data (i.e., the latest year for which data are available) for the 2000-2017 GHG emissions period, California emitted an average 424.1 MMTCO<sub>2</sub>e (29). This is less than the 2020 emissions target of 431 MMTCO<sub>2</sub>e.

regional transportation plans for reducing GHG emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies.

SB 375 requires MPOs to prepare a Sustainable Communities Strategy (SCS) within the Regional Transportation Plan (RTP) that guides growth while taking into account the transportation, housing, environmental, and economic needs of the region. SB 375 uses CEQA streamlining as an incentive to encourage residential projects, which help achieve AB 32 goals to reduce GHG emissions. Although SB 375 does not prevent CARB from adopting additional regulations, such actions are not anticipated in the foreseeable future.

Concerning CEQA, SB 375, as codified in Public Resources Code Section 21159.28, states that CEQA findings for certain projects are not required to reference, describe, or discuss (1) growth inducing impacts, or (2) any project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network, if the project:

1. Is in an area with an approved sustainable communities strategy or an alternative planning strategy that CARB accepts as achieving the GHG emission reduction targets.
2. Is consistent with that strategy (in designation, density, building intensity, and applicable policies).
3. Incorporates the MMs required by an applicable prior environmental document.

### **AB 1493 - Pavley Fuel Efficiency Standards**

The second phase of the implementation for the Pavley bill was incorporated into Amendments to the Low-Emission Vehicle Program (LEV III) or the Advanced Clean Cars (ACC) program. The ACC program combines the control of smog-causing pollutants and GHG emissions into a single coordinated package of requirements for MY 2017 through 2025. The regulation will reduce GHGs from new cars by 34% from 2016 levels by 2025. The new rules will clean up gasoline and diesel-powered cars, and deliver increasing numbers of zero-emission technologies, such as full battery electric cars, newly emerging plug-in hybrid EV and hydrogen fuel cell cars. The package will also ensure adequate fueling infrastructure is available for the increasing numbers of hydrogen fuel cell vehicles planned for deployment in California. On March 9, EPA reinstated California's authority under the Clean Air Act to implement its own GHG emission standards for cars and light trucks, which other states can also adopt and enforce. With this authority restored, EPA will continue partnering with states to advance the next generation of clean vehicle technologies.

### **CLEAN ENERGY AND POLLUTION REDUCTION ACT OF 2015 (SB 350)**

In October 2015, the legislature approved, and Governor Jerry Brown signed SB 350, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the RPS, higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for EV charging stations. Provisions for a 50% reduction in the use of petroleum statewide were removed from the Bill because of opposition and concern that it would prevent the Bill's passage. Specifically, SB 350 requires the following to reduce statewide GHG emissions:

- Increase the amount of electricity procured from renewable energy sources from 33% to 50% by 2030, with interim targets of 40% by 2024, and 25% by 2027.
- Double the energy efficiency in existing buildings by 2030. This target would be achieved through the California Public Utilities Commission (CPUC), the California Energy Commission (CEC), and local publicly owned utilities.
- Reorganize the Independent System Operator (ISO) to develop more regional electrify transmission markets and to improve accessibility in these markets, which would facilitate the growth of renewable energy markets in the western United States.

## SB 32

On September 8, 2016, Governor Brown signed SB 32 and its companion bill, AB 197. SB 32 requires the state to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15. The new legislation builds upon the AB 32 goal and provides an intermediate goal to achieving S-3-05, which sets a statewide GHG reduction target of 80% below 1990 levels by 2050. AB 197 creates a legislative committee to oversee regulators to ensure that CARB not only responds to the Governor, but also the Legislature (11).

### CARB SCOPING PLAN UPDATE

In November 2017, CARB released the *Final 2017 Scoping Plan Update (2017 Scoping Plan)*, which identifies the State's post-2020 reduction strategy. The *2017 Scoping Plan* reflects the 2030 target of a 40% reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. Key programs that the proposed Second Update builds upon include the Cap-and-Trade Regulation, the LCFS, and much cleaner cars, trucks, and freight movement, utilizing cleaner, renewable energy, and strategies to reduce CH<sub>4</sub> emissions from agricultural and other wastes.

The *2017 Scoping Plan* establishes a new emissions limit of 260 MMTCO<sub>2e</sub> for the year 2030, which corresponds to a 40% decrease in 1990 levels by 2030 (37).

California's climate strategy would require contributions from all sectors of the economy, including the land base, and would include enhanced focus on zero and near-zero emission (ZE/NZE) vehicle technologies; continued investment in renewables, including solar roofs, wind, and other distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (CH<sub>4</sub>, black carbon, and fluorinated gases); and an increased focus on integrated land use planning to support livable, transit-connected communities and conservation of agricultural and other lands. Requirements for direct GHG reductions at refineries would further support air quality co-benefits in neighborhoods, including in disadvantaged communities historically located adjacent to these large stationary sources, as well as efforts with California's local air pollution control and air quality management districts (air districts) to tighten emission limits on a broad spectrum of industrial sources. Major elements of the *2017 Scoping Plan* framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing zero-emission vehicles (ZEV) buses and trucks.

- LCFS, with an increased stringency (18% by 2030).
- Implementing SB 350, which expands the RPS to 50% RPS and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of ZEV trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy (SLPS), which focuses on reducing CH<sub>4</sub> and HCF emissions by 40% and anthropogenic black carbon emissions by 50% by year 2030.
- Continued implementation of SB 375.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- 20% reduction in GHG emissions from refineries by 2030.
- Development of a Natural and Working Lands Action Plan to secure California’s land base as a net carbon sink.

Note, however, that the *2017 Scoping Plan* acknowledges that:

*“[a]chieving net zero increases in GHG emissions, resulting in no contribution to GHG impacts, may not be feasible or appropriate for every project, however, and the inability of a project to mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA.”*

In addition to the statewide strategies listed above, the *2017 Scoping Plan* also identifies local governments as essential partners in achieving the State’s long-term GHG reduction goals and identifies local actions to reduce GHG emissions. As part of the recommended actions, CARB recommends that local governments achieve a community-wide goal to achieve emissions of no more than 6 metric tons of CO<sub>2</sub>e (MTCO<sub>2</sub>e) or less per capita by 2030 and 2 MTCO<sub>2</sub>e or less per capita by 2050. For CEQA projects, CARB states that lead agencies may develop evidence-based bright-line numeric thresholds—consistent with the *2017 Scoping Plan* and the State’s long-term GHG goals—and projects with emissions over that amount may be required to incorporate on-site design features and MMs that avoid or minimize project emissions to the degree feasible; or a performance-based metric using a CAP or other plan to reduce GHG emissions is appropriate.

According to research conducted by the Lawrence Berkeley National Laboratory (LBNL) and supported by CARB, California, under its existing and proposed GHG reduction policies, could achieve the 2030 goals under SB 32. The research utilized a new, validated model known as the California LBNL GHG Analysis of Policies Spreadsheet (CALGAPS), which simulates GHG and criteria pollutant emissions in California from 2010 to 2050 in accordance to existing and future GHG-reducing policies. The CALGAPS model showed that by 2030, emissions could range from 211 to 428 MTCO<sub>2</sub>e per year (MTCO<sub>2</sub>e/yr), indicating that “even if all modeled policies are not implemented, reductions could be sufficient to reduce emissions 40% below the 1990 level [of SB 32].” CALGAPS analyzed emissions through 2050 even though it did not generally account for policies that might be put in place after 2030. Although the research indicated that the emissions



would not meet the State’s 80% reduction goal by 2050, various combinations of policies could allow California’s cumulative emissions to remain very low through 2050 (38) (39).

#### **CAP-AND-TRADE PROGRAM**

The *2017 Scoping Plan* identifies a Cap-and-Trade Program as one of the key strategies for California to reduce GHG emissions. According to CARB, a cap-and-trade program would help put California on the path to meet its goal of achieving a 40% reduction in GHG emissions from 1990 levels by 2030. Under cap-and-trade, an overall limit on GHG emissions from capped sectors is established, and facilities subject to the cap would be able to trade permits to emit GHGs within the overall limit.

CARB adopted a California Cap-and-Trade Program pursuant to its authority under AB 32. The Cap-and-Trade Program is designed to reduce GHG emissions from regulated entities by more than 16% between 2013 and 2020, and by an additional 40% by 2030. The statewide cap for GHG emissions from the capped sectors (e.g., electricity generation, petroleum refining, and cement production) commenced in 2013 and would decline over time, achieving GHG emission reductions throughout the program’s duration.

Covered entities that emit more than 25,000 MTCO<sub>2</sub>e/yr must comply with the Cap-and-Trade Program. Triggering of the 25,000 MTCO<sub>2</sub>e/yr “inclusion threshold” is measured against a subset of emissions reported and verified under the California Regulation for the Mandatory Reporting of GHG Emissions (Mandatory Reporting Rule or “MRR”).

Under the Cap-and-Trade Program, CARB issues allowances equal to the total amount of allowable emissions over a given compliance period and distributes these to regulated entities. Covered entities are allocated free allowances in whole or part (if eligible), and may buy allowances at auction, purchase allowances from others, or purchase offset credits. Each covered entity with a compliance obligation is required to surrender “compliance instruments” for each MTCO<sub>2</sub>e of GHG they emit. There also are requirements to surrender compliance instruments covering 30% of the prior year’s compliance obligation by November of each year (40).

The Cap-and-Trade Program provides a firm cap, which provides the highest certainty of achieving the 2030 target. An inherent feature of the Cap-and-Trade program is that it does not guarantee GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are only guaranteed on an accumulative basis. As summarized by CARB in the *First Update to the Climate Change Scoping Plan*:

*“The Cap-and-Trade Regulation gives companies the flexibility to trade allowances with others or take steps to cost-effectively reduce emissions at their own facilities. Companies that emit more have to turn in more allowances or other compliance instruments. Companies that can cut their GHG emissions have to turn in fewer allowances. But as the cap declines, aggregate emissions must be reduced. In other words, a covered entity theoretically could increase its GHG emissions every year and still comply with the Cap-and-Trade Program if there is a reduction in GHG emissions from other covered entities. Such a focus on aggregate GHG emissions*

*is considered appropriate because climate change is a global phenomenon, and the effects of GHG emissions are considered cumulative.” (41)*

The Cap-and-Trade Program covers approximately 80% of California’s GHG emissions (37). The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects’ electricity usage are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the Program’s first compliance period. The Cap-and-Trade Program covers the GHG emissions associated with the combustion of transportation fuels in California, whether refined in-state or imported.

### **2.7.3.2 EXECUTIVE ORDERS RELATED TO GHG EMISSIONS**

California’s Executive Branch has taken several actions to reduce GHGs through the use of Executive Orders. Although not regulatory, they set the tone for the state and guide the actions of state agencies.

#### **EXECUTIVE ORDER S-3-05**

California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following reduction targets for GHG emissions:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80% below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that would stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

#### **EXECUTIVE ORDER S-01-07 (LCFS)**

Governor Schwarzenegger signed Executive Order S-01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California’s transportation fuels by at least 10% by 2020. CARB adopted the LCFS on April 23, 2009.

After a series of legal changes, in order to address the Court ruling, CARB was required to bring a new LCFS regulation to the Board for consideration in February 2015. The proposed LCFS regulation was required to contain revisions to the 2010 LCFS as well as new provisions designed to foster investments in the production of the low-carbon intensity fuels, offer additional flexibility to regulated parties, update critical technical information, simplify and streamline program operations, and enhance enforcement. On November 16, 2015, the Office of Administrative Law (OAL) approved the Final Rulemaking Package. The new LCFS regulation became effective on January 1, 2016.

In 2018, CARB approved amendments to the regulation, which included strengthening the carbon intensity benchmarks through 2030 in compliance with the SB 32 GHG emissions reduction target for 2030. The amendments included crediting opportunities to promote zero emission vehicle adoption, alternative jet fuel, carbon capture and sequestration, and advanced technologies to achieve deep decarbonization in the transportation sector (42).

#### **EXECUTIVE ORDER S-13-08**

Executive Order S-13-08 states that “climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California’s economy, to the health and welfare of its population and to its natural resources.” Pursuant to the requirements in the Order, the *2009 California Climate Adaptation Strategy (CNRA 2009)* was adopted, which is the “...first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States.” Objectives include analyzing risks of climate change in California, identifying, and exploring strategies to adapt to climate change, and specifying a direction for future research.

#### **EXECUTIVE ORDER B-30-15**

On April 29, 2015, Governor Brown issued an executive order to establish a California GHG reduction target of 40% below 1990 levels by 2030. The Governor’s executive order aligned California’s GHG reduction targets with those of leading international governments ahead of the U.N. Climate Change Conference in Paris late 2015. The Order sets a new interim statewide GHG emission reduction target to reduce GHG emissions to 40% below 1990 levels by 2030 in order to ensure California meets its target of reducing GHG emissions to 80% below 1990 levels by 2050 and directs CARB to update the *2017 Scoping Plan* to express the 2030 target in terms of MMTCO<sub>2e</sub>. The Order also requires the state’s climate adaptation plan to be updated every three years, and for the State to continue its climate change research program, among other provisions. As with Executive Order S-3-05, this Order is not legally enforceable as to local governments and the private sector. Legislation that would update AB 32 to make post 2020 targets and requirements a mandate is in process in the State Legislature.

#### **EXECUTIVE ORDER B-55-18 AND SB 100**

SB 100 and Executive Order B-55-18 were signed by Governor Brown on September 10, 2018. Under the existing RPS, 25% of retail sales of electricity are required to be from renewable sources by December 31, 2016, 33% by December 31, 2020, 40% by December 31, 2024, 45% by December 31, 2027, and 50% by December 31, 2030. SB 100 raises California’s RPS requirement to 50% renewable resources target by December 31, 2026, and to achieve a 60% target by December 31, 2030. SB 100 also requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt hours (kWh) of those products sold to their retail end-use customers achieve 44% of retail sales by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030. In addition to targets under AB 32 and SB 32, Executive Order B-55-18 establishes a carbon neutrality goal for the state of California by 2045; and sets a goal to maintain net negative emissions thereafter. The Executive Order directs the California Natural

Resources Agency (CNRA), California EPA (CalEPA), the California Department of Food and Agriculture (CDFA), and CARB to include sequestration targets in the Natural and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal.

### **2.7.3.3 CALIFORNIA REGULATIONS AND BUILDING CODES**

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California’s energy consumption relatively flat even with rapid population growth.

#### **TITLE 20 CCR SECTIONS 1601 ET SEQ. – APPLIANCE EFFICIENCY REGULATIONS**

The Appliance Efficiency Regulations regulate the sale of appliances in California. The Appliance Efficiency Regulations include standards for both federally regulated appliances and non-federally regulated appliances. 23 categories of appliances are included in the scope of these regulations. The standards within these regulations apply to appliances that are sold or offered for sale in California, except those sold wholesale in California for final retail sale outside the state and those designed and sold exclusively for use in recreational vehicles (RV) or other mobile equipment (CEC 2012).

#### **TITLE 24 CCR PART 6 – CALIFORNIA ENERGY CODE**

The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California’s energy consumption.

The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods.

#### **TITLE 24 CCR PART 11 – CALIFORNIA GREEN BUILDING STANDARDS CODE**

California Code of Regulations (CCR) Title 24 Part 6: The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California’s energy consumption.

The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on August 1, 2009, and is administered by the California Building Standards Commission.

CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that will be effective on January 1, 2023. The CEC anticipates that the 2022 energy code will provide \$1.5 billion in consumer benefits and reduce GHG emissions by 10 million metric tons (43). The Project would be required to comply with the applicable standards in place at the time plan check submittals are made. These require, among other items (44):

## NONRESIDENTIAL MANDATORY MEASURES

- Short-term bicycle parking. If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1.1).
- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (5.106.4.1.2).
- Designated parking for clean air vehicles. In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2 (5.106.5.2).
- EV charging stations. New construction shall facilitate the future installation of EV supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load. The number of spaces to be provided for is contained in Table 5.106.5.3.3 (5.106.5.3). Additionally, Table 5.106.5.4.1 specifies requirements for the installation of raceway conduit and panel power requirements for medium- and heavy-duty electric vehicle supply equipment for warehouses, grocery stores, and retail stores.
- Outdoor light pollution reduction. Outdoor lighting systems shall be designed to meet the backlight, uplight and glare ratings per Table 5.106.8 (5.106.8).
- Construction waste management. Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.405.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent (5.408.1).
- Excavated soil and land clearing debris. 100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reuse or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed (5.408.3).
- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive (5.410.1).
- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
  - Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (5.303.3.1)
  - Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush (5.303.3.2.1). The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush (5.303.3.2.2).

- Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi (5.303.3.3.1). When a shower is served by more than one showerhead, the combine flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (5.303.3.3.2).
- Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi (5.303.3.4.1). Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi (5.303.3.4.2). Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute (5.303.3.4.3). Metering faucets shall not deliver more than 0.20 gallons per cycle (5.303.3.4.4). Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle (5.303.3.4.5).
- Outdoor potable water uses in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent (5.304.1).
- Water meters. Separate submeters or metering devices shall be installed for new buildings or additions in excess of 50,000 sf or for excess consumption where any tenant within a new building or within an addition that is project to consume more than 1,000 gallons per day (GPD) (5.303.1.1 and 5.303.1.2).
- Outdoor water uses in rehabilitated landscape projects equal or greater than 2,500 sf. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 sf requiring a building or landscape permit (5.304.3).
- Commissioning. For new buildings 10,000 sf and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (5.410.2).

#### **CARB REFRIGERANT MANAGEMENT PROGRAM**

CARB adopted a regulation in 2009 to reduce refrigerant GHG emissions from stationary sources through refrigerant leak detection and monitoring, leak repair, system retirement and retrofitting, reporting and recordkeeping, and proper refrigerant cylinder use, sale, and disposal. The regulation is set forth in sections 95380 to 95398 of Title 17, CCR. The rules implementing the regulation establish a limit on statewide GHG emissions from stationary facilities with refrigeration systems with more than 50 pounds of a high GWP refrigerant. The refrigerant management program is designed to (1) reduce emissions of high-GWP GHG refrigerants from leaky stationary, non-residential refrigeration equipment; (2) reduce emissions from the installation and servicing of refrigeration and air-conditioning appliances using high-GWP refrigerants; and (3) verify GHG emission reductions.

#### **TRACTOR-TRAILER GHG REGULATION**

The tractors and trailers subject to this regulation must either use EPA SmartWay certified tractors and trailers or retrofit their existing fleet with SmartWay verified technologies. The regulation applies primarily to owners of 53-foot or longer box-type trailers, including both dry-van and refrigerated-van trailers, and owners of the HD tractors that pull them on California highways. These owners are responsible for replacing or retrofitting their affected vehicles with

compliant aerodynamic technologies and low rolling resistance tires. Sleeper cab tractors MY 2011 and later must be SmartWay certified. All other tractors must use SmartWay verified low rolling resistance tires. There are also requirements for trailers to have low rolling resistance tires and aerodynamic devices.

#### **PHASE 1 AND 2 HEAVY-DUTY VEHICLE GHG STANDARDS**

In September 2011, CARB has adopted a regulation for GHG emissions from HDTs and engines sold in California. It establishes GHG emission limits on truck and engine manufacturers and harmonizes with the EPA rule for new trucks and engines nationally. Existing HD vehicle regulations in California include engine criteria emission standards, tractor-trailer GHG requirements to implement SmartWay strategies (i.e., the Heavy-Duty Tractor-Trailer GHG Regulation), and in-use fleet retrofit requirements such as the Truck and Bus Regulation. The EPA rule has compliance requirements for new compression and spark ignition engines, as well as trucks from Class 2b through Class 8. Compliance requirements began with MY 2014 with stringency levels increasing through MY 2018. The rule organizes truck compliance into three groupings, which include a) HD pickups and vans; b) vocational vehicles; and c) combination tractors. The EPA rule does not regulate trailers.

CARB staff has worked jointly with the EPA and the NHTSA on the next phase of federal GHG emission standards for medium-duty trucks (MDT) and HDT vehicles, called federal Phase 2. The federal Phase 2 standards were built on the improvements in engine and vehicle efficiency required by the Phase 1 emission standards and represent a significant opportunity to achieve further GHG reductions for 2018 and later MY HDT vehicles, including trailers. The EPA and NHTSA have proposed to roll back GHG and fuel economy standards for cars and light-duty trucks, which suggests a similar rollback of Phase 2 standards for MDT and HDT vehicles may be pursued.

#### **SB 97 AND THE CEQA GUIDELINES UPDATE**

Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. The code states “(a) On or before July 1, 2009, the Office of Planning and Research (OPR) shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of GHG emissions or the effects of GHG emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the OPR pursuant to subdivision (a).”

In 2012, Public Resources Code Section 21083.05 was amended to state:

*“The Office of Planning and Research and the Natural Resources Agency shall periodically update the guidelines for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption, to incorporate new information or criteria established by the State Air Resources Board pursuant to Division 25.5 (commencing with Section 38500) of the Health and Safety Code.”*

On December 28, 2018, the Natural Resources Agency announced the OAL approved the amendments to the *CEQA Guidelines* for implementing CEQA. The CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. The CEQA Amendments fit within the existing CEQA framework by amending existing *CEQA Guidelines* to reference climate change.

Section 15064.4 was added to the *CEQA Guidelines* and states that in determining the significance of a project's GHG emissions, the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change. A project's incremental contribution may be cumulatively considerable even if it appears relatively insignificant compared to statewide, national, or global emissions. The agency's analysis should consider a timeframe that is appropriate for the project. The agency's analysis also must reasonably reflect evolving scientific knowledge and state regulatory schemes. Additionally, a lead agency may use a model or methodology to estimate GHG emissions resulting from a project. The lead agency has discretion to select the model or methodology it considers most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change. The lead agency must support its selection of a model or methodology with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use (45).

#### **2.7.4 REGIONAL**

The project is within the SCAB, which is under the jurisdiction of the SCAQMD.

#### **SCAQMD**

SCAQMD is the agency responsible for air quality planning and regulation in the SCAB. The SCAQMD addresses the impacts to climate change of projects subject to SCAQMD permit as a lead agency if they are the only agency having discretionary approval for the project and acts as a responsible agency when a land use agency must also approve discretionary permits for the project. The SCAQMD acts as an expert commenting agency for impacts to air quality. This expertise carries over to GHG emissions, so the agency helps local land use agencies through the development of models and emission thresholds that can be used to address GHG emissions.

In 2008, SCAQMD formed a Working Group to identify GHG emissions thresholds for land use projects that could be used by local lead agencies in the SCAB. The Working Group developed several different options that are contained in the SCAQMD Draft Guidance Document – Interim CEQA GHG Significance Threshold, which could be applied by lead agencies. The working group has not provided additional guidance since release of the interim guidance in 2008. The SCAQMD Board has not approved the thresholds; however, the Guidance Document provides substantial evidence supporting the approaches to significance of GHG emissions that can be considered by the lead agency in adopting its own threshold. The current interim thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.



- Tier 2 consists of determining whether the project is consistent with a GHG reduction plan. If a project is consistent with a qualifying local GHG reduction plan, it does not have significant GHG emissions.
- Tier 3 consists of screening values, which the lead agency can choose, but must be consistent with all projects within its jurisdiction. A project's construction emissions are averaged over 30 years and are added to the project's operational emissions. If a project's emissions are below one of the following screening thresholds, then the project is less than significant:
  - Residential and commercial land use: 3,000 MTCO<sub>2</sub>e/yr
  - Industrial land use: 10,000 MTCO<sub>2</sub>e/yr
  - Based on land use type: residential: 3,500 MTCO<sub>2</sub>e/yr; commercial: 1,400 MTCO<sub>2</sub>e/yr; or mixed use: 3,000 MTCO<sub>2</sub>e/yr
- Tier 4 has the following options:
  - Option 1: Reduce Business-as-Usual (BAU) emissions by a certain percentage; this percentage is currently undefined.
  - Option 2: Early implementation of applicable AB 32 Scoping Plan measures
  - Option 3: 2020 target for service populations (SP), which includes residents and employees: 4.8 MTCO<sub>2</sub>e per SP per year for projects and 6.6 MTCO<sub>2</sub>e per SP per year for plans;
  - Option 3, 2035 target: 3.0 MTCO<sub>2</sub>e per SP per year for projects and 4.1 MTCO<sub>2</sub>e per SP per year for plans
- Tier 5 involves mitigation offsets to achieve target significance threshold.

The SCAQMD's interim thresholds used the Executive Order S-3-05-year 2050 goal as the basis for the Tier 3 screening level. Achieving the Executive Order's objective would contribute to worldwide efforts to cap CO<sub>2</sub> concentrations at 450 ppm, thus stabilizing global climate.

SCAQMD only has authority over GHG emissions from development projects that include air quality permits. At this time, it is unknown if the project would include stationary sources of emissions subject to SCAQMD permits. Notwithstanding, if the Project requires a stationary permit, it would be subject to the applicable SCAQMD regulations.

SCAQMD Regulation XXVII, adopted in 2009 includes the following rules:

- Rule 2700 defines terms and post global warming potentials.
- Rule 2701, SoCal Climate Solutions Exchange, establishes a voluntary program to encourage, quantify, and certify voluntary, high quality certified GHG emission reductions in the SCAQMD.
- Rule 2702, GHG Reduction Program created a program to produce GHG emission reductions within the SCAQMD. The SCAQMD would fund projects through contracts in response to requests for proposals or purchase reductions from other parties.

**CITY OF ONTARIO COMMUNITY CLIMATE ACTION PLAN (CCAP)**

The Community Climate Action Plan (CCAP) contains further guidance on the City of Ontario's GHG Inventory reduction goals, policies, guidelines, and implementation programs. The purpose of the CCAP is to provide guidance on how to analyze GHG emissions and determine significance during the CEQA review of proposed development projects within the City of Ontario (46). The CCAP builds upon the Reduction Plan to address City-specific information and City-specific GHG reduction measures. To address the state's requirement to reduce GHG emissions, the CCAP was prepared with the goal of reducing GHG emissions within the City by 15% below 2008 levels by the year 2020. The City's target is consistent with the AB 32 target and ensures that the City of Ontario achieves GHG reductions locally that complement and are consistent with state efforts to reduce GHG emissions.

As part of the CCAP, the City of Ontario published a guidance document titled "Greenhouse Gas Emissions, CEQA Thresholds and Screening Tables" (December 2014). As part of this guidance, the CCAP determined that if GHG emissions of a given project exceeds 3,000 MTCO<sub>2</sub>e/yr, then project emissions would need to be reduced by 25 percent when compared to year 2008 emissions levels. Alternatively, the project would need to achieve a minimum of 100 points pursuant to measures identified in the Screening Tables.

The 2022 update to the Ontario Plan includes an update to the City's CCAP which was originally adopted on December 16, 2014. As stated in The Ontario Plan 2050 Draft Supplemental Environmental Impact Report (SEIR), the measures included in the 2022 update to the CCAP are not substantially different than that of the 2014 CCAP and therefore there is no change in the environmental impacts associated with the CCAP. As such, it is appropriate for the proposed Project to rely on the CEQA Thresholds and Screening Tables that were adopted under the 2014 CCAP, since the 2022 update to the CCAP does not contain measures that would be substantially different than the 2014 CCAP (47).

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### 3 EXISTING SITE GHG IMPACT

The Project site is currently occupied and operating as a grain processing company and a corn storage and distribution facility. GHG emissions from the existing development are summarized on Table 3-1.

**TABLE 3-1: EMISSIONS FROM EXISTING DEVELOPMENT**

Emission Source	Emissions (MT/yr)				
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Refrigerants	Total CO <sub>2</sub> e
Mobile Source	1,130.00	0.10	0.15	1.47	1,177.00
Area Source	0.85	0.00	0.00	0.00	0.87
Energy Source	247.00	0.02	0.00	0.00	248.00
Water Usage	13.50	0.32	0.01	0.00	23.60
Waste	3.50	0.35	0.00	0.00	12.30
Refrigerants	0.00	0.00	0.00	184.00	184.00
<b>Total CO<sub>2</sub>e (All Sources)</b>	<b>1,645.77</b>				

Source: CalEEMod output, See Appendix 3.1 for detailed model outputs.

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## 4 PROJECT GHG IMPACT

### 4.1 INTRODUCTION

The Project has been evaluated to determine if it would result in a significant GHG impact. The significance of these potential impacts is described in the following sections.

### 4.2 STANDARDS OF SIGNIFICANCE

The criteria used to determine the significance of potential Project-related GHG impacts are taken from the Initial Study Checklist in Appendix G of the State *CEQA Guidelines* (14 CCR of Regulations §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to GHG if it would (1):

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?

#### 4.2.1 DISCUSSION ON ESTABLISHMENT OF SIGNIFICANCE THRESHOLDS

As previously stated, SEIR identifies that the measures included in the 2022 update to the CCAP are not substantially different than that of the 2014 CCAP and therefore there is no change in the environmental impacts associated with the CCAP. As such, and consistent with the 2014 CCAP, this analysis relies on the annual screening threshold of 3,000 MTCO<sub>2</sub>e/yr to define small projects that are considered less than significant and do not require further GHG emissions calculations or analysis. Projects that do not exceed an annual 3,000 MTCO<sub>2</sub>e/yr are therefore considered less than significant and would not require further analysis or mitigation.

### 4.3 MODELS EMPLOYED TO ANALYZE GHGS

#### 4.3.1 CALIFORNIA EMISSIONS ESTIMATOR MODEL (CALEEMOD)

In May 2022 the California Air Pollution Control Officers Association (CAPCOA) in conjunction with other California air districts, including SCAQMD, released the latest version of CalEEMod Version 2022.1. The purpose of this model is to calculate construction-source and operational-source criteria pollutants and GHG emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures (48). Accordingly, the latest version of CalEEMod has been used for this Project to determine GHG emissions. Output from the model runs for construction and operational activity are provided in Appendices 4.1 through 4.2. CalEEMod includes GHG emissions from the following source categories: construction, area, energy, mobile, waste, water.

### 4.4 LIFE-CYCLE ANALYSIS NOT REQUIRED

A full life-cycle analysis (LCA) for construction and operational activity is not included in this analysis due to the lack of consensus guidance on LCA methodology at this time (49). Life-cycle

analysis (i.e., assessing economy-wide GHG emissions from the processes in manufacturing and transporting all raw materials used in the Project development, infrastructure, and on-going operations) depends on emission factors or econometric factors that are not well established for all processes. At this time, a LCA would be extremely speculative and thus has not been prepared.

Additionally, the SCAQMD recommends analyzing direct and indirect project GHG emissions generated within California and not life-cycle emissions because the life-cycle effects from a project could occur outside of California, might not be very well understood, or documented, and would be challenging to mitigate (50). Additionally, the science to calculate life cycle emissions is not yet established or well defined; therefore, SCAQMD has not recommended, and is not requiring, life-cycle emissions analysis.

## 4.5 CONSTRUCTION EMISSIONS

Project construction activities would generate CO<sub>2</sub> and CH<sub>4</sub> emissions. The *IE Distribution Center #14 Air Quality Impact Analysis (AQIA)* report contains detailed information regarding Project construction activities (51). As discussed in the AQIA, Construction related emissions are expected from the following construction activities:

- Demolition/Crushing
- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating/Landscaping

### 4.5.1 CONSTRUCTION DURATION

For purposes of analysis, construction of Project is expected to commence in May 2023 and would last through April 2024. The construction schedule utilized in the analysis, shown in Table 4-1, represents a “worst-case” analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent<sup>4</sup>. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per *CEQA Guidelines* (52).

<sup>4</sup> As shown in the CalEEMod User’s Guide Version 2022.1, Section 4.3 “Off-Road Equipment” as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

**TABLE 4-1: CONSTRUCTION DURATION**

Construction Activity	Start Date	End Date	Days
Demolition/Crushing	05/02/2023	07/24/2023	60
Site Preparation	07/25/2023	09/04/2023	30
Grading	07/25/2023	09/04/2023	30
Building Construction	09/05/2023	04/15/2024	160
Paving	02/13/2024	04/15/2024	45
Architectural Coating/Landscaping	03/05/2024	04/15/2024	30

**4.5.2 CONSTRUCTION EQUIPMENT**

A summary of construction equipment assumptions by phase is provided at Table 4-4. In accordance the City of Ontario General Plan Update, this analysis assumed the use of CARB Tier 4 Interim equipment during Project construction.

**TABLE 4-2: CONSTRUCTION EQUIPMENT ASSUMPTIONS**

Construction Activity	Equipment	Amount	Hours Per Day
Demolition/Crushing	Rubber Tired Dozers	2	8
	Excavators	3	8
	Concrete/Industrial Saws	1	8
	Crushing/Proc. Equipment <sup>1</sup>	1	8
Site Preparation	Rubber Tired Dozers	3	8
	Crawler Tractors	4	8
Grading	Graders	1	8
	Excavators	2	8
	Scrapers	2	8
	Rubber Tired Dozers	1	8
	Crawler Tractors	2	8
Building Construction	Forklifts	5	8
	Generator Sets	2	8
	Cranes	2	8
	Welders	2	8
	Crawler Tractors	5	8
Pavers	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	1	8

<sup>1</sup> The Project will use an electric-powered crusher which will be powered by a diesel generator. As a conservative measure, this analysis models a single diesel-powered generator set.



### 4.5.3 CONSTRUCTION EMISSIONS SUMMARY

For construction phase Project emissions, GHGs are quantified and amortized over the life of the Project. To amortize the emissions over the life of the Project, the SCAQMD recommends calculating the total GHG emissions for the construction activities, dividing it by a 30-year Project life then adding that number to the annual operational phase GHG emissions (53). As such, construction emissions were amortized over a 30-year period and added to the annual operational phase GHG emissions. The amortized construction emissions are presented in Table 4-3.

**TABLE 4-3: AMORTIZED ANNUAL CONSTRUCTION EMISSIONS**

Year	Emissions (MT/yr)				
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Refrigerants	Total CO <sub>2</sub> e <sup>5</sup>
2023	616.94	0.01	0.01	0.24	624.02
2024	295.91	0.01	0.00	0.15	299.13
Total GHG Emissions	912.85	0.02	0.01	0.39	923.15
<b>Amortized Construction Emissions</b>	<b>30.43</b>	<b>6.67E-04</b>	<b>3.33E-04</b>	<b>0.01</b>	<b>30.77</b>

Source: CalEEMod annual construction-source emissions are presented in Appendix 4.1.

<sup>^</sup> CalEEMod reports the most common GHGs emitted which include CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O. These GHGs are then converted into the CO<sub>2</sub>e by multiplying the individual GHG by the GWP.

## 4.6 OPERATIONAL EMISSIONS

Operational activities associated with the Project would result in emissions of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions
- Transportation Refrigeration Units (TRU) Emissions
- On-Site Cargo Handling Equipment Emissions
- Water Supply, Treatment, and Distribution
- Solid Waste

### 4.6.1 AREA SOURCE EMISSIONS

#### LANDSCAPE MAINTENANCE EQUIPMENT

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the

<sup>5</sup> CalEEMod reports the most common GHGs emitted which include CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O. These GHGs are then converted into the CO<sub>2</sub>e by multiplying the individual GHG by the GWP.

landscaping of the Project. It should be noted that as October 9, 2021, Governor Gavin Newsom signed AB 1346. The bill aims to ban the sale of new gasoline-powered equipment under 25 gross horsepower (known as small off-road engines [SOREs]) by 2024. For purposes of analysis, the emissions associated with landscape maintenance equipment were calculated based on assumptions provided in CalEEMod.

#### 4.6.2 ENERGY SOURCE EMISSIONS

##### COMBUSTION EMISSIONS ASSOCIATED WITH NATURAL GAS AND ELECTRICITY

GHGs are emitted from buildings as a result of activities for which electricity and natural gas are typically used as energy sources. Combustion of any type of fuel emits CO<sub>2</sub> and other GHGs directly into the atmosphere; these emissions are considered direct emissions associated with a building; the building energy use emissions do not include street lighting<sup>6</sup>. GHGs are also emitted during the generation of electricity from fossil fuels; these emissions are considered to be indirect emissions. Natural gas and electricity usage associated with the Project were calculated by CalEEMod using default parameters.

#### 4.6.3 MOBILE SOURCE EMISSIONS

The Project related operational GHG emissions derive primarily from vehicle trips generated by the Project, including employee trips to and from the site and truck trips associated with the proposed uses. It should be noted that CalEEMod has different trip rates for different days of the week. In order to accurately determine mobile-source emission from vehicle activity generated by the proposed Project, the CalEEMod default trip rates were adjusted for weekday, Saturday, and Sunday utilizing the trip rates based on trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021) (54). The following trip generation rates and vehicle mix were utilized for calculating the trip generation for the proposed Project:

- High-Cube Cold Storage Warehouse (ITE land use code 157) has been used to derive site specific trip generation estimates for the 27,034-sf building of the proposed Project. High-cube warehouses include warehouses characterized by the storage and/or consolidation of manufactured goods (and to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. High-cube cold storage warehouses are facilities typified by temperature-controlled environments for frozen food or other perishable products. The High-Cube Cold Storage Warehouse vehicle mix (passenger cars versus trucks) has been obtained from the ITE's Trip Generation Manual. The truck percentages were further broken down by axle type per the following SCAQMD recommended truck mix: 2-Axle = 36.4%; 3-Axle = 9.09%; 4+-Axle = 54.6%.
- ITE Land Use Code 150 has been used to derive site specific trip generation estimates for the 243,303-sf building of the proposed Project. The vehicle mix has been obtained from the ITE's Trip Generation Manual Supplement (dated February 2020). The truck percentages were further

<sup>6</sup> The CalEEMod emissions inventory model does not include indirect emission related to street lighting. Indirect emissions related to street lighting are expected to be negligible and cannot be accurately quantified at this time as there is insufficient information as to the number and type of street lighting that would occur.

broken down by axle type per the following SCAQMD recommended truck mix: 2-Axle = 16.4%; 3-Axle = 20.6%; 4+-Axle = 63.0%.

#### APPROACH FOR ANALYSIS OF THE PROJECT

In order to determine emissions from passenger car vehicles, CalEEMod defaults for trip length and trip purpose were utilized. Default vehicle trip lengths for primary trips will be populated using data from the local metropolitan planning organizations/Regional Transportation Planning Agencies (MPO/RTPA). Trip type percentages and trip lengths provided by MPO/RTPAs truncate data at their demonstrative borders. This analysis assumes that passenger cars include Light-Duty-Auto vehicles (LDA), Light-Duty-Trucks (LDT1<sup>7</sup> & LDT2<sup>8</sup>), Medium-Duty-Vehicles (MDV), and Motorcycles (MCY) vehicle types. In order to account for emissions generated by passenger cars, the fleet mix in Table 4-4 was utilized.

**TABLE 4-4: PASSENGER CAR FLEET MIX**

Land Use	% Vehicle Type				
	LDA	LDT1	LDT2	MDV	MCY
High-Cube Cold Storage	56.23%	4.67%	22.39%	14.70%	2.01%
Warehouse					

Note: The Project-specific passenger car fleet mix used in this analysis is based on a proportional split utilizing the default CalEEMod percentages assigned to LDA, LDT1, LDT2, and MDV vehicle types.

To determine emissions from trucks for the proposed industrial uses, the analysis incorporated the SCAQMD recommended truck trip length of 15.3 miles for 2-axle (LHDT1, LHDT2), 14.2 miles for 3-axle (MHDT) trucks, and 40 miles for 4+-axle (HHDT) trucks and weighting the average trip lengths using traffic trip percentages. The trip length function for the general light industrial use has been revised to 30.58 miles and 28.62 miles for the high-cube cold storage and warehouse uses, respectively, an assumption of 100% primary trips for the proposed industrial land uses. Trucks are broken down by truck type. The truck fleet mix is estimated by rationing the trip rates for each truck type based on information provided by the SCAQMD recommended truck mix, by axle type. Heavy trucks are broken down by truck type (or axle type) and are categorized as either Light-Heavy-Duty Trucks (LHDT1<sup>9</sup> & LHDT2<sup>10</sup>)/2-axle, Medium-Heavy-Duty Trucks (MHDT)/3-axle, and Heavy-Heavy-Duty Trucks (HHDT)/4+-axle. To account for emissions generated by trucks, the fleet mix in Table 4-5 was utilized.

<sup>7</sup> Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.

<sup>8</sup> Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.

<sup>9</sup> Vehicles under the LHDT1 category have a GVWR of 8,501 to 10,000 lbs.

<sup>10</sup> Vehicles under the LHDT2 category have a GVWR of 10,001 to 14,000 lbs.

**TABLE 4-5: TRUCK FLEET MIX**

Land Use	% Vehicle Type			
	LHDT1	LHDT2	MHDT	HHDT
High-Cube Cold Storage	12.94%	3.49%	20.55%	63.01%
Warehouse	28.64%	7.73%	9.09%	54.55%

Note: Project-specific truck fleet mix is based on the number of trips generated by each truck type (LHDT1, LHDT2, MHDT, and HHDT) relative to the total number of truck trips.

#### 4.6.4 TRU EMISSIONS

In order to account for the possibility of refrigerated uses, trucks associated with the cold-storage land use are assumed to also have TRUs. Therefore, for modeling purposes 11 trucks have the potential to include TRUs. TRUs are accounted for during on-site and off-site travel. The TRU calculations are based on EMISSIONS FACTOR Model version 2021 (EMFAC2021), developed by the CARB. EMFAC2021 does not provide emission rates per hour or mile as with the on-road emission model and only provides emission inventories. Emission results are produced in tons per day while all activity, fuel consumption and horsepower hours were reported at annual levels. The emission inventory is based on specific assumptions including the average horsepower rating of specific types of equipment and the hours of operation annually. These assumptions are not always consistent with assumptions used in the modeling of project level emissions. Therefore, the emissions inventory was converted into emission rates to accurately calculate emissions from TRU operation associated with project level details. This was accomplished by converting the annual horsepower hours to daily operational characteristics and converting the daily emission levels into hourly emission rates based on the total emission of each criteria pollutant by equipment type and the average daily hours of operation.

#### 4.6.5 ON-SITE CARGO HANDLING EQUIPMENT EMISSIONS

It is common for industrial buildings to require the operation of exterior cargo handling equipment in the building's truck court areas. For this particular Project, on-site modeled operational equipment includes up to one (1) 175 horsepower (hp), natural gas-powered cargo handling equipment – port tractor operating at 4 hours a day<sup>11</sup> for 365 days of the year.

#### 4.6.6 WATER SUPPLY, TREATMENT AND DISTRIBUTION

Indirect GHG emissions result from the production of electricity used to convey, treat, and distribute water and wastewater. The amount of electricity required to convey, treat, and distribute water depends on the volume of water as well as the sources of the water. Unless otherwise noted, CalEEMod default parameters were used.

<sup>11</sup> Based on Table II-3, Port and Rail Cargo Handling Equipment Demographics by Type, from CARB's Technology Assessment: Mobile Cargo Handling Equipment document, a single piece of equipment could operate up to 2 hours per day (Total Average Annual Activity divided by Total Number Pieces of Equipment). As such, the analysis conservatively assumes that the tractor/loader/backhoe would operate up to 4 hours per day.

#### 4.6.7 SOLID WASTE

Industrial land uses would result in the generation and disposal of solid waste. A percentage of this waste would be diverted from landfills by a variety of means, such as reducing the amount of waste generated, recycling, and/or composting. The remainder of the waste not diverted would be disposed of at a landfill. GHG emissions from landfills are associated with the anaerobic breakdown of material. GHG emissions associated with the disposal of solid waste associated with the proposed Project were calculated by CalEEMod using default parameters.

#### 4.6.8 EMISSIONS SUMMARY

The estimated Project-related GHG emissions are summarized on Table 4-6. It should be noted that the existing development emissions were subtracted from the Project GHG emissions to determine the new emissions from the proposed Project. Detailed operation model outputs for the Project are presented in Appendix 4.2. As shown in Table 4-6, construction and operation of the Project would generate a total of 2,590.77 MTCO<sub>2</sub>e/yr.

**TABLE 4-6: PROJECT GHG EMISSIONS**

Emission Source	Emissions (MT/yr)				
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Refrigerants	Total CO <sub>2</sub> e
Annual construction-related emissions amortized over 30 years	30.43	6.67E-04	3.33E-04	0.01	30.77
Mobile Source	1,536.00	0.11	0.18	2.15	1,596.00
Area Source	5.48	0.00	0.00	0.00	5.64
Energy Source	847.00	0.08	0.00	0.00	850.00
Water Usage	88.10	2.04	0.05	0.00	154.00
Waste	22.70	2.27	0.00	0.00	79.30
Refrigerants	0.00	0.00	0.00	1,078.00	1,078.00
TRU Source					156.68
On-Site Equipment					286.15
<b>Total CO<sub>2</sub>e (All Sources)</b>	<b>4,236.54</b>				
<i>Existing</i>	<i>1,645.77</i>				
<b>Total Net CO<sub>2</sub>e (All Sources)</b>	<b>2,590.77</b>				

Source: CalEEMod output, See Appendix 4.2 for detailed model outputs.

### 4.7 GHG EMISSIONS FINDINGS AND RECOMMENDATIONS

#### 4.7.1 GHG IMPACT 1

***Would the Project generate GHG emissions either directly or indirectly, that may have a significant impact on the environment?***

As discussed within the CCAP, projects that generate less than 3,000 MTCO<sub>2</sub>e/yr would have a less-than-significant GHG emissions impact. As shown, the proposed Project would generate a total of 2,590.77 MTCO<sub>2</sub>e/yr and would therefore not exceed the 3,000 MTCO<sub>2</sub>e/yr significance threshold.

**The Project would not have the potential to generate direct or indirect GHG emissions that would result in a significant impact on the environment.**

**4.7.2 GHG IMPACT 2**

**Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?**

As previously stated, pursuant to 15604.4 of the CEQA Guidelines, a lead agency may rely on qualitative analysis or performance-based standards to determine the significance of impacts from GHG emissions (45). As such, the Project’s consistency with the City’s CCAP, AB 32 and SB 32 are discussed below. It should be noted that the Project’s consistency with the SB 32 (2017 Scoping Plan) also satisfies consistency with AB 32 since the 2017 Scoping Plan is based on the overall targets established by AB 32. Consistency with the 2008 Scoping Plan is not necessary, since the target year for the 2008 Scoping Plan was 2020, and the Project’s buildout year is 2024. As such the 2008 Scoping Plan does not apply and consistency with the 2017 Scoping Plan is relevant.

**CONSISTENCY WITH THE CITY’S CCAP**

Since the Project does not exceed the established annual screening threshold of 3,000 MTCO<sub>2</sub>e/yr, the Project is considered less than significant, does not require further GHG emissions calculations or analysis, and is presumed to be consistent with the City’s CCAP.

**SB 32/2017 SCOPING PLAN CONSISTENCY**

The 2017 Scoping Plan Update reflects the 2030 target of a 40% reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. Table 4-7 summarizes the Project’s consistency with the 2017 Scoping Plan. As summarized, the Project will not conflict with any of the provisions of the Scoping Plan and in fact supports seven of the action categories.

**TABLE 4-7: 2017 SCOPING PLAN CONSISTENCY SUMMARY<sup>12</sup>**

Action	Responsible Parties	Consistency
<b>Implement SB 350 by 2030</b>		
Increase the Renewables Portfolio Standard to 50% of retail sales by 2030 and ensure grid reliability.	CPUC, CEC, CARB	<b>Consistent.</b> The Project would use energy from Southern California Edison (SCE). SCE has committed to diversify its portfolio of energy sources by increasing energy from wind and solar sources. The Project would not interfere with or obstruct SCE energy source diversification efforts.

<sup>12</sup> Measures can be found at the following link: [https://www.arb.ca.gov/cc/scopingplan/scoping\\_plan\\_2017.pdf](https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf)

Action	Responsible Parties	Consistency
<p>Establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030.</p>		<p><b>Consistent.</b> The proposed Project would be designed and constructed to implement the energy efficiency measures, where applicable by including several measures designed to reduce energy consumption. The proposed Project would include energy efficient lighting and fixtures that meet the applicable Title 24 Standards throughout the Project Site and would be a modern development with energy efficient boilers, heaters, and air conditioning systems.</p>
<p>Reduce GHG emissions in the electricity sector through the implementation of the above measures and other actions as modeled in Integrated Resource Planning (IRP) to meet GHG emissions reductions planning targets in the IRP process. Load-serving entities and publicly- owned utilities meet GHG emissions reductions planning targets through a combination of measures as described in IRPs.</p>		<p><b>Consistent.</b> The proposed Project would be designed and constructed to implement the energy efficiency measures, where applicable by including several measures designed to reduce energy consumption. The proposed Project would include energy efficient lighting and fixtures that meet the applicable Title 24 Standards throughout the Project Site and would be a modern development with energy efficient boilers, heaters, and air conditioning systems.</p>
<p><b>Implement Mobile Source Strategy (Cleaner Technology and Fuels)</b></p>		
<p>At least 1.5 million zero emission and plug-in hybrid light-duty EVs by 2025.</p>	<p>CARB, California State Transportation Agency (CalSTA), Strategic Growth Council (SGC), California Department of Transportation (Caltrans), CEC, OPR, Local Agencies</p>	<p><b>Consistent.</b> This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty EV 2025 targets. As this is a CARB enforced standard, vehicles that access the Project are required to comply with the standards and will therefore comply with the strategy.</p>
<p>At least 4.2 million zero emission and plug-in hybrid light-duty EVs by 2030.</p>		<p><b>Consistent.</b> This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty EV 2030 targets. As this is a CARB enforced standard, vehicles that access the Project are required to comply with the standards and will therefore comply with the strategy.</p>
<p>Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean cars regulations.</p>		<p><b>Consistent.</b> This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean cars regulations. As this is a CARB enforced standard, vehicles that access</p>

Action	Responsible Parties	Consistency
		the Project are required to comply with the standards and will therefore comply with the strategy.
Medium- and Heavy-Duty GHG Phase 2.		<b>Consistent.</b> This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to implement Medium- and Heavy-Duty GHG Phase 2. As this is a CARB enforced standard, vehicles that access the Project are required to comply with the standards and will therefore comply with the strategy.
Innovative Clean Transit: Transition to a suite of to-be-determined innovative clean transit options. Assumed 20% of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100% of new sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NO <sub>x</sub> standard.		<b>Consistent.</b> The Project would not obstruct or interfere with agency efforts to transition to a suite of to-be-determined innovative clean transit options.
Last Mile Delivery: New regulation that would result in the use of low NO <sub>x</sub> or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California. This measure assumes ZEVs comprise 2.5% of new Class 3–7 truck sales in local fleets starting in 2020, increasing to 10% in 2025 and remaining flat through 2030.		<b>Consistent.</b> The Project would not obstruct or interfere with agency efforts to use low NO <sub>x</sub> or cleaner engines or the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California.
Further reduce VMT through continued implementation of SB 375 and regional Sustainable Communities Strategies; forthcoming statewide implementation of SB 743; and potential additional VMT reduction strategies not specified in the Mobile Source Strategy but included in the document “Potential VMT Reduction Strategies for Discussion.”		<b>Consistent.</b> This Project would not obstruct or interfere with implementation of SB 375 and would therefore not conflict with this measure.
Increase stringency of SB 375 Sustainable Communities Strategy (2035 targets).	CARB	<b>Consistent.</b> The Project would not obstruct or interfere with agency efforts to increase stringency of SB 375 Sustainable Communities Strategy.



Action	Responsible Parties	Consistency
<p>Harmonize project performance with emissions reductions and increase competitiveness of transit and active transportation modes (e.g. via guideline documents, funding programs, project selection, etc.).</p>	<p>CalSTA, SGC, OPR, CARB, Governor’s Office of Business and Economic Development (GO-Biz), California Infrastructure and Economic Development Bank (IBank), Department of Finance (DOF), California Transportation Commission (CTC), Caltrans</p>	<p><b>Consistent.</b> The Project would not obstruct or interfere with agency efforts to harmonize transportation facility project performance with emissions reductions and increase competitiveness of transit and active transportation modes.</p>
<p>Develop pricing policies to support low-GHG transportation (e.g. low-emission vehicle zones for heavy duty, road user, parking pricing, transit discounts).</p>	<p>CalSTA, Caltrans, CTC, OPR, SGC, CARB</p>	<p><b>Consistent.</b> The Project would not obstruct or interfere with agency efforts to develop pricing policies to support low-GHG transportation.</p>
<p><b>Implement California Sustainable Freight Action Plan</b></p>		
<p>Improve freight system efficiency.</p>	<p>CalSTA, CalEPA, CNRA, CARB, Caltrans, CEC, GO-Biz</p>	<p><b>Consistent.</b> This measure would apply to all trucks accessing the Project site, this may include existing trucks or new trucks that are part of the statewide goods movement sector. The Project would not obstruct or interfere with agency efforts to Improve freight system efficiency.</p>
<p>Deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.</p>	<p>Caltrans, CEC, GO-Biz</p>	<p><b>Consistent.</b> The Project would not obstruct or interfere with agency efforts to deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.</p>
<p>Adopt a Low Carbon Fuel Standard with a Carbon Intensity reduction of 18%.</p>	<p>CARB</p>	<p><b>Consistent.</b> When adopted, this measure would apply to all fuel purchased and used by the Project in the state. The Project would not obstruct or interfere</p>

Action	Responsible Parties	Consistency
		with agency efforts to adopt a Low Carbon Fuel Standard with a Carbon Intensity reduction of 18%.
<b>Implement the Short-Lived Climate Pollutant Strategy (SLPS) by 2030</b>		
40% reduction in methane and hydrofluorocarbon emissions below 2013 levels.	CARB, CalRecycle, CDFA, California State Water Resource Control Board (SWRCB), Local Air Districts	<b>Consistent.</b> The Project would be required to comply with any applicable measures that may be adopted for the purposes of reducing SLPS emissions. The Project would not obstruct or interfere agency efforts to reduce SLPS emissions since it would be required to comply with any applicable regulatory measures.
50% reduction in black carbon emissions below 2013 levels.		
Develop regulations and programs to support organic waste landfill reduction goals in the SLCP and SB 1383.	CARB, CalRecycle, CDFA, SWRCB, Local Air Districts	<b>Consistent.</b> The Project would implement waste reduction and recycling measures consistent with State and City of Ontario requirements. The Project would not obstruct or interfere agency efforts to support organic waste landfill reduction goals in the SLCP and SB 1383.
Implement the post-2020 Cap-and-Trade Program with declining annual caps.	CARB	<b>Consistent.</b> The Project would be required to comply with any applicable Cap-and-Trade Program provisions. The Project would not obstruct or interfere agency efforts to implement the post-2020 Cap-and-Trade Program.
<b>By 2018, develop Integrated Natural and Working Lands Implementation Plan to secure California's land base as a net carbon sink</b>		
Protect land from conversion through conservation easements and other incentives.	CNRA, Departments Within CDFA, CalEPA, CARB	<b>Consistent.</b> The Project would not obstruct or interfere agency efforts to protect land from conversion through conservation easements and other incentives. The Project site is not targeted for conservation in any local or State conservation plan.
Increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity		<b>Consistent.</b> The Project site is currently developed and does not comprise an area that would effectively provide for carbon sequestration. The Project would not obstruct or interfere agency efforts to increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity.
		<b>Consistent.</b> The Project is proposed as a tilt-up industrial manufacturing and warehouse use with building materials

Action	Responsible Parties	Consistency
Utilize wood and agricultural products to increase the amount of carbon stored in the natural and built environments		primarily comprised of concrete. However, where appropriate, the Project design does not preclude the incorporation of wood or wood products. The Project would not obstruct or interfere agency efforts to encourage use of wood and agricultural products to increase the amount of carbon stored in the natural and built environments.
Establish scenario projections to serve as the foundation for the Implementation Plan		<b>Consistent.</b> The Project would not obstruct or interfere agency efforts to establish scenario projections to serve as the foundation for the Implementation Plan.
Establish a carbon accounting framework for natural and working lands as described in SB 859	CARB	<b>Consistent.</b> The Project would not obstruct or interfere with agency efforts to establish a carbon accounting framework for natural and working lands as described in SB 859.
Implement Forest Carbon Plan	CNRA, California Department of Forestry and Fire Protection (CAL FIRE), CalEPA and Departments Within	<b>Consistent.</b> The Project would not obstruct or interfere agency efforts to implement the Forest Carbon Plan.
Identify and expand funding and financing mechanisms to support GHG reductions across all sectors.	State Agencies & Local Agencies	<b>Consistent.</b> The Project would not obstruct or interfere agency efforts to identify and expand funding and financing mechanisms to support GHG reductions across all sectors.

As shown above, the Project would not conflict with any of the 2017 Scoping Plan elements as any regulations adopted would apply directly or indirectly to the Project. Further, recent studies show that the State's existing and proposed regulatory framework will allow the State to reduce its GHG emissions level to 40% below 1990 levels by 2030 (55).

***The Project would not have the potential to conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.***

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## 5 CERTIFICATIONS

The contents of this GHG study report represent an accurate depiction of the GHG impacts associated with the proposed 5355 East Airport Drive Project. The information contained in this GHG report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at [hqureshi@urbanxroads.com](mailto:hqureshi@urbanxroads.com).

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Master of Science in Environmental Studies  
California State University, Fullerton • May 2010

Bachelor of Arts in Environmental Analysis and Design  
University of California, Irvine • June, 2006

### PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners  
AWMA – Air and Waste Management Association  
ASTM – American Society for Testing and Materials

### PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June 2011  
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April 2008  
Principles of Ambient Air Monitoring – California Air Resources Board • August 2007  
AB2588 Regulatory Standards – Trinity Consultants • November 2006  
Air Dispersion Modeling – Lakes Environmental • June 2006

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**APPENDIX 3.1:**

**CALEEMOD EXISTING OPERATIONAL EMISSIONS MODEL OUTPUTS**

# IE Distribution Center #14 (Existing Passenger Car Operations) Detailed Report

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# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	IE Distribution Center #14 (Existing Passenger Car Operations)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	20.8
Location	34.06334566920109, -117.53410603073728
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5288
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	41.8	1000sqft	0.96	41,780	0.00	0.00	—	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

## 2. Emissions Summary

### 2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.29	2.16	0.98	12.8	0.02	0.04	0.80	0.85	0.04	0.14	0.18	39.7	3,803	3,842	4.23	0.11	1,122	5,104
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.92	1.82	1.03	8.94	0.02	0.04	0.80	0.84	0.04	0.14	0.18	39.7	3,615	3,655	4.24	0.12	1,114	4,909
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.90	1.80	0.89	8.16	0.02	0.04	0.59	0.63	0.04	0.10	0.14	39.7	3,086	3,126	4.22	0.10	1,116	4,378
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.16	0.33	0.16	1.49	< 0.005	0.01	0.11	0.11	0.01	0.02	0.03	6.57	511	518	0.70	0.02	185	725

### 2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Mobile	0.92	0.84	0.54	10.7	0.02	0.01	0.80	0.81	0.01	0.14	0.15	—	2,242	2,242	0.08	0.05	8.87	2,269
Area	0.32	1.30	0.02	1.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.47	7.47	< 0.005	< 0.005	—	7.69
Energy	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,490	1,490	0.14	0.01	—	1,498
Water	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Waste	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Total	1.29	2.16	0.98	12.8	0.02	0.04	0.80	0.85	0.04	0.14	0.18	39.7	3,803	3,842	4.23	0.11	1,122	5,104
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.87	0.79	0.60	8.58	0.02	0.01	0.80	0.81	0.01	0.14	0.15	—	2,062	2,062	0.08	0.06	0.23	2,081
Area	—	1.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,490	1,490	0.14	0.01	—	1,498
Water	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Waste	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Total	0.92	1.82	1.03	8.94	0.02	0.04	0.80	0.84	0.04	0.14	0.18	39.7	3,615	3,655	4.24	0.12	1,114	4,909
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.63	0.57	0.45	6.56	0.02	0.01	0.59	0.59	0.01	0.10	0.11	—	1,528	1,528	0.06	0.04	2.80	1,545
Area	0.22	1.20	0.01	1.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.12	5.12	< 0.005	< 0.005	—	5.27
Energy	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,490	1,490	0.14	0.01	—	1,498
Water	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Waste	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Total	0.90	1.80	0.89	8.16	0.02	0.04	0.59	0.63	0.04	0.10	0.14	39.7	3,086	3,126	4.22	0.10	1,116	4,378
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.12	0.10	0.08	1.20	< 0.005	< 0.005	0.11	0.11	< 0.005	0.02	0.02	—	253	253	0.01	0.01	0.46	256
Area	0.04	0.22	< 0.005	0.23	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.87

Energy	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	247	247	0.02	< 0.005	—	248
Water	—	—	—	—	—	—	—	—	—	—	—	3.07	10.4	13.5	0.32	0.01	—	23.6
Waste	—	—	—	—	—	—	—	—	—	—	—	3.50	0.00	3.50	0.35	0.00	—	12.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	184	184
Total	0.16	0.33	0.16	1.49	< 0.005	0.01	0.11	0.11	0.01	0.02	0.03	6.57	511	518	0.70	0.02	185	725

## 4. Operations Emissions Details

### 4.1. Mobile Emissions by Land Use

#### 4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.92	0.84	0.54	10.7	0.02	0.01	0.10	0.11	0.01	0.03	0.04	—	2,242	2,242	0.08	0.05	8.87	2,269
Total	0.92	0.84	0.54	10.7	0.02	0.01	0.10	0.11	0.01	0.03	0.04	—	2,242	2,242	0.08	0.05	8.87	2,269
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.87	0.79	0.60	8.58	0.02	0.01	0.10	0.11	0.01	0.03	0.04	—	2,062	2,062	0.08	0.06	0.23	2,081
Total	0.87	0.79	0.60	8.58	0.02	0.01	0.10	0.11	0.01	0.03	0.04	—	2,062	2,062	0.08	0.06	0.23	2,081

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.12	0.10	0.08	1.20	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	—	253	253	0.01	0.01	0.46	256
Total	0.12	0.10	0.08	1.20	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	—	253	253	0.01	0.01	0.46	256

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	981	981	0.09	0.01	—	987
Total	—	—	—	—	—	—	—	—	—	—	—	—	981	981	0.09	0.01	—	987
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	981	981	0.09	0.01	—	987
Total	—	—	—	—	—	—	—	—	—	—	—	—	981	981	0.09	0.01	—	987
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	—	—	—	—	—	—	—	—	—	—	—	—	—	162	162	0.02	< 0.005	—	163
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	162	162	0.02	< 0.005	—	163

#### 4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	509	509	0.05	< 0.005	—	511
Total	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	509	509	0.05	< 0.005	—	511
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	509	509	0.05	< 0.005	—	511
Total	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	509	509	0.05	< 0.005	—	511
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	84.3	84.3	0.01	< 0.005	—	84.5
Total	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	84.3	84.3	0.01	< 0.005	—	84.5

### 4.3. Area Emissions by Source

#### 4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.89	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.32	0.30	0.02	1.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.47	7.47	< 0.005	< 0.005	—	7.69
Total	0.32	1.30	0.02	1.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.47	7.47	< 0.005	< 0.005	—	7.69
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.89	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	1.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



Architectural	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.04	0.04	< 0.005	0.23	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.87
Total	0.04	0.22	< 0.005	0.23	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.87

#### 4.4. Water Emissions by Land Use

##### 4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Total	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Total	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	—	—	—	—	—	—	—	—	—	—	—	3.07	10.4	13.5	0.32	0.01	—	23.6
Total	—	—	—	—	—	—	—	—	—	—	—	3.07	10.4	13.5	0.32	0.01	—	23.6

#### 4.5. Waste Emissions by Land Use

##### 4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Total	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Total	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	3.50	0.00	3.50	0.35	0.00	—	12.3

Total	—	—	—	—	—	—	—	—	—	—	—	—	3.50	0.00	3.50	0.35	0.00	—	12.3
-------	---	---	---	---	---	---	---	---	---	---	---	---	------	------	------	------	------	---	------

## 4.6. Refrigerant Emissions by Land Use

### 4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	184	184
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	184	184

### 4.7. Offroad Emissions By Equipment Type

#### 4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.8. Stationary Emissions By Equipment Type

#### 4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.9. User Defined Emissions By Equipment Type

##### 4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.10. Soil Carbon Accumulation By Vegetation Type

##### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 5. Activity Data

### 5.9. Operational Mobile Sources

#### 5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	207	17.5	7.02	55,311	3,007	254	102	802,453

### 5.10. Operational Area Sources

#### 5.10.1. Hearths

##### 5.10.1.1. Unmitigated

#### 5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	62,670	20,890	—

#### 5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

### 5.11. Operational Energy Consumption

#### 5.11.1. Unmitigated



Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	1,027,373	349	0.0330	0.0040	794,266

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	9,661,625	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	39.3	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Unrefrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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## 6. Climate Risk Detailed Report

### 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.1	annual days of extreme heat
Extreme Precipitation	5.30	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

### 6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A

Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

### 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

### 6.4. Climate Risk Reduction Measures

## 7. Health and Equity Details

## 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	95.7
AQ-DPM	96.6
Drinking Water	93.3
Lead Risk Housing	8.61
Pesticides	0.00
Toxic Releases	78.9
Traffic	89.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	30.9
Haz Waste Facilities/Generators	78.8
Impaired Water Bodies	0.00
Solid Waste	70.4
Sensitive Population	—
Asthma	47.3
Cardio-vascular	67.3
Low Birth Weights	57.1
Socioeconomic Factor Indicators	—
Education	40.5
Housing	32.3
Linguistic	18.1
Poverty	23.9

Unemployment	53.9
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## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	76.78686
Employed	63.51854228
Education	—
Bachelor's or higher	44.59129988
High school enrollment	3.977928911
Preschool enrollment	15.60374695
Transportation	—
Auto Access	88.68215065
Active commuting	10.11163865
Social	—
2-parent households	11.86962659
Voting	50.91749006
Neighborhood	—
Alcohol availability	69.3314513
Park access	61.63223406
Retail density	69.31861927
Supermarket access	2.399589375
Tree canopy	29.69331451
Housing	—
Homeownership	78.81432054
Housing habitability	80.20017965

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Low-inc homeowner severe housing cost burden	88.74631079
Low-inc renter severe housing cost burden	37.86731682
Uncrowded housing	60.77248813
Health Outcomes	—
Insured adults	67.2783267
Arthritis	74.6
Asthma ER Admissions	54.3
High Blood Pressure	79.9
Cancer (excluding skin)	68.9
Asthma	49.0
Coronary Heart Disease	85.5
Chronic Obstructive Pulmonary Disease	74.0
Diagnosed Diabetes	64.3
Life Expectancy at Birth	52.5
Cognitively Disabled	87.2
Physically Disabled	77.4
Heart Attack ER Admissions	10.4
Mental Health Not Good	50.5
Chronic Kidney Disease	79.8
Obesity	43.5
Pedestrian Injuries	99.0
Physical Health Not Good	58.2
Stroke	80.6
Health Risk Behaviors	—
Binge Drinking	19.3
Current Smoker	53.5
No Leisure Time for Physical Activity	61.3

Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	32.5
Elderly	84.2
English Speaking	91.4
Foreign-born	35.9
Outdoor Workers	45.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	76.5
Traffic Density	89.2
Traffic Access	46.3
Other Indices	—
Hardship	44.0
Other Decision Support	—
2016 Voting	74.5

### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	65.0
Healthy Places Index Score for Project Location (b)	42.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.



### 7.4. Health & Equity Measures

No Health & Equity Measures selected.

### 7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

## 8. User Changes to Default Data

Screen	Justification
Operations: Vehicle Data	Trip rates based on existing activities
Operations: Fleet Mix	Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, & MCY)
Operations: Energy Use	Electricity usage based on electricity bills provided by Applicant

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## 8. User Changes to Default Data

# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	IE Distribution Center #14 (Existing Truck Operations)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	20.8
Location	34.06334566920109, -117.53410603073728
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5288
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	41.8	1000sqft	0.96	41,780	0.00	0.00	—	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

## 2. Emissions Summary

### 2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.30	1.51	9.14	7.26	0.07	0.15	1.11	1.27	0.15	0.27	0.41	39.7	8,807	8,847	4.87	1.17	1,133	10,451
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.96	1.20	9.51	5.46	0.07	0.15	1.11	1.26	0.14	0.27	0.41	39.7	8,802	8,842	4.87	1.17	1,114	10,427
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.94	1.36	7.14	5.32	0.05	0.12	0.81	0.93	0.12	0.20	0.31	39.7	6,858	6,897	4.68	0.87	1,120	8,395
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.17	0.25	1.30	0.97	0.01	0.02	0.15	0.17	0.02	0.04	0.06	6.57	1,135	1,142	0.78	0.14	185	1,390

### 2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



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Mobile	0.93	0.19	8.70	5.08	0.06	0.12	1.11	1.23	0.11	0.27	0.38	—	7,247	7,247	0.72	1.11	19.2	7,616
Area	0.32	1.30	0.02	1.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.47	7.47	< 0.005	< 0.005	—	7.69
Energy	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,490	1,490	0.14	0.01	—	1,498
Water	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Waste	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Total	1.30	1.51	9.14	7.26	0.07	0.15	1.11	1.27	0.15	0.27	0.41	39.7	8,807	8,847	4.87	1.17	1,133	10,451
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.92	0.18	9.08	5.10	0.06	0.12	1.11	1.23	0.11	0.27	0.38	—	7,249	7,249	0.72	1.12	0.50	7,600
Area	—	1.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,490	1,490	0.14	0.01	—	1,498
Water	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Waste	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Total	0.96	1.20	9.51	5.46	0.07	0.15	1.11	1.26	0.14	0.27	0.41	39.7	8,802	8,842	4.87	1.17	1,114	10,427
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.67	0.13	6.71	3.72	0.05	0.08	0.81	0.90	0.08	0.20	0.28	—	5,299	5,299	0.52	0.82	6.07	5,562
Area	0.22	1.20	0.01	1.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.12	5.12	< 0.005	< 0.005	—	5.27
Energy	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,490	1,490	0.14	0.01	—	1,498
Water	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Waste	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Total	0.94	1.36	7.14	5.32	0.05	0.12	0.81	0.93	0.12	0.20	0.31	39.7	6,858	6,897	4.68	0.87	1,120	8,395
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.12	0.02	1.22	0.68	0.01	0.02	0.15	0.16	0.01	0.04	0.05	—	877	877	0.09	0.14	1.01	921
Area	0.04	0.22	< 0.005	0.23	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.87

Energy	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	247	247	0.02	< 0.005	—	248
Water	—	—	—	—	—	—	—	—	—	—	—	3.07	10.4	13.5	0.32	0.01	—	23.6
Waste	—	—	—	—	—	—	—	—	—	—	—	3.50	0.00	3.50	0.35	0.00	—	12.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	184	184
Total	0.17	0.25	1.30	0.97	0.01	0.02	0.15	0.17	0.02	0.04	0.06	6.57	1,135	1,142	0.78	0.14	185	1,390

## 4. Operations Emissions Details

### 4.1. Mobile Emissions by Land Use

#### 4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.93	0.19	8.70	5.08	0.06	0.12	0.57	0.69	0.11	0.18	0.30	—	7,247	7,247	0.72	1.11	19.2	7,616
Total	0.93	0.19	8.70	5.08	0.06	0.12	0.57	0.69	0.11	0.18	0.30	—	7,247	7,247	0.72	1.11	19.2	7,616
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.92	0.18	9.08	5.10	0.06	0.12	0.57	0.69	0.11	0.18	0.30	—	7,249	7,249	0.72	1.12	0.50	7,600
Total	0.92	0.18	9.08	5.10	0.06	0.12	0.57	0.69	0.11	0.18	0.30	—	7,249	7,249	0.72	1.12	0.50	7,600

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.12	0.02	1.22	0.68	0.01	0.02	0.08	0.09	0.01	0.02	0.04	—	877	877	0.09	0.14	1.01	921
Total	0.12	0.02	1.22	0.68	0.01	0.02	0.08	0.09	0.01	0.02	0.04	—	877	877	0.09	0.14	1.01	921

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	981	981	0.09	0.01	—	987
Total	—	—	—	—	—	—	—	—	—	—	—	—	981	981	0.09	0.01	—	987
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	981	981	0.09	0.01	—	987
Total	—	—	—	—	—	—	—	—	—	—	—	—	981	981	0.09	0.01	—	987
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	—	—	—	—	—	—	—	—	—	—	—	—	162	162	0.02	< 0.005	—	163
Total	—	—	—	—	—	—	—	—	—	—	—	—	162	162	0.02	< 0.005	—	163

### 4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	509	509	0.05	< 0.005	—	511
Total	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	509	509	0.05	< 0.005	—	511
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	509	509	0.05	< 0.005	—	511
Total	0.05	0.02	0.43	0.36	< 0.005	0.03	—	0.03	0.03	—	0.03	—	509	509	0.05	< 0.005	—	511
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	84.3	84.3	0.01	< 0.005	—	84.5
Total	0.01	< 0.005	0.08	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	84.3	84.3	0.01	< 0.005	—	84.5

### 4.3. Area Emissions by Source

#### 4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.89	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.32	0.30	0.02	1.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.47	7.47	< 0.005	< 0.005	—	7.69
Total	0.32	1.30	0.02	1.82	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.47	7.47	< 0.005	< 0.005	—	7.69
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.89	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	1.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.04	0.04	< 0.005	0.23	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.87
Total	0.04	0.22	< 0.005	0.23	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.85	0.85	< 0.005	< 0.005	—	0.87

#### 4.4. Water Emissions by Land Use

##### 4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Total	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Total	—	—	—	—	—	—	—	—	—	—	—	18.5	62.8	81.3	1.90	0.05	—	143
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	—	—	—	—	—	—	—	—	—	—	—	3.07	10.4	13.5	0.32	0.01	—	23.6
Total	—	—	—	—	—	—	—	—	—	—	—	3.07	10.4	13.5	0.32	0.01	—	23.6

#### 4.5. Waste Emissions by Land Use

##### 4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Total	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Total	—	—	—	—	—	—	—	—	—	—	—	21.2	0.00	21.2	2.12	0.00	—	74.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	3.50	0.00	3.50	0.35	0.00	—	12.3

Total	—	—	—	—	—	—	—	—	—	—	—	3.50	0.00	3.50	0.35	0.00	—	12.3
-------	---	---	---	---	---	---	---	---	---	---	---	------	------	------	------	------	---	------

## 4.6. Refrigerant Emissions by Land Use

### 4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,113	1,113
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	184	184
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	184	184



### 4.7. Offroad Emissions By Equipment Type

#### 4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.8. Stationary Emissions By Equipment Type

#### 4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.9. User Defined Emissions By Equipment Type

##### 4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.10. Soil Carbon Accumulation By Vegetation Type

##### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 5. Activity Data

### 5.9. Operational Mobile Sources

#### 5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	106	8.93	3.57	28,184	2,337	198	79.1	623,606

### 5.10. Operational Area Sources

#### 5.10.1. Hearths

##### 5.10.1.1. Unmitigated

#### 5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	62,670	20,890	—

#### 5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

### 5.11. Operational Energy Consumption

#### 5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	1,027,373	349	0.0330	0.0040	794,266

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	9,661,625	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	39.3	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Unrefrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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## 5.16. Stationary Sources

### 5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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### 5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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## 5.17. User Defined

Equipment Type	Fuel Type
—	—

## 5.18. Vegetation

### 5.18.1. Land Use Change

#### 5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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### 5.18.1. Biomass Cover Type

#### 5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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### 5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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## 6. Climate Risk Detailed Report

### 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.1	annual days of extreme heat
Extreme Precipitation	5.30	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

### 6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A



Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

### 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

### 6.4. Climate Risk Reduction Measures

## 7. Health and Equity Details

## 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	95.7
AQ-DPM	96.6
Drinking Water	93.3
Lead Risk Housing	8.61
Pesticides	0.00
Toxic Releases	78.9
Traffic	89.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	30.9
Haz Waste Facilities/Generators	78.8
Impaired Water Bodies	0.00
Solid Waste	70.4
Sensitive Population	—
Asthma	47.3
Cardio-vascular	67.3
Low Birth Weights	57.1
Socioeconomic Factor Indicators	—
Education	40.5
Housing	32.3
Linguistic	18.1
Poverty	23.9

Unemployment	53.9
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## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	76.78686
Employed	63.51854228
Education	—
Bachelor's or higher	44.59129988
High school enrollment	3.977928911
Preschool enrollment	15.60374695
Transportation	—
Auto Access	88.68215065
Active commuting	10.11163865
Social	—
2-parent households	11.86962659
Voting	50.91749006
Neighborhood	—
Alcohol availability	69.3314513
Park access	61.63223406
Retail density	69.31861927
Supermarket access	2.399589375
Tree canopy	29.69331451
Housing	—
Homeownership	78.81432054
Housing habitability	80.20017965

## IE Distribution Center #14 (Existing Truck Operations) Detailed Report, 8/18/2022

Low-inc homeowner severe housing cost burden	88.74631079
Low-inc renter severe housing cost burden	37.86731682
Uncrowded housing	60.77248813
Health Outcomes	—
Insured adults	67.2783267
Arthritis	74.6
Asthma ER Admissions	54.3
High Blood Pressure	79.9
Cancer (excluding skin)	68.9
Asthma	49.0
Coronary Heart Disease	85.5
Chronic Obstructive Pulmonary Disease	74.0
Diagnosed Diabetes	64.3
Life Expectancy at Birth	52.5
Cognitively Disabled	87.2
Physically Disabled	77.4
Heart Attack ER Admissions	10.4
Mental Health Not Good	50.5
Chronic Kidney Disease	79.8
Obesity	43.5
Pedestrian Injuries	99.0
Physical Health Not Good	58.2
Stroke	80.6
Health Risk Behaviors	—
Binge Drinking	19.3
Current Smoker	53.5
No Leisure Time for Physical Activity	61.3

Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	32.5
Elderly	84.2
English Speaking	91.4
Foreign-born	35.9
Outdoor Workers	45.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	76.5
Traffic Density	89.2
Traffic Access	46.3
Other Indices	—
Hardship	44.0
Other Decision Support	—
2016 Voting	74.5

### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	65.0
Healthy Places Index Score for Project Location (b)	42.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

### 7.4. Health & Equity Measures

No Health & Equity Measures selected.

### 7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

## 8. User Changes to Default Data

Screen	Justification
Operations: Vehicle Data	Trip rates based on existing activities
Operations: Fleet Mix	Truck Mix based on SCAQMD recommended truck mix
Operations: Energy Use	Electricity usage based on bills provided by the Applicant

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**APPENDIX 4.1:**

**CALEEMOD PROJECT CONSTRUCTION EMISSIONS MODEL OUTPUTS**



# IE Distribution Center #14 (Construction) Detailed Report

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# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	IE Distribution Center #14 (Construction)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	20.8
Location	34.06334566920109, -117.53410603073728
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5288
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	243	1000sqft	7.08	243,303	65,274	0.00	—	—
Refrigerated Warehouse-No Rail	27.0	1000sqft	0.79	27,034	7,253	0.00	—	—

Parking Lot	299	Space	1.53	0.00	0.00	0.00	—	—
Other Asphalt Surfaces	161	1000sqft	3.68	0.00	0.00	0.00	—	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

## 2. Emissions Summary

### 2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.13	47.2	39.6	71.8	0.13	0.38	9.62	9.95	0.36	4.00	4.32	—	15,836	15,836	0.86	0.60	10.9	16,044
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.08	47.1	30.4	53.5	0.07	0.38	2.20	2.58	0.36	0.52	0.89	—	9,589	9,589	0.43	0.25	0.28	9,674
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.67	4.08	10.5	18.5	0.03	0.13	1.31	1.44	0.12	0.45	0.57	—	3,729	3,729	0.19	0.12	1.43	3,770
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.12	0.74	1.92	3.37	0.01	0.02	0.24	0.26	0.02	0.08	0.10	—	617	617	0.03	0.02	0.24	624

### 2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	2.13	1.77	39.6	71.8	0.13	0.33	9.62	9.95	0.32	4.00	4.32	—	15,836	15,836	0.86	0.60	9.37	16,044
2024	2.12	47.2	30.2	56.6	0.07	0.38	2.20	2.58	0.36	0.52	0.89	—	9,771	9,771	0.43	0.25	10.9	9,867
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.65	1.48	21.7	39.8	0.06	0.26	1.70	1.96	0.25	0.41	0.65	—	7,437	7,437	0.35	0.22	0.24	7,510
2024	2.08	47.1	30.4	53.5	0.07	0.38	2.20	2.58	0.36	0.52	0.89	—	9,589	9,589	0.43	0.25	0.28	9,674
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.67	0.59	10.5	18.5	0.03	0.13	1.31	1.44	0.12	0.45	0.57	—	3,729	3,729	0.19	0.12	1.43	3,770
2024	0.38	4.08	5.50	9.86	0.01	0.07	0.40	0.46	0.06	0.09	0.16	—	1,790	1,790	0.08	0.05	0.88	1,807
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.12	0.11	1.92	3.37	0.01	0.02	0.24	0.26	0.02	0.08	0.10	—	617	617	0.03	0.02	0.24	624
2024	0.07	0.74	1.00	1.80	< 0.005	0.01	0.07	0.08	0.01	0.02	0.03	—	296	296	0.01	0.01	0.14	299

### 3. Construction Emissions Details

#### 3.1. Demolition (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.54	0.51	12.7	18.7	0.03	0.23	—	0.23	0.22	—	0.22	—	3,529	3,529	0.14	0.03	—	3,541

Demolition	—	—	—	—	—	—	0.45	0.45	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	2.09	3.07	0.01	0.04	—	0.04	0.04	—	0.04	—	580	580	0.02	< 0.005	—	582
Demolition	—	—	—	—	—	—	0.07	0.07	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.38	0.56	< 0.005	0.01	—	0.01	0.01	—	0.01	—	96.0	96.0	< 0.005	< 0.005	—	96.4
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.10	1.67	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	264	264	0.01	0.01	1.13	268
Vendor	0.04	0.01	0.38	0.20	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	317	317	0.03	0.05	0.87	332
Hauling	0.03	< 0.005	0.27	0.15	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	214	214	0.02	0.03	0.45	226
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



Worker	0.02	0.02	0.02	0.22	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	40.4	40.4	< 0.005	< 0.005	0.08	41.0
Vendor	0.01	< 0.005	0.06	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	52.1	52.1	< 0.005	0.01	0.06	54.6
Hauling	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	35.2	35.2	< 0.005	0.01	0.03	37.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	6.69	6.69	< 0.005	< 0.005	0.01	6.78
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.63	8.63	< 0.005	< 0.005	0.01	9.03
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.84	5.84	< 0.005	< 0.005	0.01	6.13

### 3.3. Site Preparation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.68	0.68	15.7	30.0	0.05	0.10	—	0.10	0.10	—	0.10	—	5,530	5,530	0.22	0.04	—	5,549
Dust From Material Movement	—	—	—	—	—	—	5.66	5.66	—	2.69	2.69	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.06	1.29	2.46	< 0.005	0.01	—	0.01	0.01	—	0.01	—	455	455	0.02	< 0.005	—	456

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Dust From Material Movement:	—	—	—	—	—	—	0.47	0.47	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.24	0.45	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	75.2	75.2	< 0.005	< 0.005	—	75.5
Dust From Material Movement:	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.10	1.67	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	264	264	0.01	0.01	1.13	268
Vendor	0.02	< 0.005	0.19	0.10	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	158	158	0.01	0.02	0.44	166
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	20.2	20.2	< 0.005	< 0.005	0.04	20.5
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.0	13.0	< 0.005	< 0.005	0.02	13.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	3.34	3.34	< 0.005	< 0.005	0.01	3.39
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.16	2.16	< 0.005	< 0.005	< 0.005	2.26

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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### 3.5. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e	
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.82	0.82	19.9	36.2	0.06	0.18	—	0.18	0.18	—	0.18	—	6,715	6,715	0.27	0.05	—	6,738	
Dust From Material Movement	—	—	—	—	—	—	2.67	2.67	—	0.98	0.98	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.07	1.64	2.97	0.01	0.02	—	0.02	0.01	—	0.01	—	552	552	0.02	< 0.005	—	554	
Dust From Material Movement	—	—	—	—	—	—	0.22	0.22	—	0.08	0.08	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.30	0.54	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	91.4	91.4	< 0.005	< 0.005	—	91.7	

Dust From Material Movement:	—	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.11	1.85	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	294	294	0.01	0.01	1.26	298
Vendor	0.02	< 0.005	0.19	0.10	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	158	158	0.01	0.02	0.44	166
Hauling	0.37	0.06	3.43	1.91	0.02	0.03	0.20	0.23	0.03	0.07	0.10	—	2,716	2,716	0.31	0.43	5.65	2,857
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	22.4	22.4	< 0.005	< 0.005	0.04	22.8
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.0	13.0	< 0.005	< 0.005	0.02	13.6
Hauling	0.03	< 0.005	0.30	0.16	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	223	223	0.03	0.04	0.20	235
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	3.72	3.72	< 0.005	< 0.005	0.01	3.77
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.16	2.16	< 0.005	< 0.005	< 0.005	2.26
Hauling	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	37.0	37.0	< 0.005	0.01	0.03	38.8

### 3.7. Building Construction (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.87	20.0	31.4	0.05	0.25	—	0.25	0.23	—	0.23	—	5,110	5,110	0.21	0.04	—	5,128
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.87	20.0	31.4	0.05	0.25	—	0.25	0.23	—	0.23	—	5,110	5,110	0.21	0.04	—	5,128
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.20	4.61	7.24	0.01	0.06	—	0.06	0.05	—	0.05	—	1,180	1,180	0.05	0.01	—	1,184
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.84	1.32	< 0.005	0.01	—	0.01	0.01	—	0.01	—	195	195	0.01	< 0.005	—	196
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.69	0.63	0.60	10.6	0.00	0.00	0.09	0.09	0.00	0.00	0.00	—	1,675	1,675	0.07	0.06	7.18	1,700
Vendor	0.09	0.02	0.94	0.51	0.01	0.01	0.04	0.06	0.01	0.02	0.03	—	792	792	0.07	0.12	2.19	831
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.65	0.59	0.70	7.94	0.00	0.00	0.09	0.09	0.00	0.00	0.00	—	1,534	1,534	0.07	0.06	0.19	1,553
Vendor	0.09	0.02	0.98	0.51	0.01	0.01	0.04	0.06	0.01	0.02	0.03	—	793	793	0.07	0.12	0.06	829
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	0.16	1.94	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	359	359	0.02	0.01	0.72	364
Vendor	0.02	< 0.005	0.23	0.12	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	183	183	0.02	0.03	0.22	192
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.03	0.35	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	59.5	59.5	< 0.005	< 0.005	0.12	60.3
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	30.3	30.3	< 0.005	< 0.005	0.04	31.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

### 3.9. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.87	20.0	31.4	0.05	0.25	—	0.25	0.23	—	0.23	—	5,110	5,110	0.21	0.04	—	5,127
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Off-Road Equipment	0.91	0.87	20.0	31.4	0.05	0.25	—	0.25	0.23	—	0.23	—	5,110	5,110	0.21	0.04	—	5,127
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	0.18	4.14	6.51	0.01	0.05	—	0.05	0.05	—	0.05	—	1,060	1,060	0.04	0.01	—	1,064
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.76	1.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	175	175	0.01	< 0.005	—	176
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.65	0.60	0.55	9.64	0.00	0.00	0.09	0.09	0.00	0.00	0.00	—	1,641	1,641	0.07	0.06	6.56	1,666
Vendor	0.08	0.02	0.90	0.48	0.01	0.01	0.04	0.06	0.01	0.02	0.03	—	784	784	0.06	0.12	2.19	822
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.62	0.56	0.65	7.29	0.00	0.00	0.09	0.09	0.00	0.00	0.00	—	1,504	1,504	0.07	0.06	0.17	1,523
Vendor	0.08	0.02	0.94	0.49	0.01	0.01	0.04	0.06	0.01	0.02	0.03	—	784	784	0.06	0.12	0.06	821
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.14	1.59	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	316	316	0.01	0.01	0.59	321
Vendor	0.02	< 0.005	0.20	0.10	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	163	163	0.01	0.02	0.20	170

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.29	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	52.4	52.4	< 0.005	< 0.005	0.10	53.1	
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	26.9	26.9	< 0.005	< 0.005	0.03	28.2	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	

### 3.11. Paving (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	7.21	10.6	0.01	0.09	—	0.09	0.08	—	0.08	—	1,512	1,512	0.06	0.01	—	1,517
Paving	—	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.23	7.21	10.6	0.01	0.09	—	0.09	0.08	—	0.08	—	1,512	1,512	0.06	0.01	—	1,517
Paving	—	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.89	1.31	< 0.005	0.01	—	0.01	0.01	—	0.01	—	186	186	0.01	< 0.005	—	187
Paving	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



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Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.16	0.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	30.9	30.9	< 0.005	< 0.005	—	31.0	
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.09	0.08	0.07	1.27	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	216	216	0.01	0.01	0.86	219	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.08	0.07	0.09	0.96	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	198	198	0.01	0.01	0.02	200	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	0.01	0.01	0.01	0.12	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	24.7	24.7	< 0.005	< 0.005	0.05	25.1	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	4.10	4.10	< 0.005	< 0.005	0.01	4.15	
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	

### 3.13. Architectural Coating (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	1.43	1.28	< 0.005	0.04	—	0.04	0.04	—	0.04	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	44.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	1.43	1.28	< 0.005	0.04	—	0.04	0.04	—	0.04	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	44.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.12	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.6	14.6	< 0.005	< 0.005	—	14.7
Architectural Coatings	—	3.69	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

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Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.42	2.42	< 0.005	< 0.005	—	2.43
Architectural Coatings	—	0.67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.11	1.95	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	331	331	0.01	0.01	1.32	336
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.11	0.13	1.47	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	303	303	0.01	0.01	0.03	307
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	25.3	25.3	< 0.005	< 0.005	0.05	25.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	4.19	4.19	< 0.005	< 0.005	0.01	4.25
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

## 4. Operations Emissions Details

### 4.10. Soil Carbon Accumulation By Vegetation Type

#### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 5. Activity Data

### 5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	5/2/2023	7/24/2023	5.00	60.0	—
Site Preparation	Site Preparation	7/25/2023	9/4/2023	5.00	30.0	—
Grading	Grading	7/25/2023	9/4/2023	5.00	30.0	—
Building Construction	Building Construction	9/5/2023	4/15/2024	5.00	160	—
Paving	Paving	2/13/2024	4/15/2024	5.00	45.0	—
Architectural Coating	Architectural Coating	3/5/2024	4/15/2024	5.00	30.0	—

### 5.2. Off-Road Equipment

#### 5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Interim	2.00	8.00	367	0.40

Demolition	Excavators	Diesel	Tier 4 Interim	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Interim	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Interim	3.00	8.00	367	0.40
Grading	Graders	Diesel	Tier 4 Interim	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Interim	2.00	8.00	36.0	0.38
Grading	Scrapers	Diesel	Tier 4 Interim	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 4 Interim	5.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Tier 4 Interim	2.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Interim	2.00	8.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Interim	2.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Tier 4 Interim	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Interim	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Interim	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Interim	1.00	8.00	37.0	0.48
Site Preparation	Crawler Tractors	Diesel	Tier 4 Interim	4.00	8.00	87.0	0.43
Grading	Crawler Tractors	Diesel	Tier 4 Interim	2.00	8.00	87.0	0.43
Building Construction	Crawler Tractors	Diesel	Tier 4 Interim	5.00	8.00	87.0	0.43
Demolition	Generator Sets	Diesel	Tier 4 Interim	1.00	8.00	14.0	0.74

## 5.3. Construction Vehicles

### 5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	18.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	10.0	10.2	HHDT,MHDT

Demolition	Hauling	3.00	20.0	HHDT
Demolition	Onsite truck	0.00	0.00	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	18.0	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	5.00	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	0.00	0.00	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	5.00	10.2	HHDT,MHDT
Grading	Hauling	38.0	20.0	HHDT
Grading	Onsite truck	0.00	0.00	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	114	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	25.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	0.00	0.00	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	0.00	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	0.00	0.00	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	23.0	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	0.00	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	0.00	0.00	HHDT



## 5.4. Vehicles

### 5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

## 5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	415,727	138,576	13,629

## 5.6. Dust Mitigation

### 5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	1,922	—
Site Preparation	0.00	0.00	105	0.00	—
Grading	0.00	9,000	120	0.00	—
Paving	0.00	0.00	0.00	0.00	5.21

### 5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%
Water Demolished Area	2	36%	36%

## 5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
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Unrefrigerated Warehouse-No Rail	0.00	0%
Refrigerated Warehouse-No Rail	0.00	0%
Parking Lot	1.53	100%
Other Asphalt Surfaces	3.68	100%

## 5.8. Construction Electricity Consumption and Emissions Factors

### kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	532	0.03	< 0.005
2024	0.00	532	0.03	< 0.005

## 5.18. Vegetation

### 5.18.1. Land Use Change

#### 5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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### 5.18.1. Biomass Cover Type

#### 5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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### 5.18.2. Sequestration

#### 5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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## 6. Climate Risk Detailed Report

### 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.1	annual days of extreme heat
Extreme Precipitation	5.30	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about  $\frac{3}{4}$  an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

### 6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A

Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

### 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

### 6.4. Climate Risk Reduction Measures

## 7. Health and Equity Details

### 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
-----------	---------------------------------

Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	95.7
AQ-DPM	96.6
Drinking Water	93.3
Lead Risk Housing	8.61
Pesticides	0.00
Toxic Releases	78.9
Traffic	89.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	30.9
Haz Waste Facilities/Generators	78.8
Impaired Water Bodies	0.00
Solid Waste	70.4
Sensitive Population	—
Asthma	47.3
Cardio-vascular	67.3
Low Birth Weights	57.1
Socioeconomic Factor Indicators	—
Education	40.5
Housing	32.3
Linguistic	18.1
Poverty	23.9
Unemployment	53.9

## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	76.78686
Employed	63.51854228
Education	—
Bachelor's or higher	44.59129988
High school enrollment	3.977928911
Preschool enrollment	15.60374695
Transportation	—
Auto Access	88.68215065
Active commuting	10.11163865
Social	—
2-parent households	11.86962659
Voting	50.91749006
Neighborhood	—
Alcohol availability	69.3314513
Park access	61.63223406
Retail density	69.31861927
Supermarket access	2.399589375
Tree canopy	29.69331451
Housing	—
Homeownership	78.81432054
Housing habitability	80.20017965
Low-inc homeowner severe housing cost burden	88.74631079
Low-inc renter severe housing cost burden	37.86731682
Uncrowded housing	60.77248813
Health Outcomes	—

Insured adults	67.2783267
Arthritis	74.6
Asthma ER Admissions	54.3
High Blood Pressure	79.9
Cancer (excluding skin)	68.9
Asthma	49.0
Coronary Heart Disease	85.5
Chronic Obstructive Pulmonary Disease	74.0
Diagnosed Diabetes	64.3
Life Expectancy at Birth	52.5
Cognitively Disabled	87.2
Physically Disabled	77.4
Heart Attack ER Admissions	10.4
Mental Health Not Good	50.5
Chronic Kidney Disease	79.8
Obesity	43.5
Pedestrian Injuries	99.0
Physical Health Not Good	58.2
Stroke	80.6
Health Risk Behaviors	—
Binge Drinking	19.3
Current Smoker	53.5
No Leisure Time for Physical Activity	61.3
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	32.5

Elderly	84.2
English Speaking	91.4
Foreign-born	35.9
Outdoor Workers	45.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	76.5
Traffic Density	89.2
Traffic Access	46.3
Other Indices	—
Hardship	44.0
Other Decision Support	—
2016 Voting	74.5

### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	65.0
Healthy Places Index Score for Project Location (b)	42.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

### 7.4. Health & Equity Measures

No Health & Equity Measures selected.

### 7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.



## 8. User Changes to Default Data

Screen	Justification
Land Use	Total Project Site is 13.08 acres
Construction: Construction Phases	Construction anticipated to end in April 2024
Construction: Off-Road Equipment	Construction equipment based on equipment needed for other industrial projects within the area
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Demolition, Site Preparation, Grading, and Building Construction
Construction: Architectural Coatings	Rule 1113

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## **APPENDIX 4.2:**

### **CALEEMOD PROJECT OPERATIONAL EMISSIONS MODEL OUTPUTS**

# IE Distribution Center #14 (Passenger Car Operations) Detailed Report

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## 8. User Changes to Default Data



# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	IE Distribution Center #14 (Passenger Car Operations)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	20.8
Location	34.06334566920109, -117.53410603073728
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5288
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	243	1000sqft	7.08	243,303	65,274	0.00	—	—
Refrigerated Warehouse-No Rail	27.0	1000sqft	0.79	27,034	7,253	0.00	—	—

Parking Lot	299	Space	1.53	0.00	0.00	0.00	—	—
Other Asphalt Surfaces	161	1000sqft	3.68	0.00	0.00	0.00	—	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

## 2. Emissions Summary

### 2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.75	9.84	3.77	29.9	0.05	0.25	1.18	1.43	0.25	0.20	0.45	257	8,875	9,132	26.6	0.41	6,525	16,442
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.60	7.85	3.76	15.0	0.05	0.23	1.18	1.41	0.23	0.20	0.43	257	8,562	8,818	26.6	0.41	6,512	16,117
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.68	8.85	3.60	20.1	0.04	0.24	0.86	1.10	0.24	0.15	0.39	257	7,811	8,068	26.6	0.39	6,516	15,364
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.49	1.61	0.66	3.67	0.01	0.04	0.16	0.20	0.04	0.03	0.07	42.5	1,293	1,336	4.40	0.06	1,079	2,544

### 2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

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Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.35	1.23	0.80	15.7	0.03	0.01	1.18	1.19	0.01	0.20	0.21	—	3,299	3,299	0.11	0.08	13.1	3,338
Area	2.09	8.45	0.10	11.8	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.3	48.3	< 0.005	< 0.005	—	49.8
Energy	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	5,116	5,116	0.46	0.03	—	5,135
Water	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Waste	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Total	3.75	9.84	3.77	29.9	0.05	0.25	1.18	1.43	0.25	0.20	0.45	257	8,875	9,132	26.6	0.41	6,525	16,442
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.28	1.16	0.89	12.6	0.03	0.01	1.18	1.19	0.01	0.20	0.21	—	3,033	3,033	0.12	0.09	0.34	3,062
Area	—	6.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	5,116	5,116	0.46	0.03	—	5,135
Water	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Waste	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Total	1.60	7.85	3.76	15.0	0.05	0.23	1.18	1.41	0.23	0.20	0.43	257	8,562	8,818	26.6	0.41	6,512	16,117
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.93	0.85	0.67	9.65	0.02	0.01	0.86	0.87	0.01	0.15	0.16	—	2,250	2,250	0.08	0.06	4.12	2,275
Area	1.43	7.84	0.07	8.05	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.1	33.1	< 0.005	< 0.005	—	34.1
Energy	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	5,116	5,116	0.46	0.03	—	5,135
Water	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Waste	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512

Total	2.68	8.85	3.60	20.1	0.04	0.24	0.86	1.10	0.24	0.15	0.39	257	7,811	8,068	26.6	0.39	6,516	15,364
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.17	0.15	0.12	1.76	< 0.005	< 0.005	0.16	0.16	< 0.005	0.03	0.03	—	373	373	0.01	0.01	0.68	377
Area	0.26	1.43	0.01	1.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.48	5.48	< 0.005	< 0.005	—	5.64
Energy	0.06	0.03	0.52	0.44	< 0.005	0.04	—	0.04	0.04	—	0.04	—	847	847	0.08	< 0.005	—	850
Water	—	—	—	—	—	—	—	—	—	—	—	19.8	68.3	88.1	2.04	0.05	—	154
Waste	—	—	—	—	—	—	—	—	—	—	—	22.7	0.00	22.7	2.27	0.00	—	79.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,078	1,078
Total	0.49	1.61	0.66	3.67	0.01	0.04	0.16	0.20	0.04	0.03	0.07	42.5	1,293	1,336	4.40	0.06	1,079	2,544

## 4. Operations Emissions Details

### 4.1. Mobile Emissions by Land Use

#### 4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.18	1.08	0.70	13.8	0.03	0.01	0.13	0.15	0.01	0.04	0.05	—	2,892	2,892	0.10	0.07	11.4	2,926
Refrigerated Warehouse-No Rail	0.17	0.15	0.10	1.94	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	407	407	0.01	0.01	1.61	412

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Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.35	1.23	0.80	15.7	0.03	0.01	0.15	0.17	0.01	0.05	0.06	—	3,299	3,299	0.11	0.08	13.1	3,338	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.13	1.02	0.78	11.1	0.03	0.01	0.13	0.15	0.01	0.04	0.05	—	2,659	2,659	0.10	0.07	0.30	2,684	
Refrigerated Warehouse-No Rail	0.16	0.14	0.11	1.56	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	374	374	0.01	0.01	0.04	378	
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.28	1.16	0.89	12.6	0.03	0.01	0.15	0.17	0.01	0.05	0.06	—	3,033	3,033	0.12	0.09	0.34	3,062	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.15	0.14	0.11	1.54	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	327	327	0.01	0.01	0.60	330	
Refrigerated Warehouse-No Rail	0.02	0.02	0.02	0.22	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	45.9	45.9	< 0.005	< 0.005	0.08	46.4	

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.17	0.15	0.12	1.76	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	373	373	0.01	0.01	0.68	377	

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,073	1,073	0.10	0.01	—	1,080
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	565	565	0.05	0.01	—	569
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	55.8	55.8	0.01	< 0.005	—	56.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,695	1,695	0.16	0.02	—	1,704
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,073	1,073	0.10	0.01	—	1,080
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	565	565	0.05	0.01	—	569
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	55.8	55.8	0.01	< 0.005	—	56.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,695	1,695	0.16	0.02	—	1,704
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	178	178	0.02	< 0.005	—	179
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	93.6	93.6	0.01	< 0.005	—	94.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	9.23	9.23	< 0.005	< 0.005	—	9.29
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	281	281	0.03	< 0.005	—	282

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

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Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.27	0.14	2.48	2.09	0.01	0.19	—	0.19	0.19	—	0.19	—	2,965	2,965	0.26	0.01	—	2,973
Refrigerated Warehouse-No Rail	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.04	< 0.005	—	458
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	3,421	3,421	0.30	0.01	—	3,431
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.27	0.14	2.48	2.09	0.01	0.19	—	0.19	0.19	—	0.19	—	2,965	2,965	0.26	0.01	—	2,973
Refrigerated Warehouse-No Rail	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.04	< 0.005	—	458
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00



Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	3,421	3,421	0.30	0.01	—	3,431
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.02	0.45	0.38	< 0.005	0.03	—	0.03	0.03	—	0.03	—	491	491	0.04	< 0.005	—	492
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	75.6	75.6	0.01	< 0.005	—	75.8
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.06	0.03	0.52	0.44	< 0.005	0.04	—	0.04	0.04	—	0.04	—	566	566	0.05	< 0.005	—	568

### 4.3. Area Emissions by Source

#### 4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.80	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	0.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.09	1.93	0.10	11.8	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.3	48.3	< 0.005	< 0.005	—	49.8
Total	2.09	8.45	0.10	11.8	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.3	48.3	< 0.005	< 0.005	—	49.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.80	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	6.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.26	0.24	0.01	1.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.48	5.48	< 0.005	< 0.005	—	5.64
Total	0.26	1.43	0.01	1.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.48	5.48	< 0.005	< 0.005	—	5.64

#### 4.4. Water Emissions by Land Use

##### 4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

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Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	108	371	479	11.1	0.27	—	836
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	12.0	41.2	53.2	1.23	0.03	—	92.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	108	371	479	11.1	0.27	—	836
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	12.0	41.2	53.2	1.23	0.03	—	92.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	17.8	61.4	79.3	1.84	0.04	—	138
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	1.98	6.83	8.81	0.20	< 0.005	—	15.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	19.8	68.3	88.1	2.04	0.05	—	154

#### 4.5. Waste Emissions by Land Use

##### 4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	123	0.00	123	12.3	0.00	—	431
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	13.7	0.00	13.7	1.37	0.00	—	47.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	123	0.00	123	12.3	0.00	—	431
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	13.7	0.00	13.7	1.37	0.00	—	47.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	20.4	0.00	20.4	2.04	0.00	—	71.4
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	2.27	0.00	2.27	0.23	0.00	—	7.93
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	22.7	0.00	22.7	2.27	0.00	—	79.3

#### 4.6. Refrigerant Emissions by Land Use

##### 4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,484	6,484
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.6	27.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,484	6,484
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.6	27.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,074	1,074
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.56	4.56
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,078	1,078

### 4.7. Offroad Emissions By Equipment Type

#### 4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
----------------	-----	-----	-----	----	-----	-------	-------	-------	--------	--------	--------	------	-------	------	-----	-----	---	------

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.8. Stationary Emissions By Equipment Type

##### 4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.9. User Defined Emissions By Equipment Type



### 4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.10. Soil Carbon Accumulation By Vegetation Type

#### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 5. Activity Data

### 5.9. Operational Mobile Sources

#### 5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	267	23.5	9.37	71,399	3,878	340	136	1,035,864
Refrigerated Warehouse-No Rail	37.6	3.18	1.27	10,041	546	46.2	18.5	145,674
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## 5.10. Operational Area Sources

### 5.10.1. Hearths

#### 5.10.1.1. Unmitigated

### 5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	415,727	138,576	13,629

### 5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

## 5.11. Operational Energy Consumption

### 5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBtu/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	1,123,744	349	0.0330	0.0040	4,625,355
Refrigerated Warehouse-No Rail	591,921	349	0.0330	0.0040	712,190
Parking Lot	58,383	349	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	349	0.0330	0.0040	0.00

## 5.12. Operational Water and Wastewater Consumption

### 5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	56,263,819	1,048,248
Refrigerated Warehouse-No Rail	6,251,613	116,472
Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00

## 5.13. Operational Waste Generation

### 5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	229	0.00
Refrigerated Warehouse-No Rail	25.4	0.00
Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00

## 5.14. Operational Refrigeration and Air Conditioning Equipment

## 5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Served
Unrefrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0
Refrigerated Warehouse-No Rail	Cold storage	User Defined	150	7.50	7.50	7.50	25.0

## 5.15. Operational Off-Road Equipment

## 5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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## 5.16. Stationary Sources

## 5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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## 5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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## 5.17. User Defined

Equipment Type	Fuel Type
—	—

## 5.18. Vegetation

### 5.18.1. Land Use Change

#### 5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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### 5.18.1. Biomass Cover Type

#### 5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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### 5.18.2. Sequestration

#### 5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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## 6. Climate Risk Detailed Report

### 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.1	annual days of extreme heat
Extreme Precipitation	5.30	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about  $\frac{3}{4}$  an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

## 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A



Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

## 6.4. Climate Risk Reduction Measures

# 7. Health and Equity Details

## 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	95.7
AQ-DPM	96.6
Drinking Water	93.3
Lead Risk Housing	8.61
Pesticides	0.00
Toxic Releases	78.9
Traffic	89.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	30.9

Haz Waste Facilities/Generators	78.8
Impaired Water Bodies	0.00
Solid Waste	70.4
Sensitive Population	—
Asthma	47.3
Cardio-vascular	67.3
Low Birth Weights	57.1
Socioeconomic Factor Indicators	—
Education	40.5
Housing	32.3
Linguistic	18.1
Poverty	23.9
Unemployment	53.9

## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	76.78686
Employed	63.51854228
Education	—
Bachelor's or higher	44.59129988
High school enrollment	3.977928911
Preschool enrollment	15.60374695
Transportation	—
Auto Access	88.68215065
Active commuting	10.11163865

Social	—
2-parent households	11.86962659
Voting	50.91749006
Neighborhood	—
Alcohol availability	69.3314513
Park access	61.63223406
Retail density	69.31861927
Supermarket access	2.399589375
Tree canopy	29.69331451
Housing	—
Homeownership	78.81432054
Housing habitability	80.20017965
Low-inc homeowner severe housing cost burden	88.74631079
Low-inc renter severe housing cost burden	37.86731682
Uncrowded housing	60.77248813
Health Outcomes	—
Insured adults	67.2783267
Arthritis	74.6
Asthma ER Admissions	54.3
High Blood Pressure	79.9
Cancer (excluding skin)	68.9
Asthma	49.0
Coronary Heart Disease	85.5
Chronic Obstructive Pulmonary Disease	74.0
Diagnosed Diabetes	64.3
Life Expectancy at Birth	52.5
Cognitively Disabled	87.2

Physically Disabled	77.4
Heart Attack ER Admissions	10.4
Mental Health Not Good	50.5
Chronic Kidney Disease	79.8
Obesity	43.5
Pedestrian Injuries	99.0
Physical Health Not Good	58.2
Stroke	80.6
Health Risk Behaviors	—
Binge Drinking	19.3
Current Smoker	53.5
No Leisure Time for Physical Activity	61.3
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	32.5
Elderly	84.2
English Speaking	91.4
Foreign-born	35.9
Outdoor Workers	45.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	76.5
Traffic Density	89.2
Traffic Access	46.3
Other Indices	—
Hardship	44.0
Other Decision Support	—

2016 Voting	74.5
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### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	65.0
Healthy Places Index Score for Project Location (b)	42.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

### 7.4. Health & Equity Measures

No Health & Equity Measures selected.

### 7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

## 8. User Changes to Default Data

Screen	Justification
Land Use	Total Project Area is 13.08 acres
Operations: Vehicle Data	Trip rates based on information provided in ITE 11th Edition
Operations: Fleet Mix	Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, & MCY)
Operations: Refrigerants	As of 1 January 2022, new commercial refrigeration equipment may not use refrigerants with a GWP of 150 or greater.

# IE Distribution Center #14 (Truck Operations) Detailed Report

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## 8. User Changes to Default Data

# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	IE Distribution Center #14 (Truck Operations)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	20.8
Location	34.06334566920109, -117.53410603073728
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5288
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	243	1000sqft	7.08	243,303	65,274	0.00	—	—
Refrigerated Warehouse-No Rail	27.0	1000sqft	0.79	27,034	7,253	0.00	—	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

## 2. Emissions Summary

### 2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.54	8.84	14.1	20.7	0.10	0.38	1.51	1.88	0.38	0.36	0.73	257	15,122	15,379	27.3	1.76	6,540	23,126
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.44	6.90	14.5	8.94	0.10	0.36	1.51	1.87	0.36	0.36	0.71	257	15,077	15,333	27.3	1.76	6,512	23,052
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.57	8.15	11.5	15.2	0.08	0.34	1.10	1.44	0.33	0.26	0.59	257	12,532	12,789	27.1	1.38	6,521	20,397
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.47	1.49	2.10	2.78	0.01	0.06	0.20	0.26	0.06	0.05	0.11	42.5	2,075	2,117	4.48	0.23	1,080	3,377

### 2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

IE Distribution Center #14 (Truck Operations) Detailed Report, 8/18/2022

Mobile	1.14	0.28	11.1	6.51	0.09	0.15	1.51	1.65	0.14	0.36	0.49	—	9,602	9,602	0.83	1.43	28.2	10,078
Area	2.09	8.40	0.10	11.8	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.3	48.3	< 0.005	< 0.005	—	49.8
Energy	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	5,060	5,060	0.46	0.03	—	5,079
Water	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Waste	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Total	3.54	8.84	14.1	20.7	0.10	0.38	1.51	1.88	0.38	0.36	0.73	257	15,122	15,379	27.3	1.76	6,540	23,126
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.13	0.27	11.6	6.53	0.09	0.15	1.51	1.65	0.14	0.36	0.49	—	9,604	9,604	0.83	1.44	0.73	10,054
Area	—	6.47	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	5,060	5,060	0.46	0.03	—	5,079
Water	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Waste	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Total	1.44	6.90	14.5	8.94	0.10	0.36	1.51	1.87	0.36	0.36	0.71	257	15,077	15,333	27.3	1.76	6,512	23,052
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.83	0.20	8.57	4.76	0.06	0.11	1.10	1.21	0.10	0.26	0.36	—	7,027	7,027	0.60	1.05	8.91	7,364
Area	1.43	7.79	0.07	8.05	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.1	33.1	< 0.005	< 0.005	—	34.1
Energy	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	5,060	5,060	0.46	0.03	—	5,079
Water	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Waste	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Total	2.57	8.15	11.5	15.2	0.08	0.34	1.10	1.44	0.33	0.26	0.59	257	12,532	12,789	27.1	1.38	6,521	20,397
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.15	0.04	1.56	0.87	0.01	0.02	0.20	0.22	0.02	0.05	0.07	—	1,163	1,163	0.10	0.17	1.47	1,219
Area	0.26	1.42	0.01	1.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.48	5.48	< 0.005	< 0.005	—	5.64

Energy	0.06	0.03	0.52	0.44	< 0.005	0.04	—	0.04	0.04	—	0.04	—	838	838	0.08	< 0.005	—	841
Water	—	—	—	—	—	—	—	—	—	—	—	19.8	68.3	88.1	2.04	0.05	—	154
Waste	—	—	—	—	—	—	—	—	—	—	—	22.7	0.00	22.7	2.27	0.00	—	79.3
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,078	1,078
Total	0.47	1.49	2.10	2.78	0.01	0.06	0.20	0.26	0.06	0.05	0.11	42.5	2,075	2,117	4.48	0.23	1,080	3,377

## 4. Operations Emissions Details

### 4.1. Mobile Emissions by Land Use

#### 4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.00	0.24	9.79	5.66	0.08	0.13	0.65	0.77	0.12	0.21	0.33	—	8,521	8,521	0.73	1.28	24.4	8,945
Refrigerated Warehouse-No Rail	0.14	0.05	1.32	0.85	0.01	0.02	0.09	0.11	0.02	0.03	0.05	—	1,080	1,080	0.09	0.15	3.82	1,133
Total	1.14	0.28	11.1	6.51	0.09	0.15	0.74	0.88	0.14	0.24	0.38	—	9,602	9,602	0.83	1.43	28.2	10,078
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse Rail	0.99	0.23	10.2	5.68	0.08	0.13	0.65	0.77	0.12	0.21	0.33	—	8,523	8,523	0.73	1.28	0.63	8,924
Refrigerated Warehouse-No Rail	0.14	0.04	1.38	0.85	0.01	0.02	0.09	0.11	0.02	0.03	0.05	—	1,081	1,081	0.09	0.16	0.10	1,129
Total	1.13	0.27	11.6	6.53	0.09	0.15	0.74	0.88	0.14	0.24	0.38	—	9,604	9,604	0.83	1.44	0.73	10,054
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.13	0.03	1.38	0.76	0.01	0.02	0.09	0.10	0.02	0.03	0.04	—	1,033	1,033	0.09	0.16	1.28	1,082
Refrigerated Warehouse-No Rail	0.02	0.01	0.19	0.11	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	131	131	0.01	0.02	0.20	137
Total	0.15	0.04	1.56	0.87	0.01	0.02	0.10	0.12	0.02	0.03	0.05	—	1,163	1,163	0.10	0.17	1.47	1,219

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No	—	—	—	—	—	—	—	—	—	—	—	—	1,073	1,073	0.10	0.01	—	1,080
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	565	565	0.05	0.01	—	569
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,639	1,639	0.16	0.02	—	1,648
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	1,073	1,073	0.10	0.01	—	1,080
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	565	565	0.05	0.01	—	569
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,639	1,639	0.16	0.02	—	1,648
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	178	178	0.02	< 0.005	—	179
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	93.6	93.6	0.01	< 0.005	—	94.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	271	271	0.03	< 0.005	—	273



4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.27	0.14	2.48	2.09	0.01	0.19	—	0.19	0.19	—	0.19	—	2,965	2,965	0.26	0.01	—	2,973
Refrigerated Warehouse-No Rail	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.04	< 0.005	—	458
Total	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	3,421	3,421	0.30	0.01	—	3,431
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.27	0.14	2.48	2.09	0.01	0.19	—	0.19	0.19	—	0.19	—	2,965	2,965	0.26	0.01	—	2,973
Refrigerated Warehouse-No Rail	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	456	456	0.04	< 0.005	—	458
Total	0.32	0.16	2.87	2.41	0.02	0.22	—	0.22	0.22	—	0.22	—	3,421	3,421	0.30	0.01	—	3,431
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No	0.05	0.02	0.45	0.38	< 0.005	0.03	—	0.03	0.03	—	0.03	—	491	491	0.04	< 0.005	—	492
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	75.6	75.6	0.01	< 0.005	—	75.8
Total	0.06	0.03	0.52	0.44	< 0.005	0.04	—	0.04	0.04	—	0.04	—	566	566	0.05	< 0.005	—	568

### 4.3. Area Emissions by Source

#### 4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	5.79	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.69	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.09	1.93	0.10	11.8	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.3	48.3	< 0.005	< 0.005	—	49.8
Total	2.09	8.40	0.10	11.8	< 0.005	0.02	—	0.02	0.02	—	0.02	—	48.3	48.3	< 0.005	< 0.005	—	49.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer Products	—	5.79	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.69	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	6.47	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.26	0.24	0.01	1.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.48	5.48	< 0.005	< 0.005	—	5.64
Total	0.26	1.42	0.01	1.47	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.48	5.48	< 0.005	< 0.005	—	5.64

#### 4.4. Water Emissions by Land Use

##### 4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	108	371	479	11.1	0.27	—	836

Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	12.0	41.2	53.2	1.23	0.03	—	92.9
Total	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	108	371	479	11.1	0.27	—	836
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	12.0	41.2	53.2	1.23	0.03	—	92.9
Total	—	—	—	—	—	—	—	—	—	—	—	120	412	532	12.3	0.30	—	929
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	17.8	61.4	79.3	1.84	0.04	—	138
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	1.98	6.83	8.81	0.20	< 0.005	—	15.4
Total	—	—	—	—	—	—	—	—	—	—	—	19.8	68.3	88.1	2.04	0.05	—	154

#### 4.5. Waste Emissions by Land Use

##### 4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	123	0.00	123	12.3	0.00	—	431
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	13.7	0.00	13.7	1.37	0.00	—	47.9
Total	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	123	0.00	123	12.3	0.00	—	431
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	13.7	0.00	13.7	1.37	0.00	—	47.9
Total	—	—	—	—	—	—	—	—	—	—	—	137	0.00	137	13.7	0.00	—	479
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	20.4	0.00	20.4	2.04	0.00	—	71.4

Refrigerated	—	—	—	—	—	—	—	—	—	—	—	2.27	0.00	2.27	0.23	0.00	—	7.93
Total	—	—	—	—	—	—	—	—	—	—	—	22.7	0.00	22.7	2.27	0.00	—	79.3

#### 4.6. Refrigerant Emissions by Land Use

##### 4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,484	6,484
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.6	27.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,484	6,484

Refrigerated Warehouse-No	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27.6	27.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6,512	6,512
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,074	1,074
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4.56	4.56
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,078	1,078

### 4.7. Offroad Emissions By Equipment Type

#### 4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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### 4.8. Stationary Emissions By Equipment Type

#### 4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

### 4.9. User Defined Emissions By Equipment Type

#### 4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—



Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

#### 4.10. Soil Carbon Accumulation By Vegetation Type

##### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

##### 4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

## 5. Activity Data

### 5.9. Operational Mobile Sources

#### 5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	145	12.7	5.08	38,611	2,893	254	102	772,662
Refrigerated Warehouse-No Rail	21.8	1.84	0.74	5,813	413	34.9	14.0	110,224

### 5.10. Operational Area Sources

#### 5.10.1. Hearths

## 5.10.1.1. Unmitigated

## 5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	405,506	135,169	—

## 5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

## 5.11. Operational Energy Consumption

## 5.11.1. Unmitigated

## Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	1,123,744	349	0.0330	0.0040	4,625,355
Refrigerated Warehouse-No Rail	591,921	349	0.0330	0.0040	712,190

## 5.12. Operational Water and Wastewater Consumption

## 5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	56,263,819	1,048,248
Refrigerated Warehouse-No Rail	6,251,613	116,472

## 5.13. Operational Waste Generation

### 5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	229	0.00
Refrigerated Warehouse-No Rail	25.4	0.00

## 5.14. Operational Refrigeration and Air Conditioning Equipment

### 5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Unrefrigerated Warehouse-No Rail	Cold storage	R-404A	3,922	7.50	7.50	7.50	25.0
Refrigerated Warehouse-No Rail	Cold storage	User Defined	150	7.50	7.50	7.50	25.0

## 5.15. Operational Off-Road Equipment

### 5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
----------------	-----------	-------------	----------------	---------------	------------	-------------

## 5.16. Stationary Sources

### 5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
----------------	-----------	----------------	---------------	----------------	------------	-------------

### 5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
----------------	-----------	--------	--------------------------	------------------------------	------------------------------

### 5.17. User Defined

Equipment Type	Fuel Type
—	—

### 5.18. Vegetation

#### 5.18.1. Land Use Change

##### 5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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#### 5.18.1. Biomass Cover Type

##### 5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
--------------------	---------------	-------------

#### 5.18.2. Sequestration

##### 5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
-----------	--------	------------------------------	------------------------------

## 6. Climate Risk Detailed Report

### 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.1	annual days of extreme heat
Extreme Precipitation	5.30	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

### 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

### 6.4. Climate Risk Reduction Measures

## 7. Health and Equity Details

### 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	95.7
AQ-DPM	96.6



Drinking Water	93.3
Lead Risk Housing	8.61
Pesticides	0.00
Toxic Releases	78.9
Traffic	89.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	30.9
Haz Waste Facilities/Generators	78.8
Impaired Water Bodies	0.00
Solid Waste	70.4
Sensitive Population	—
Asthma	47.3
Cardio-vascular	67.3
Low Birth Weights	57.1
Socioeconomic Factor Indicators	—
Education	40.5
Housing	32.3
Linguistic	18.1
Poverty	23.9
Unemployment	53.9

## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	76.78686

Employed	63.51854228
Education	—
Bachelor's or higher	44.59129988
High school enrollment	3.977928911
Preschool enrollment	15.60374695
Transportation	—
Auto Access	88.68215065
Active commuting	10.11163865
Social	—
2-parent households	11.86962659
Voting	50.91749006
Neighborhood	—
Alcohol availability	69.3314513
Park access	61.63223406
Retail density	69.31861927
Supermarket access	2.399589375
Tree canopy	29.69331451
Housing	—
Homeownership	78.81432054
Housing habitability	80.20017965
Low-inc homeowner severe housing cost burden	88.74631079
Low-inc renter severe housing cost burden	37.86731682
Uncrowded housing	60.77248813
Health Outcomes	—
Insured adults	67.2783267
Arthritis	74.6
Asthma ER Admissions	54.3

High Blood Pressure	79.9
Cancer (excluding skin)	68.9
Asthma	49.0
Coronary Heart Disease	85.5
Chronic Obstructive Pulmonary Disease	74.0
Diagnosed Diabetes	64.3
Life Expectancy at Birth	52.5
Cognitively Disabled	87.2
Physically Disabled	77.4
Heart Attack ER Admissions	10.4
Mental Health Not Good	50.5
Chronic Kidney Disease	79.8
Obesity	43.5
Pedestrian Injuries	99.0
Physical Health Not Good	58.2
Stroke	80.6
Health Risk Behaviors	—
Binge Drinking	19.3
Current Smoker	53.5
No Leisure Time for Physical Activity	61.3
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	32.5
Elderly	84.2
English Speaking	91.4
Foreign-born	35.9

Outdoor Workers	45.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	76.5
Traffic Density	89.2
Traffic Access	46.3
Other Indices	—
Hardship	44.0
Other Decision Support	—
2016 Voting	74.5

### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	65.0
Healthy Places Index Score for Project Location (b)	42.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

### 7.4. Health & Equity Measures

No Health & Equity Measures selected.

### 7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

## 8. User Changes to Default Data

Screen	Justification
--------	---------------

Land Use	Total Project Area (without Parking and Other Asphalt Surfaces) is 7.87 acres
Operations: Vehicle Data	Trip rates based on information provided in ITE 11th Edition
Operations: Fleet Mix	Truck Mix based on SCAQMD recommended truck mix
Operations: Refrigerants	As of 1 January 2022, new commercial refrigeration equipment may not use refrigerants with a GWP of 150 or greater.

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**PHASE I/PHASE II  
ENVIRONMENTAL SITE ASSESSMENT REPORT**

**5355 East Airport Drive  
Ontario, California**

**Submitted by:  
Farallon Consulting, L.L.C.  
27 Mauchly, Suite 213  
Irvine, California 92618**

**Farallon PN: 1071-080 (Task 2)**

**For:  
Prologis, Inc.  
Pier 1, Bay 1  
San Francisco, California 94111**

March 31, 2022

Prepared by:



Brant Rotnem  
Staff Geologist



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Reviewed by:



Scott Allin, R.E.P.A.  
Principal Environmental Scientist



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## ENVIRONMENTAL PROFESSIONALS' STATEMENT

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as established in Part 312.10 of Title 40 of the Code of Federal Regulations (40 CFR 312.10) and we have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR 312.

Name Brant Rotnem  
Title Staff Geologist

Name Kathy Lehnus, L.E.P., P.G.  
Title Senior Geologist

Name Scott Allin, R.E.P.A.  
Title Principal Environmental Scientist



## EXECUTIVE SUMMARY

Farallon Consulting, L.L.C. (Farallon) has prepared this Phase I/Phase II Environmental Site Assessment (Phase I/II ESA) Report for the property at 5355 East Airport Drive in Ontario, California (herein referred to as the Site). The Phase I/II ESA was conducted by Brant Rotnem and was reviewed and approved by Kathy Lehnus and Scott Allin. All are experienced Environmental Professionals in the field of Phase I/II ESAs and related environmental investigations.

This Phase I/II ESA Report was prepared for Prologis, L.P., and its subsidiaries, affiliates, related parties (specifically including any 1031 exchange entities), successors, and assigns (Prologis) in accordance the letter regarding Proposal for Phase I Environmental Site Assessment and Media Management Plan dated December 10, 2021, from Kathy Lehnus and Scott Allin of Farallon to Julia Smith of Prologis; and the letter regarding Proposal for Subsurface Investigation, 5355 East Airport Drive, Ontario, California dated February 14, 2022, from Kathy Lehnus and Scott Allin of Farallon to Julia Smith of Prologis. The scope of work for this Phase I/II ESA is consistent with ASTM International Standard E1527-13 and E1527-21, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM E1527-13 and -21). ASTM E1527-13 is intended to assist the user in satisfying one of the requirements to qualify for protection from potential liability under the Comprehensive Environmental Response, Compensation, and Liability Act as the innocent landowner, contiguous property owner, or bona fide prospective purchaser. ASTM E1527-13 constitutes “all appropriate inquiry” into the previous ownership, uses, and environmental conditions of a property consistent with good commercial or customary practice, as defined in Section 9601(35)(B) of Title 42 of the U.S. Code.

There were no deviations from ASTM E1527-13 or -21 during this Phase I/II ESA, with the exception of additional environmental services requested by Prologis. Limiting conditions encountered during the Phase I/II ESA were the presence of vehicles parked on exterior portions of the Site that prevented Farallon from observing the entire ground surface of the Site, and the presence of equipment in the Site buildings that prevented Farallon from observing the entire interior floor surfaces. Based on information obtained from the Site representative, historical records, previous reports, and data obtained during the subsurface investigation conducted in March 2022, these limiting conditions are not expected to alter the conclusions of this report.

The purpose of the Phase I/II ESA was to identify, as practicable, recognized environmental conditions on the Site or proximate to the Site that have caused and/or may cause an adverse environmental condition. This Phase I/II ESA Report provides the results of investigation into past and present ownership and uses of the Site, consistent with good commercial and/or customary practice.

The Site consists of two parcels totaling 14.2 acres: Assessor Parcel No. 0238-052-20 (Eastern Parcel), and Assessor Parcel No. 0238-052-29 (Western Parcel). The Site is occupied by George Verhoeven Grain Inc. (dba Verhoeven Grain Inc.) and The Scoular Company, grain processing companies. Operations consist of the processing of raw grain, which is received by truck or by rail from the rail line north of the Site. The exact location of the rail line and associated spurs with



respect to the northern Site boundary could not be confirmed in available files. The raw materials are off-loaded, weighed, and transported to grain storage silos or other storage areas either by an underground auger conveyance or by dedicated on-Site vehicles. Raw grain processing operations occur at the grain mill Area, located in the north-central portion of the Site. After production, the processed grain is weighed, packaged, and loaded onto trucks for distribution.

The Site includes five buildings on the Eastern Parcel, consisting of Building A, used for office and warehouse space; Building B, used for facility maintenance with a vehicle repair shop; Building C, used as a warehouse; and Buildings D and E, used for grain storage. In addition, an office trailer with a small hazardous materials storage area is present on the southern portion of the Western Parcel. On-Site buildings are reportedly connected to septic systems; septic tanks are reportedly located southeast of Building E and potentially east of Building B, and one septic system is reportedly located on the western portion of the Site (location unknown). In 2016, a suspected septic system appears to have been located with ground-penetrating radar north of Building A, which could be in addition to or instead of previously reported septic systems. A vehicle wash-down area with sump leading to an empty 10,000-gallon wash water aboveground storage tank (AST) is located north of Building B; this system is no longer used. Historical features associated with previous operations on the Site include two former “fuel storage” 12,000-gallon underground storage tanks (USTs) at the grain mill area, one former 12,000-gallon diesel UST east of Building C, and a former UST area containing an unspecified number of former USTs west of Building B. These USTs are discussed further below. Access to the Site is gained from East Airport Drive, south of the Site. According to the San Bernardino County Assessor’s Office, the Site owner is Prologis Exchange 5355.

Historically, the Site was used as agricultural or grazing land from at least the late 1930s to the early 1970s. By 1973, the Eastern Parcel was developed with small grain storage silos and other features associated with milling operations in the grain mill area. In the 1975 aerial photograph, grain appeared to be stockpiled in the southwestern portion of the Site in Buildings A through C. By 1985, the grain storage structures, Buildings D and E, were developed. By 2002, the Site appeared in its existing configuration. The 2002 aerial photograph shows grain processing operations had expanded at the Site to the Western Parcel, which included the development of three large grain storage silos. The Site has been occupied by Verhoeven Grain Inc. from 1973 to the present; Chino Grain and Milling, Inc. in 1985; Coast Grain Company between 1990 and 2003; The Scoular Company between 2004 and the present; and JD Heistell and Company in 2009.

Adjacent properties at the time of Farallon’s site reconnaissance included a rail line to the north followed by industrial buildings occupied by home furnishing businesses Emser Tile at 5300 Shea Center Drive and Dorel Home Furnishings at 5400 Shea Center Drive; Praxair, Inc. to the east at 5735 East Airport Drive; East Airport Drive to the south followed by industrial buildings occupied by distribution businesses K-Mart Distributions at 5600 East Airport Drive and XPO Logistics, Inc. at 5200 East Airport Drive; and a Verizon facility to the west at 5351 East Airport Drive.

Historically, adjacent properties consisted primarily of undeveloped and/or agricultural land. Railroad tracks were present on the north-adjacent property from at least the early 1900s through the 1960s, when the east-adjacent property was developed with the existing industrial facility. By



the early 1990s, the south-adjacent property was developed with an industrial building. By the early 2000s, the west- and north-adjacent properties were developed with industrial buildings and have remained relatively unchanged through the present.

A brine disposal pond owned by the Union Pacific Railroad Company and used by the Coast Grain Company for boiler blow-down water was installed in 1969 and removed in 1998 to allow for the addition of a rail line north of the grain mill area. According to the letter regarding Approval of Closure Report for the Brine Disposal Pond, Coast Grain Company, Ontario, California dated September 24, 1999, from the Santa Ana Regional Water Quality Control Board (Water Board), the closure of the pond included the removal of approximately 7,500 cubic yards of salt-contaminated soil and placement of a 40-mil high-density polyethylene liner. Miscellaneous analytical data available in the Water Board file indicated that soil was analyzed for pH, with no elevated readings noted. Based on mapping provided in the Water Board file, the pond was located south of the Southern Pacific Railroad Main Line between two sets of rail spurs; it appears to be just north of the current property line. However, a survey would be required to understand the northern property line in relation to the former brine disposal pond; this is considered a data gap for this report.

*The EDR Radius Map Report with GeoCheck* prepared for the Site by Environmental Data Resources, Inc. (EDR) dated December 9, 2021 (EDR Report) identified the Site address in several databases. The Site listings generally relate to hazardous material management, air quality permit requirements associated with grain processing equipment and operations, and historical USTs. Database listings did not indicate records of a release at the Site. Farallon searched the California State Water Resources Control Board online GeoTracker database and the California Department of Toxic Substances Control online EnviroStor database for records related to the Site, but found no listings.

Farallon reviewed a Phase I ESA report dated August 18, 2016, and a Phase II Subsurface Investigation report dated August 16, 2016, prepared by Partner Engineering and Science, Inc. (Partner) for the Site (Partner 2016 Phase I Report and Partner 2016 Phase II Report, respectively). According to the Partner 2016 Phase I Report, as many as five petroleum USTs were formerly in use at the Site, which was considered a recognized environmental condition, along with truck maintenance operations, ASTs, a vehicle wash-down area, conveyor belts, and at least one septic system. According to the Partner 2016 Phase II Report, 26 borings were advanced at depths between 1 and 25 feet below ground surface for the collection of soil and/or soil gas samples. Soil samples were analyzed for total petroleum hydrocarbons (TPH) carbon chain C6-C40 by U.S. Environmental Protection Agency (EPA) Method 8015C and volatile organic compounds (VOCs) by EPA Method 8260B; and soil gas samples were analyzed for VOCs by EPA Methods TO-15 and 8260B. No detectable concentrations of VOCs or TPH carbon chain C6-C40 were present in soil samples. Analytical results of soil gas samples indicated detections of VOCs including tetrachloroethene, trichloroethene, toluene, ethylbenzene, and xylenes. The concentrations of these detectable results were less than the residential and commercial/industrial calculated soil gas screening levels (SGSL) at the time of the report beneath and west of Building B; however, concentrations of tetrachloroethene (PCE) detected in soil vapor samples collected from beneath



and west of Building B exceed current commercial/industrial calculated SGSLs. Additionally, in comparison with the “low level” ethylbenzene SGSL, the ethylbenzene concentration in one soil vapor sample from this area exceeded the calculated soil gas commercial/industrial screening level of 163 micrograms per cubic meter.

The EDR Report identified several facilities adjacent or proximate to the Site in the regulatory databases. Several of these facilities have known or suspected releases of hazardous substances to soil and/or groundwater. Based on their current regulatory status, depth to groundwater, topographic location relative to the Site, and/or relative distance from the Site, these facilities do not represent recognized environmental conditions in connection with the Site.

Prologis provided Farallon with a *Preliminary Site Plan – Scheme 01, 5355 E. Airport Drive, City of Ontario* by RGA Office of Architectural Design dated November 16, 2021, which depicted a proposed building on the northern and central portions of the Site. In March 2022, Farallon conducted soil and soil vapor sampling at the Site to assess former UST areas and septic systems, and the new building footprint for the potential for vapor intrusion issues. The scope of work for the Phase II ESA portion of this assessment included the advancement of 12 borings and installation of 10 temporary soil vapor probe locations with single- or multi-depth nested vapor points for the collection of soil and soil vapor samples. The Phase II ESA portion of this assessment was conducted on March 4 and 11, 2022.

No TPH or VOCs were detected exceeding laboratory detection limits in the soil samples collected from the Site. Low concentrations of naturally occurring metals including barium, cadmium, cobalt, chromium, copper, nickel, lead, vanadium, and zinc were detected in two soil samples submitted for analysis; these concentrations were considerably less than screening levels.

Based on subslab soil vapor data, soil vapor beneath the slab at Building B contains PCE exceeding calculated screening levels. PCE is present west of Building B at concentrations exceeding current calculated industrial screening levels using the 0.03 attenuation factor, but less than screening levels using the less conservative attenuation factors. PCE was also detected in soil vapor in central and eastern portions of the Site at concentrations less than the calculated screening levels in the shallow zones that were assessed. One concentration of PCE was detected exceeding calculated screening levels in a deeper soil vapor sample collected from the vicinity of two former 12,000-gallon USTs north of the grain mill area; the shallow soil vapor sample collected from this boring did not contain PCE exceeding calculated screening levels. The extent of PCE in soil vapor was not fully characterized.

Based on review of the Site history, including subsurface investigation reports, interviews with persons knowledgeable about the Site, reconnaissance of the Site, review of regulatory agency lists, and the completion of subsurface investigation at the Site, this Phase I/II ESA identified the following recognized environmental condition in connection with the Site:

- PCE impacts potentially associated with the use and storage of hazardous materials at Building B could contribute to vapor intrusion conditions on the Site.



In addition, Farallon identified the following historical recognized environmental conditions in association with the Site:

- Previous environmental reports note that one or more USTs were historically located west of Building B. Farallon was not able to find information regarding the UST in regulatory files, but did find some information regarding three to four diesel and unleaded gasoline USTs ranging in capacity from 4,000 to 10,000 gallons at unspecified locations at the Site preceding the presence of the three known 12,000-gallon USTs (noted in the grain mill area and southeast of Building C). In 2016, Partner conducted a subsurface investigation in this area and did not identify evidence of a petroleum release.
- In 2002, Tank Specialists of California removed a 12,000-gallon diesel steel UST and fuel dispenser mapped southeast of Building C. According to the letter regarding Soil Sampling Following the Removal of an Underground Storage Tank – Coast Grain Co., 5355 E. Airport Drive, Ontario, California dated December 18, 2002, from Advanced GeoEnvironmental, Inc., three confirmatory soil samples were collected beneath the bottom of the UST after removal, and soil samples were collected from stockpiles. The soil samples were analyzed for TPH as diesel; benzene, toluene, ethylbenzene, and xylenes; and methyl tertiary-butyl ether. Minor petroleum impacts were noted in stockpiled soil (800 milligrams per kilogram of TPH as diesel), which was reportedly used as backfill for the excavation. No constituents of concern were detected in the confirmatory soil samples collected from beneath the UST. Advanced GeoEnvironmental, Inc. recommended that San Bernardino County Fire Department (SBCFD) Hazardous Materials Division issue closure of the UST; and the letter regarding Removal of One Underground Storage Tank at Coast Grain Inc., Located at 5355 E. Airport Drive, Ontario, California dated January 8, 2002, from SBCFD was issued indicating that further investigation was not warranted.
- Based on sampling conducted as part of this Phase I/II ESA, no release was found in connection with the two 12,000-gallon “fuel storage” USTs historically located at the grain mill, which were removed from the Site in 1998. A No Further Action determination issued by SBCFD indicated that residual impacts were present, although “below that which is generally considered a problem.”

The vehicle wash-down area located north of Building B was used for washing trucks (including molasses transportation trucks) and is no longer used. According to Site personnel, only truck exteriors were washed (not engines). Given the nature of use and that wash water was routed to an AST, with no discharge, the vehicle wash-down area is considered a de minimis condition for the Site. No release was found in the vicinity of the septic tanks located east of Building B, which provides a disposal pathway for a building that is known to have used chlorinated solvents and vehicular fluids.

Because two or three potential on-Site septic systems on the Western Parcel, located north of Building A and southeast of Building E, appear to be used for domestic sewer, with limited hazardous material use in the proximity that could be introduced to the septic systems as a release pathway, the presence of those septic systems is considered a de minimis condition for the Site. Additionally, the presence of petroleum ASTs with secondary containment and/or no evidence of





leaking, rail spurs within or along the northern property boundary, transformers with no evidence of leaking, and underground grain conveyance systems are considered de minimis conditions for the Site. Further, based on the location and nature of use (boiler blow-down), the former brine pond located in the vicinity of the northern property line is also considered a de minimis condition for the Site.

At the request of Prologis, Farallon has included additional opinions and recommendations for the Site beyond those specified in ASTM E1527-13 and -21 for de minimis and recognized environmental conditions.

Based on the findings from this Phase I/II ESA, Farallon recommends preparation of a Media Management Plan for use during Site redevelopment to address any unexpected impacts to soil associated with historical activities at the Site, and to address any issues related to the former brine pond, underground grain conveyance systems, septic systems, and former USTs at the Site. Additionally, because PCE has been documented in soil vapor in the vicinity of Building B at concentrations exceeding calculated screening levels, and PCE was detected in shallow soil vapor at concentrations less than the calculated RSLs in other soil gas samples collected at the Site, the potential for vapor intrusion into the planned new Site building should be addressed. Additional investigation and characterization are recommended to delineate and design mitigation measures for PCE in soil vapor that may impact indoor air in the future building.



## 1.0 INTRODUCTION

This Phase I/II Environmental Site Assessment (Phase I/II ESA) Report was prepared by Farallon Consulting, L.L.C. (Farallon) for the property at 5355 East Airport Drive in Ontario, California (herein referred to as the Site) (Figure 1). This section discusses the project authorization, and the qualifications of the Environmental Professionals conducting and reviewing the Phase I/II ESA work. Also included in this section are the project purpose, objective, scope of services, deviations, limiting conditions, and data gaps.

### 1.1 PROJECT AUTHORIZATION

This Phase I/II ESA Report was prepared for Prologis, L.P., and its subsidiaries, affiliates, related parties (specifically including any 1031 exchange entities), successors, and assigns (Prologis) in accordance with the letter regarding Proposal for Phase I Environmental Site Assessment and Media Management Plan dated December 10, 2021, from Kathy Lehnus and Scott Allin of Farallon to Julia Smith of Prologis; and the letter regarding Proposal for Subsurface Investigation, 5355 East Airport Drive, Ontario, California dated February 14, 2022, from Kathy Lehnus and Scott Allin of Farallon to Julia Smith of Prologis. The scope of work for this Phase I/II ESA is consistent with ASTM International Standard E1527-13 and E1527-21, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM E1527-13 and -21).

### 1.2 PROFESSIONAL QUALIFICATIONS

The Phase I/II ESA was conducted by Brant Rotnem and was reviewed and approved by Kathy Lehnus and Scott Allin. All have an understanding of surface and subsurface environmental conditions and the processes used to evaluate these conditions, and the ability to develop opinions regarding conditions indicative of a release or threatened release of hazardous substances and petroleum products. These Environmental Professionals have developed and performed all appropriate inquiry, in conformance with the standards and practices set forth in Part 312 of Title 40 of the Code of Federal Regulations. The professional qualifications of Brant Rotnem, Kathy Lehnus, and Scott Allin are provided in Appendix A.

### 1.3 PROJECT PURPOSE AND OBJECTIVE

The purpose of the Phase I/II ESA was to identify, as practicable, recognized environmental conditions on the Site and within the appropriate study area that have caused and/or may cause an adverse environmental impact. ASTM E1527-13 is intended to permit a user to satisfy one of the requirements to qualify for protection from potential liability under the Comprehensive Environmental Response, Compensation, and Liability Act as the innocent landowner, contiguous property owner, or bona fide prospective purchaser. ASTM E1527-13 constitutes “all appropriate inquiry” into the previous ownership, uses, and environmental conditions of a property consistent with good commercial or customary practice, as defined in Section 9601(35)(B) of Title 42 of the U.S. Code.



The objective of the Phase I/II ESA was to perform an appropriate inquiry into past and present ownership and uses of the Site, consistent with good commercial and/or customary practice. This Phase I/II ESA Report is to be used as a risk management tool to meet all appropriate inquiry requirements and the Comprehensive Environmental Response, Compensation, and Liability Act liability defense. The Phase I/II ESA does not guarantee that there are no impacts to the Site.

For the purpose of this Phase I/II ESA Report, the term “recognized environmental condition” is defined as the presence or likely presence of any hazardous substance or petroleum product in, on, or at the Site due to releases to the environment, under conditions indicative of a release to the environment, or under conditions that pose a material threat of a future release to the environment. The term is not intended to include “de minimis conditions” that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of the applicable governmental agencies.

The term “controlled recognized environmental condition” is defined as a recognized environmental condition resulting from a past release of a hazardous substance or petroleum product that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in-place subject to implementation of required controls.

The term “historical recognized environmental condition” is defined as a past release of any hazardous substance or petroleum product that has occurred in connection with the Site and has been addressed to the satisfaction of the applicable regulatory authority, without subjecting the Site to any required controls.

#### **1.4 PROJECT SCOPE OF SERVICES**

This Phase I/II ESA Report was prepared for Prologis, L.P., and its subsidiaries, affiliates, related parties (specifically including any 1031 exchange entities), successors, and assigns (Prologis) in accordance with the letter regarding Proposal for Phase I Environmental Site Assessment and Media Management Plan dated December 10, 2021, from Kathy Lehnus and Scott Allin of Farallon to Julia Smith of Prologis; and the letter regarding Proposal for Subsurface Investigation, 5355 East Airport Drive, Ontario, California dated February 14, 2022, from Kathy Lehnus and Scott Allin of Farallon to Julia Smith of Prologis. In addition, this work was conducted in accordance with the *Master Services Agreement* between Prologis and Farallon dated August 4, 2011.

The scope of work for this Phase I/II ESA included a records review, literature research and review, site reconnaissance, interviews with individuals familiar with the Site, interviews with local governmental officials, an investigation of soil and soil vapor, and preparation of this report.

At the request of Prologis, Farallon provided additional environmental services and recommendations for further action based on the findings of the Phase I/II ESA. These services are considered non-scope items and are not required to satisfy ASTM E1527-13 and -21.



## 1.5 DEVIATIONS

There were no deviations from ASTM E1527-13 or -21 during this Phase I/II ESA, with the exception of additional environmental services requested by Prologis.

## 1.6 LIMITING CONDITIONS

Limiting conditions encountered during this Phase I/II ESA were the presence of vehicles parked on exterior portions of the Site that prevented Farallon from observing the entire ground surface of the Site, and the presence of equipment in the Site buildings that prevented Farallon from observing the entire interior floor surfaces. Based on information obtained from the Site representative, historical records, previous reports, and data obtained during the subsurface investigation conducted in March 2022, these limiting conditions are not expected to alter the conclusions of this report.

## 1.7 DATA GAPS

Data gaps may affect the ability to identify recognized environmental conditions and Farallon's ability to render opinions and conclusions for presentation in the Phase I/II ESA Report. The following data gap was identified during this Phase I/II ESA:

- George Verhoeven Grain Inc., dba Verhoeven Grain Inc. (Verhoeven), receives raw grain via a rail line north of the Site. The exact location of the rail line in relation to the northern property line has not been established in available records; part of the rail line could be located on portions of the Site. This constitutes a data gap for the Site. A land survey would be required to determine whether the rail spurs and/or a former brine pond in the area are present on the Site. If found to be located on the Site, further evaluation regarding the possible environmental issues related to rail lines, transportation of materials, and brine water disposal should be assessed.

Farallon did not identify other data gaps during this Phase I/II ESA.



## 2.0 SITE OVERVIEW

This section includes an overview of the Site location, improvements, and operations. A description of adjacent and surrounding land use also is provided.

### 2.1 SITE LOCATION

The Site is approximately 0.5 mile west of the intersection of Etiwanda Avenue and East Airport Drive, located at 5355 East Airport Drive in Ontario, San Bernardino County, California (Figure 1). The location is in an industrial area approximately 40 miles east of downtown Los Angeles and approximately 7 miles south of the San Bernardino Mountains. The nearest residential community is 1.8 mile southeast of the Site.

### 2.2 SITE DESCRIPTION

The Site consists of two parcels totaling 14.2 acres: Assessor Parcel No. 0238-052-20 (Eastern Parcel), and Assessor Parcel No. 0238-052-29 (Western Parcel).

The Eastern Parcel is occupied by Verhoeven, a grain processing company, and contains grain storage silos, a grain mill area, and five buildings. An office and warehouse building, referred to as “Building A,” is located on the southern portion of the Site. The warehouse portion on the northeastern side of Building A contains a service shop for the repair of machinery related to the grain mill. Wastes stored in this area include motor oil, hydraulic oil, and gear oil, primarily related to tractor and forklift operation. A maintenance and repair shop, referred to as “Building B,” is present on the eastern portion of the Site, and is used for light tractor and forklift service. New and waste vehicle fluids are stored in a hazardous substance storage area on the southwestern interior border of Building B. Additional structures on the Eastern Parcel consist of a warehouse referred to as “Building C” on the north-central portion, used for assorted storage; and two grain storage structures on the southeastern and southwestern portions of the parcel, referred to as Buildings D and E. The property is primarily asphalt-paved, with some gravel-paved areas on the western portion of the parcel. Access to the Site is gained from East Airport Drive, south of the Site.

The Western Parcel is occupied by The Scoular Company (Scoular), a corn storage and distribution facility. The Scoular portion of the Site contains exterior grain storage, with an office trailer that contains a small hazardous substance storage area on secondary containment used for the storage of lubrication oils and greases for equipment.

A vehicle wash-down area is present on the northeastern portion of the Site, and three to four septic systems are associated with the Site: two or three on the Eastern Parcel, and one on the Western Parcel. The location of the septic system on the Western Parcel could not be determined from the records reviewed. Additionally, aboveground storage tanks (ASTs) and three areas with former underground storage tank (USTs) are associated with the Site (detailed in Section 4.5).



Figure 2 presents a general plan map of the Site; additional details pertaining to the Site are provided in Section 8.2, Site Reconnaissance Observations. Site photographs are presented in Appendix B.

## 2.3 SITE OPERATIONS

According to the San Bernardino County Assessor's Office, the Site owner is Prologis Exchange 5355. Verhoeven has operated the Eastern Parcel as a grain processing facility since development in 1973. Raw grain, including corn and barley, is received at the facility via a rail line north of the Site (Assessor Parcel No. 0238-052-22) and distributed via conveyor belt from grain silos to Scoular on the Western Parcel; the exact location of the rail line in relation to the northern property line has not been established in the records reviewed. Raw grain product is transferred via conveyor from the Western Parcel or transloaded from rail cars via underground piping to four large storage silos in the grain mill on the Eastern Parcel.

In the grain mill, the raw grain is fed through a cleaner silo, which removes chaff, cobb pieces, and other excess matter with a water wash. The cleaned grain is gravity-fed through steam jackets, which use natural-gas-fired, boiler-generated steam to soften the product before fan-drying. After processing, the product is stored in silos for off-Site transfer via truck.

In addition to product processing at the grain mill, operations at Verhoeven consist of light tractor and forklift service in Building B. A 4- to 5-foot-deep repair pit is located in Building B that is not in use by Verhoeven. Service on tractors and forklifts includes minor repairs with use of a petroleum-based parts cleaner, and tire changes. The fleet of grain distribution trucks is not serviced on the Site, with the exception of oil changes performed by an external service technician, who reportedly collects and removes the waste oil from the Site.

A bermed truck-washing area equipped with an underground sump leading to an empty 10,000-gallon wash water AST is located north of Building B. Personnel reported that it is no longer in use, only truck exteriors were washed in this area, and no undercarriage/chassis or engine washing was conducted on the Site.

Scoular operates the Western Parcel as a grain storage and distribution facility. Raw grain product is brought onto the Site via rail to the north, and either off-loaded into trucks for direct distribution, or transloaded via underground piping to one of three grain storage silos. The storage silos use hydraulic augers to transfer the grain onto a conveyor system for processing at the Verhoeven grain mill. In addition to the storage silos, the Scoular parcel is developed with a mobile office trailer and a gravel-paved yard.

At the time of the site reconnaissance, Farallon observed hazardous materials in the warehouse in the northeastern portion of Building A, an aboveground fueling area northeast of Building A (consisting of two 250-gallon diesel ASTs and one 220-gallon hydraulic oil AST), and in Building B. Materials stored in these areas consisted of diesel, motor oil, waste oil, gasoline, grease, lubricant, gear oil, transmission oil, and parts cleaning solution. Hazardous materials consisting of



lubricating oils and greases for equipment were also stored in the office trailer on the Western Parcel.

Historical features associated with previous operations on the Site include two former petroleum 12,000-gallon USTs at the grain mill area, one former 12,000-gallon diesel UST east of Building C, and a former UST Area west of Building B. Historical operations, features, and reported septic systems are discussed further in Section 4.5. Figure 2 presents the locations of on-Site buildings and historical features.

## **2.4 ADJACENT AND SURROUNDING LAND USE**

Adjacent properties at the time of Farallon's site reconnaissance included a rail line to the north followed by industrial buildings occupied by home furnishing businesses Emser Tile at 5300 Shea Center Drive and Dorel Home Furnishings at 5400 Shea Center Drive; Praxair, Inc. to the east at 5735 East Airport Drive; East Airport Drive to the south followed by industrial buildings occupied by distribution businesses K-Mart Distributions at 5600 East Airport Drive and XPO Logistics, Inc. at 5200 East Airport Drive; and a Verizon facility to the west at 5351 East Airport Drive.

No visual evidence of recognized environmental conditions was observed on abutting or nearby properties during the site reconnaissance. Observations were restricted to areas readily observable from the Site.



### 3.0 PHYSICAL SETTING

The physical setting of the Site, including topography, geology, and hydrogeology, is described in this section. Farallon's assessment of sensitive receptors in the area also is discussed.

#### 3.1 TOPOGRAPHY

Farallon reviewed the U.S. Geological Survey (USGS) topographic maps for Guasti, California, dated 2018 and provided by Environmental Data Resources, Inc. (EDR). The maps depict the Site at an elevation of approximately 980 feet above mean sea level. Site topography slopes gently to the south. Regional topography generally is sloped to the south.

#### 3.2 GEOLOGY AND HYDROGEOLOGY

The Site is situated within the San Bernadino Valley of the Peninsular Ranges Geomorphic Province in Southern California. The Peninsular Range Province extends into lower California, and is bounded by the Colorado Desert to the east, the Pacific Ocean to the west and the San Gabriel and San Bernardino mountains to the north. The San Bernardino Mountains are located approximately 7 miles north of the Site. According to *The EDR Radius Map Report with GeoCheck* prepared for the Site by EDR dated December 9, 2021 (EDR Report), surface soil at the Site consists primarily of Delhi fine sand, which is somewhat excessively well drained.

According to the *Phase II Subsurface Investigation Report* dated August 16, 2016 by Partner Engineering and Science, Inc. (Partner) for the Site (Partner 2016 Phase II Report), soil beneath the Site generally consists of very fine grained, silty sand from the surface to depths of approximately 20 feet below ground surface (bgs) and transitions to very fine to coarse grained, poorly graded sand between depths of 20 and 25 feet bgs. Groundwater was not encountered during Partner's investigation.

Soil encountered during the Phase II ESA investigation portion of this scope of work was described as silty fine to medium sand to a total explored depth of 10 feet bgs, with an apparent coarse sand and gravel layer at 10 feet bgs (and as shallow as 5 feet bgs on the eastern portion of the Site at boring SB-2). Boring logs are attached in Appendix F. Groundwater was not encountered during drilling.

Site-specific groundwater direction and depth information was not available in the records reviewed. Based on information obtained from the California State Water Resources Control Board GeoTracker database (GeoTracker database) and topographic interpretation, groundwater beneath the Site is anticipated at a depth of approximately 250 bgs and is estimated to flow to the south.





### **3.3 OIL AND GAS RECORDS**

According to the California Department of Conservation, Geologic Energy Management Division Well Finder online database, there are no permitted oil or gas wells on the Site or at adjacent properties.

### **3.4 SENSITIVE RECEPTORS**

Farallon conducted a limited assessment of sensitive receptors on or in the vicinity of the Site that was confined to visually apparent features such as surface water bodies (e.g., low-lying wet areas, streams, ponds) and residential and recreational areas. Farallon's assessment of sensitive receptors included a review of readily ascertainable information relating to the presence of private, semiprivate, public, and industrial water-supply wells.

According to the EDR Report, a groundwater monitoring well maintained by the San Bernardino County Water Resources Division is located between 0.125 and 0.25 mile of the Site, and groundwater monitoring wells maintained by the San Bernardino County Water Resources Division and Department of Public Health are located within 0.25 and 0.5 mile of the Site. In addition, a public drinking water well is located within 0.25 and 0.5 mile of the Site. No wetlands are mapped on the Site, and the Site is not mapped in a floodplain. The major water body nearest the Site was identified as the Santa Ana River, located approximately 6 miles south of the Site.



## 4.0 USER-PROVIDED INFORMATION

Farallon understands that the user of this report, Prologis, is seeking to follow the standards set forth in ASTM E1527-13 and -21 to complete an environmental assessment of the Site. The user has specific responsibilities for fulfilling ASTM E1527-13 and -21 requirements to help identify the possibility of recognized environmental conditions in connection with the Site. These responsibilities do not require the technical expertise of an Environmental Professional, and were not performed by the Environmental Professional who conducted the Phase I ESA at the Site.

To facilitate fulfillment of the ASTM E1527-13 and -21 requirements identified below, Farallon provided Prologis with a copy of the *Phase I ESA User Questionnaire* (User Questionnaire) to complete. The User Questionnaire is provided in Appendix C of this Phase I ESA Report.

### 4.1 TITLE AND LIEN RECORDS

Prologis indicated that it was not aware of environmental liens against the Site.

### 4.2 EXPERIENCE AND SPECIALIZED KNOWLEDGE

Prologis indicated that it has no experience or specialized knowledge regarding the Site.

### 4.3 COMMONLY KNOWN INFORMATION

Prologis indicated that it is not aware of commonly known information that would lead to identification of recognized environmental conditions in connection with the Site.

### 4.4 PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT USERS

Prologis will rely on this Phase I ESA Report.

### 4.5 PREVIOUS ENVIRONMENTAL STUDIES

Farallon was provided with the following environmental documents prepared for the Site:

- *Phase I Environmental Site Assessment Report, The Scoular Company, 5355 East Airport Drive, Ontario, California 91761* dated August 18, 2016, prepared by Partner Engineering and Science, Inc. (Partner 2016 Phase I Report); and
- *Phase II Subsurface Investigation Report, 5355 East Airport Drive, Ontario, California 91761* dated August 16, 2016, prepared by Partner (Partner 2016 Phase II Report).

At the time of the Partner 2016 Phase I Report, the Site was developed as it is today and occupied by grain processing companies. Facility features and operations included the same buildings and grain processing equipment and procedures discussed in Section 2.3. Other features observed at the Site included bulk storage silos, a vehicle wash-down area with associated sheds in the northeastern portion of the Site, two subsurface grain conveyance systems in the northern portion



of the Site, and two maintenance areas within the office and warehouse building (Building A) and truck repair shop building (Building B). The maintenance area inside the truck repair shop (Building B) included a subsurface service pit for vehicle repairs; this pit was not observed during the Site visit due to the presence of stored equipment, but reported by the Site contact to be 4 feet wide by 25 to 30 feet long and between 4 and 5 feet deep. Domestic wastewater was reportedly disposed of by one or two septic systems. Information regarding the construction and locations of the septic systems was not provided from Site contacts. However, locations of the septic systems were speculated, based on previous reports, as being southeast of Building E and east of Building B. In 2016, a suspected septic system appears to have been located with ground-penetrating radar north of Building A, which could be in addition to or instead of previously reported septic system locations. Partner observed hazardous substances and petroleum products at the Site in hazardous material storage areas within Buildings A or B, which included antifreeze, motor oil, waste motor oil, grease, and waste grease. Three ASTs were located outside the northeastern corner of Building A, including one 85-gallon AST containing hydraulic oil, and two 250-gallon ASTs containing diesel fuel.

Previous investigations discussed in the Partner 2016 Phase I Report included four previous Phase I ESAs, three of which were prepared by Terracon Consultants, Inc. (Terracon), dated May 3, 2016, January 19, 2010, and May 5, 2009; and one of which was prepared by SECOR International Incorporated (SECOR), dated October 8, 2003 (SECOR 2003 Phase I Report). Only one of these reports was attached for Farallon's review: the 2016 Phase I Report by Terracon. Terracon did not identify recognized environmental conditions or controlled recognized environmental conditions in connection with the Site; however, a historical recognized environmental condition associated with total petroleum hydrocarbon (TPH) concentrations remaining in-place from a former UST was identified, based on a review of SECOR's 2003 Phase I Report. The SECOR 2003 Phase I Report was not included as an attachment in Terracon's report. The following information regarding SECOR's observations and findings was summarized in the Terracon 2016 Phase I Report. According to Terracon, SECOR did not identify recognized environmental conditions or historical recognized environmental conditions but noted several environmental concerns, including former USTs, the use of petroleum-impacted material as backfill following the removal of a UST, septic systems, and various wastewater and stormwater violations.

SECOR reported that four USTs were removed from the Site, including two 12,000-gallon USTs located north of the mill area, one 12,000-gallon UST located east of the former vegetable oil processing area, and one UST of unknown size located west of the former truck shop building (assumed as present-day Building B). This area was screened with ground-penetrating radar by Partner in 2016, and an assumed UST grave was identified beneath the overhang west of Building B.

Based on SECOR's review of records maintained by the San Bernardino County Fire Department (SBCFD), two 12,000-gallon USTs located north of the mill area were removed in 1989, and a letter issued by SBCFD on September 4, 1998 indicated "contamination remaining in the excavation is below that which is generally considered a problem and further investigation is not warranted." SECOR reported previous investigations were completed by Grisanti and Associates.



Soil samples were collected in the vicinity of a 12,000-gallon diesel UST located east of the “former vegetable oil processing” center, which was speculated by Partner to be located in the northern-central portion of the Site. Analytical results of soil samples indicated concentrations of TPH as diesel (TPH-d) up to 4,500 parts per million at a depth of 16 feet bgs. The 12,000-gallon diesel UST was removed in December 2002 and was granted regulatory closure from SBCFD on January 8, 2003.

During SECOR’s site reconnaissance, a former fueling island was reportedly observed west of the truck repair shop (Building B). According to SECOR, no records were available regarding this former UST. However, an undated permit application for two 4,000-gallon diesel USTs was found on file with SBCFD. Additionally, a permit to operate five USTs, dated February 25, 1988, included a handwritten note indicating that the “number of tanks was amended from five to four per signed-off job card.” In 2002, this area was investigated by Grisanti and Associates, who found concentrations of TPH-d at 11 parts per million at a depth of 15 feet bgs, and no detectable concentrations at a depth of 20 feet bgs. Farallon assumes that these tank graves were the anomalies identified by Partner under the Building B awning in 2016.

Based on a review of Santa Ana Regional Water Quality Control Board, SECOR found that stormwater discharge from the Site exceeded discharge permit limits in 2001 for pH, total suspended solids, oil and grease, total organic carbon, total Kjeldahl nitrogen, biological oxygen demand, copper, and/or zinc. A violation was issued by the Santa Ana Regional Water Quality Control Board in 2001 for the absence of a Storm Water Pollution Prevention Plan and a Storm Water Management Plan.

The Partner 2016 Phase I findings identified four recognized environmental conditions, two historical recognized environmental conditions, and four environmental issues. The four recognized environmental conditions relate to the statuses of a fourth or fifth UST located on the Site, based on conflicting database information and a lack of historical records available regarding the status and location of the USTs; surficial degradation and staining of asphalt around two 250-gallon diesel fuel ASTs; staining and historical use of petroleum products and hazardous materials in maintenance areas within Buildings A and B; and potential impacts associated with the vehicle wash-down area and drainage system, based on reported violations relating to wastewater runoff, poor housekeeping, and an anonymous complaint regarding the routine pouring of used oil into a drain in the vicinity of the vehicle wash-down area. The two historical recognized environmental conditions identified related to the following: the two former 12,000-gallon diesel USTs, which were removed in 1989 and received a No Further Action (NFA) determination issued by SBCFD; and one former 12,000-gallon diesel UST and associated dispenser, which were removed in 2002 and received an NFA determination issued by SBCFD. The four environmental issues identified relate to unknown locations of two on-Site septic systems; grain processing equipment and subsurface grain conveyance systems requiring lubrication oil; railroad spurs extending onto the Site that may have impacted the Site with pesticides, herbicides, and oils from rail line maintenance and/or construction; and potential asbestos-containing materials associated with the age of the buildings. Recommendations regarding these findings included a limited subsurface investigation to determine the presence or absence of soil and/or groundwater contamination due to the historical



use of the Site, and an operation and maintenance program to be implemented to safely manage the suspect asbestos-containing materials at the Site.

The Partner 2016 Phase II Report investigation completed at the Site included an assessment to identify former on-Site USTs or associated features, reported septic systems, and soil and soil gas sampling to assess for indications of a release from historical Site activities. A geophysical survey was completed to identify USTs remaining in-place, backfilled tankholds, septic tanks, and/or associated features, and to clear boring locations of utilities. One large anomaly, indicative of a backfilled excavation, was located under the western canopy of Building B, which generally corresponded to the location of the former USTs. There were no large metallic features identified, so Partner concluded that the USTs in this area had been removed. One large anomaly resembling a septic system was located north of Building A.

As part of the soil and soil gas investigation, 26 borings were advanced between depths of 1 and 25 feet bgs for the collection of soil and/or soil gas samples. Soil samples were analyzed for TPH carbon chain C6-C40 (TPH-cc) by U.S. Environmental Protection Agency (EPA) Method 8015C and volatile organic compounds (VOCs) by EPA Method 8260B; and soil gas samples were analyzed for VOCs by EPA Methods TO-15 and 8260B. No detectable concentrations of VOCs or TPH-cc were present in soil samples. Analytical results of soil gas samples indicated detections of VOCs including tetrachloroethene (PCE), trichloroethene, toluene, ethylbenzene, and xylenes. The concentrations of these detectable results were less than the residential and commercial/industrial calculated soil gas screening levels (SGSLs) at the time of the report. Partner concluded that there did not appear to be a discernable vapor intrusion condition to the Site, and the detections of VOCs in soil gas did not represent a threat to human health or the environment. Partner recommended no further investigation with respect to the on-Site grain handling facility at the time of the report.

Although the reported concentrations were less than regulatory criteria at the time of the report, the California Department of Toxic Substances Control *Human Health Risk Assessment Note Number 3* was updated in April 2020 to include the use of a more conservative attenuation factor of 0.03 in SGSL calculations. The 0.03 attenuation factor can be used to develop “low” level screening levels and can be used in conjunction with previously approved attenuation factors published in 2011 (known as “high” level screening levels). In comparison with the “low level” PCE SGSL, the PCE concentrations in soil vapor samples collected from five locations in 2016 exceeded the calculated soil gas commercial/industrial screening level of 67 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ). Additionally, in comparison with the “low level” ethylbenzene SGSL, the ethylbenzene concentration in one soil vapor sample exceeded the calculated soil gas commercial/industrial screening level of 163  $\mu\text{g}/\text{m}^3$ . These samples were located within and adjacent to Building B at a depth of 5 feet bgs.

No other reports were provided to Farallon for review.



## 5.0 SITE BACKGROUND AND HISTORY

Farallon reviewed the following historical sources as part of this Phase I/II ESA:

- Aerial photographs of the Ontario, California area dated 1938, 1948, 1953, 1959, 1966, 1975, 1985, 1990, 1994, 2002, 2005, 2009, 2012, and 2016 obtained from EDR;
- Cole Information Services, GTE, and Haines and Digital Business Directories of Ontario, California dated 1985, 1990, 1995, 1999, 2003, 2004, 2008, 2009, 2014, and 2017 obtained from EDR; and
- USGS topographic maps of Guasti, California dated 1897, 1900, 1903, 1941, 1944, 1953, 1954, 1966, 1973, 1976, 1981, 2012, 2015, and 2018 obtained from EDR.

A search for fire insurance maps resulted in notification that there was no coverage for the Site.

Farallon is not responsible for the accuracy or completeness of the historical sources reviewed. The historical sources documented were reasonably ascertainable and practically reviewable during this Phase I ESA. Historical sources are provided in Appendix D.

### 5.1 SITE

Topographic maps between 1897 and 1903 did not include significant detail regarding the Site. The Site was used as agricultural or grazing land from at least the late 1930s to the early 1970s. By 1973, the Eastern Parcel was developed with small grain storage silos and other features associated with milling operations in the grain mill area. In the 1975 aerial photograph, grain appeared to be stockpiled in the southwestern portion of the Site in Buildings A through C. Based on 1953, 1966, and 1981 topographic maps, Airport Drive was previously known as “Slover Avenue.” By 1985, the grain storage structures, Buildings D and E, were developed. By 2002, the Site appeared in its existing configuration. The 2002 aerial photograph shows grain processing operations had expanded at the Site to the Western Parcel, which included the development of three large grain storage silos. The Site has been occupied by Verhoeven from 1973 to the present; Chino Grain and Milling, Inc. in 1985; Coast Grain Company between 1990 and 2003; Scoular between 2004 and the present; and JD Heistell and Company in 2009.

Additional information regarding the Site history is provided in Section 6.1, On-Site Listings, and Section 7.0, Interviews.

### 5.2 ADJACENT PROPERTIES

The Site is bound by industrial properties to the north beyond the railroad tracks, industrial properties to the east and west, and industrial properties to the south across East Airport Drive.

Adjacent properties consisted primarily of undeveloped and/or agricultural land. Railroad tracks were present on the north-adjacent property from at least the early 1900s through the 1960s, when the east-adjacent property was developed with the existing industrial facility. By the early 1990s,



the south-adjacent property was developed with an industrial building. By the early 2000s, the west- and north-adjacent properties were developed with industrial buildings and have remained relatively unchanged through the present.

Additional information regarding adjacent properties is provided in Section 6.2, Adjacent and Other Facility Listings.



## 6.0 REGULATORY REVIEW

EDR conducted a review of environmental regulatory agency database listings to identify reported environmental issues related to the Site and facilities in the Site vicinity. Farallon used the greater of each approximate minimum search distance from the Site for each of the referenced federal and state environmental databases, as specified in ASTM E1527-13 and -21.

Farallon reviewed the results from the EDR Report prepared for the Site to note reported facilities in the vicinity of the Site that were considered to have a potential to adversely impact the Site (i.e., are known to have resulted in or are expected to result in a recognized environmental condition). Reported facilities identified in the EDR Report were evaluated with respect to the nature and extent of a given release, the distance of the reported facility from the Site, the stratigraphy of soil, the expected soil permeability, and the location of a reported facility with respect to known or expected local and/or regional groundwater flow direction.

The descriptions of the databases searched, the complete database names for the abbreviations used in this Phase I/II ESA Report, and the associated search distances from the Site are provided in the EDR Report presented in Appendix E.

### 6.1 ON-SITE LISTINGS

**JD Heiskell Holdings LLC**, former occupant of the Site, was identified on HAZNET, HWTS, CA FID UST, EMI, CIWQS, CERS, and WDS databases. The listings relate to hazardous material management, air quality permits, records of USTs, and industrial stormwater permits associated with livestock feed manufacturing operations. Hazardous wastes listed as being disposed of between 2003 and 2010 consisted of waste oil and mixed oil, aqueous solution with total organic residues less than 10 percent, other organic solvents, and asbestos-containing waste. No violations were identified in the listings. The listings for the USTs did not provide new information regarding contents, locations, and removal dates of the first-generation USTs.

**George Verhoeven Grain Inc.**, located on the Site, was identified on FINDS, ECHO, RCRA NonGen/NLR, EMI, and CIWQS databases. George Verhoeven Grain Inc. was identified in the CERS, AST, CERS HAZ WASTE, CERS TANKS, NPDES, and San Bern. Co. Permit databases (listed in the EDR Report under “Coast Grain Inc.”) The listings relate to hazardous material management, air quality permits, ASTs, and industrial stormwater permits associated with grain processing operations. The CERS TANKS listings indicated records of aboveground petroleum storage. No other information regarding ASTs was provided in the EDR database listings. The CERS listing indicated some administrative violations during inspections; however, there were no violations indicating a spill or a release occurred at the Site.





**The Scoular Company**, located on the Site, was identified as “John Powell,” a manager of Scoular, based on information obtained online, in the HAZNET and HWTS databases. The listings related to hazardous material management between 2006 and 2010. Hazardous wastes in the listing included other organic solids, waste oil and mixed oil, unspecified aqueous solution, and unspecified organic liquid mixture. No violations were identified in the listings.

**Coast Grain Inc./Coast Grain Company**, former occupant of the Site, was identified on UST, CERS HAZ WASTE, SWEEPS UST, WDS, EMI, HAZNET, and HWTS databases. The listings related to records of USTs, industrial stormwater permits, air quality permits, and hazardous waste management associated with grain processing operations. The SWEEPS UST listing indicated the Site had five registered USTs. No specific information regarding the ASTs or USTs, including tank capacity, contents, or status, was provided in the listings. See Sections 4.5 and 7.3 for further discussion regarding USTs at the Site. Hazardous wastes in the listing between 2002 and 2003 included tank bottom waste with halogenated organics.

**G&R Transportation**, a freight shipping and trucking company, according to online resources, was listed as being associated with the Site address and identified in the HAULERS database. No pertinent information or violations were identified in the listing. No current or historical information regarding tenants at the Site has indicated G&R Transportation occupied the Site, and this listing may be incorrectly associated with the Site.

Farallon searched the GeoTracker database and the California Department of Toxic Substances Control online EnviroStor database (EnviroStor database) for records related to the Site, but found no listings. Additional information regarding the Site is provided in Section 7.5, Interview with Regional Water Quality Control Board.

## 6.2 ADJACENT AND OTHER FACILITY LISTINGS

Reported facilities within 0.25 mile up-gradient, 0.125 mile cross-gradient, or adjacent down-gradient of the Site with respect to the assumed groundwater flow direction are considered to have a potential to have impacted the Site. Facilities that were listed in the EDR Report but not identified as a reported facility (e.g., a facility listed as a hazardous waste generator but not as having had a release), and facilities that were listed as “Closed” were not considered to have a potential to have impacted the Site.

**Praxair, Inc./Union Carbide Corp./Linde Inc./Kenan Advantage Group/Old Dominion Freight Line**, at 5735 and 5705 East Airport Drive, east-adjacent to and cross-gradient of the Site with respect to assumed groundwater flow direction, were identified in the San Bern. Co. Permit, HIST UST, EMI, RCRA NonGen/NLR, UST, RCRA-SQG, LUST, CERS HAZ WASTE, CERS TANKS, TRIS, Cortese, NPDES, CIWQS, CERS, HWTS, AST, SWEEPS UST, CA FID UST, HIST CORTESE, NPDES, WDS, and/or CPS-SLIC databases. The listings relate to records of ASTs, USTs, industrial stormwater permits and discharge, air quality permits, hazardous materials management, and a leaking UST case that was granted case closure status in 1988. The LUST listing under Union Carbide Corp indicated solvents from a leaking UST had impacted soil. The listing indicated a case closure status as of September 7, 1988. HIST UST listings associated with



Union Carbide Corporation indicate the facility has or had between two and 18 registered USTs on the property. One HIST UST listing indicated two 1,000-gallon USTs used for waste were installed in 1975. The other HIST UST listing indicated 18 USTs or subsurface features were registered at the property, including four 10,000-gallon USTs and one 12,000-gallon UST used for diesel fuel; eight unlined concrete or carbon steel sumps used for sulfuric acid, chlorpyrifos (chromate), silica, sodium hydroxide, sodium bichromate, and/or waste oil; one 1,000-gallon UST used for waste oil; one 8,000-gallon UST used for unleaded fuel; one 6,000-gallon UST used for motor oil; and two 500-gallon USTs used for waste oil. No information regarding the status of the USTs or subsurface features was provided in the listings. Hazardous wastes in listings included ignitable waste, corrosive waste, reactive waste, chromium, lead, and spent nonhalogenated solvents. No other listing except for the one associated with the leaking UST case indicated a release had occurred at the property. A number of administrative violations associated with inspections were indicated in the San Bern. Co. Permit database listings. No information was provided in the violation listings that indicated a release had occurred at the property. Based on the status, depth to groundwater, and location of the property at a cross-gradient direction from the Site, no evidence was found to indicate that this property represents a recognized environmental condition in connection with the Site.

**K-Mart Distribution Center/Ontario Distribution Center/Costco Wholesale/Costco Logistics**, at 5600 East Airport Drive, located beyond Airport Drive, south-adjacent to and down-gradient of the Site with respect to assumed groundwater flow direction, was identified in the LUST, SWEEPS UST, HIST UST, Cortese, HIST CORTESE, CERS, CA FID UST, EMI, NPDES, WDS, CIWQS, RCRA NonGen/NLR, AST, HAZNET, San Bern. Co. Permit, HWTS, RCRA-SQG, and RCRA-LQG databases. The listings relate to records of USTs, ASTs, industrial stormwater permits, hazardous materials management, and a leaking UST case. According to the SWEEPS UST and HIST UST listings, three USTs were installed on the property, including two 15,000-gallon diesel USTs and one 2,000-gallon unleaded fuel UST. Information obtained from the GeoTracker database indicated a leaking UST containing diesel fuel impacted soil at the property in 1992. The case was granted case closure status in 1993. Based on the status, depth to groundwater, and location of the property at a down-gradient direction from the Site, this property does not represent a recognized environmental condition in connection with the Site.

### 6.3 UNMAPPABLE LISTINGS

EDR identified six facilities as “unplottable” that EDR was unable to map due to inaccurate or inadequate address information. Farallon did not identify any of the unplottable facilities in the immediate vicinity of the Site. Therefore, the unplottable facilities located do not represent a recognized environmental condition in connection with the Site.



## 7.0 INTERVIEWS

Farallon conducted interviews with individuals familiar with the Site and contacted relevant local governmental agencies to obtain additional Site information. The responses from the parties contacted are provided below.

### 7.1 INTERVIEW WITH SITE REPRESENTATIVE

During the site reconnaissance, Farallon interviewed Randy Verhoeven of Verhoeven, and Steve Schennum of Scoular on January 13, 2022. The following information was obtained from this interview:

- No known USTs are present at the Site;
- Hazardous materials on the Site generally consist of diesel fuel, hydraulic fluid, gear oil, transmission oil, waste oil, and cleaning solvent;
- Utilities and natural gas are provided by the local municipality and gas company; and
- The maintenance area inside the truck repair shop (Building B) included a subsurface service pit for vehicle repairs; this pit was not observed during the Site visit due to the presence of stored equipment, but reported by the Site contact to be 4 feet wide by 25 to 30 feet long and between 4 and 5 feet deep.

Randy Verhoeven and Steve Schennum stated that they had not been made aware of any pending, threatened, or past:

- Litigation relevant to hazardous substances or petroleum products in, on, or from the Site;
- Administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the Site; or
- Notices from a governmental entity regarding violations of environmental laws or liability relating to hazardous substances or petroleum products.

### 7.2 INTERVIEW WITH CITY

Farallon submitted a written information request to the City of Ontario on December 23, 2021 to inquire whether records of inspections, notices of violations and/or reported hazardous spills, building files, permits, wastewater discharge permits, and/or USTs for the Site were on file. On January 26, 2022, the City of Ontario provided Farallon with over 150 pages of files for the Site address related to building permits, City fire department inspections (for signage/fire safety violations), stormwater, and tenant improvement information. No information related to processing or storage locations, septic systems, or hazardous material use for the Site was found in the file.



### 7.3 INTERVIEW WITH THE COUNTY

Farallon submitted a written information request for records from SBCFD on December 16, 2021. SBCFD is the Certified Unified Program Agency for San Bernardino County, and maintains most records pertaining to hazardous substance use, storage, and waste generation; USTs and ASTs; hazardous substance inspections, and unauthorized releases. SBCFD allowed Farallon to copy files for Cast Grain Milling, Verhoeven, and Scoular at the Site addresses. In general, files were related to generator/handler information, USTs, and permit information. Pertinent files are summarized below.

#### Cast Grain Milling

In the letter regarding Removal of Two Underground Storage Tanks at 5355 Airport, Ontario dated September 4, 1998, from SBCFD, it was noted that a July 25, 1989 Babcock & Sons, Inc. report was reviewed by SBCFD and that contamination remaining after excavation is “below that which is generally considered a problem and further investigation is not warranted.” No further information was in the file regarding the USTs and locations; however, Farallon has determined that SBCFD is likely referring to the two 12,000-gallon fueling USTs noted in previous reports as formerly located north of the grain mill.

A 2001 SBCFD inspection indicated similar quantities of automotive fluids and oils generated as wastes at the Site. It was also noted that a “parts washer” was present in the “Vehicle Maintenance Division,” but the solvent used was not noted. It was also noted that molasses silos were in use at the Site, and a molasses storage tank was noted in the vicinity of the truck-washing area (containing molasses truck rinse water used as pig feed). A hazardous waste inventory dated 2001 noted perchloroethylene and trichloroethylene related to the parts washer, but volumes and locations were not noted.

In 2002, Tank Specialists of California removed a 12,000-gallon diesel steel UST and fuel dispenser mapped southeast of Building C. According to the letter regarding Soil Sampling Following the Removal of an Underground Storage Tank – Coast Grain Co., 5355 E. Airport Drive, Ontario, California dated December 18, 2002, from Advanced GeoEnvironmental, Inc., three confirmatory soil samples were collected beneath the bottom of the UST after removal, and soil samples were collected from stockpiles. The soil samples were analyzed for TPH-d; benzene, toluene, ethylbenzene, and xylenes; and methyl tertiary-butyl ether. Minor petroleum impacts were noted in stockpiled soil (800 milligrams per kilogram of TPH-d), which was reportedly used as backfill for the excavation. No constituents of concern were detected in the confirmatory soil samples collected from beneath the UST. Advanced GeoEnvironmental, Inc. recommended that SBCFD Hazardous Materials Division issue closure of the UST, and the letter regarding Removal of One Underground Storage Tank at Coast Grain Inc., Located at 5355 E. Airport Drive, Ontario, California dated January 8, 2002, from SBCFD was issued indicating that further investigation was not warranted. Farallon considers this UST a historical recognized environmental condition for the Site.

#### George Verhoeven Grain Inc.



Generator files dated 2016 through 2019 were maintained with SBCFD that noted the use and generation of automotive fluids and wastes on the Site. Violations were noted as requiring the completion of a Spill Prevention, Control, and Countermeasure plan and a business plan. Hazardous waste inventories noted oils and welding gases; no solvents were noted.

#### The Scoular Company

Generator files dated 2010 were maintained with SBCFD that noted the use and generation of automotive fluids and wastes on the Site. No violations were noted. Operations were noted as discontinued in 2011 (although Farallon noted Scoular active at the Site during the 2022 site reconnaissance).

### **7.4 INTERVIEW WITH SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**

Farallon accessed online records available from South Coast Air Quality Management District on January 26, 2022. South Coast Air Quality Management District maintains records for five facilities associated with the Site address: Chino Grain & Milling Inc. (ID 3037); Coast Grain Company (ID 52930); Unicorn, LLC (ID 131542); George Verhoeven Grain Inc. (ID 163123); and The Scoular Company (ID 17251). A summary of the files is provided below.

#### Chino Grain & Milling Inc. (ID 3037)

The online file indicates that the Chino Grain & Milling Inc. facility is out of business, and contained equipment for storage and dispensing of gasoline and milling operations including amine regeneration, livestock feed rolling, cyclone, bulk loading of trucks, and livestock feed pelletizing. No violations were noted, and no documents could be found related to the storage or dispensing of gasoline in the online files.

#### Coast Grain Company (ID 52930)

The online file indicates that the Chino Grain Company facility was sold, and contained equipment for livestock feed rolling, cyclone, bulk loading of trucks, livestock feed pelletizing, storage tank livestock feed, service station storage and dispensing of gasoline, afterburner, boiler, baghouse, and emission reduction. No violations were noted, and no documents could be found related to the storage or dispensing of gasoline in the online files.

#### Unicorn, LLC (ID 131542)

The online file indicates that the Unicorn LLC facility was sold, and contained equipment for railroad car unloading grains. No violations were noted.

#### George Verhoeven Grain Inc. (ID 163123)

The online file indicates that the Verhoeven facility was active, and contained equipment for livestock feed rolling, cyclone, bulk loading of trucks, and a boiler. One violation was noted on September 4, 2012 that was in compliance by September 19, 2012; the nature of the violation was not captured in the record.



### The Scoular Company (ID 17251)

The online file indicates that the Scoular facility was active, and contained equipment for rail car unloading. No violations were noted.

## **7.5 INTERVIEW WITH REGIONAL WATER QUALITY CONTROL BOARD**

Farallon received files available from the Santa Ana Regional Water Quality Control Board (Water Board) on December 27, 2021. Water Board records included information regarding a former brine disposal pond associated with the boilers at the grain mill area. A summary of files is provided below.

A brine disposal pond owned by the Union Pacific Railroad Company and used by the Coast Grain Company for boiler blow-down water was installed in 1969 and removed in 1998 to allow for the addition of a rail line north of the grain mill area. According to the letter regarding Approval of Closure Report for the Brine Disposal Pond, Coast Grain Company, Ontario, California dated September 24, 1999, from the Water Board, the closure of the pond included the removal of approximately 7,500 cubic yards of salt-contaminated soil and placement of a 40-mil high-density polyethylene liner. Miscellaneous analytical data available in the Water Board file indicated that soil was analyzed for pH, with no elevated readings noted. Based on mapping provided in the Water Board file, the pond was located south of the Southern Pacific Railroad Main Line between two sets of rail spurs; it appears to be just north of the current property line. However, a survey would be required to understand the northern property line in relation to the former brine disposal pond. Based on the location and nature of use (boiler blow-down), and the location of the former brine pond in the vicinity of the northern property line, this is considered a data gap for this report. In the event that the former brine pond is located off-Site, it would be considered a de minimis condition for the Site.



## 8.0 SITE RECONNAISSANCE

Farallon conducted a site reconnaissance on January 13, 2022 to observe the Site for physical evidence of recognized environmental conditions. The methodology used for the site reconnaissance and the observations made during the reconnaissance are discussed below. A description of the Site is provided in Section 2.2, Site Description. Photographs taken during the site reconnaissance are presented in Appendix B.

### 8.1 SITE RECONNAISSANCE METHODOLOGY

Farallon completed a walk around the entire perimeter of the Site and viewed interior operations.

There were no deviations from ASTM E1527-13 or -21 during the Phase I ESA, with the exception of additional environmental services requested by Prologis.

Limiting conditions encountered during this Phase I ESA were the presence of active and decommissioned equipment and vehicles on exterior portions of the Site that prevented Farallon from observing the entire ground surface of the Site, and the presence of equipment in the Site buildings that prevented Farallon from observing entire interior floor surfaces. Based on information obtained from the Site representative, historical records, previous reports, and data obtained during the subsurface investigation conducted in March 2022, these limiting conditions are not expected to alter the conclusions of this report.

### 8.2 SITE RECONNAISSANCE OBSERVATIONS

Weather conditions at the time of the reconnaissance were overcast, with a temperature of approximately 70 degrees Fahrenheit. No weather-related Site-access restrictions were encountered during the reconnaissance. Operations at the Site at the time of the reconnaissance were observed to be consistent with operations as described in Section 2.3, Site Operations.

#### 8.2.1 Interior Observations

Farallon's observations of the interior of the Site buildings during the site reconnaissance are documented in the table below. Comments pertaining to notable interior observations follow in Section 8.2.2. Photographs taken during the site reconnaissance are provided in Appendix B.

INTERIOR OBSERVATIONS	YES	NO
Odor		X
Heating/Cooling System	X	
Drain(s) and/or Sump(s)		X
Staining and/or Corrosion		X
Storage Tank(s), Vent Pipe(s), Fuel Port(s), and/or Fill Pipe(s)		X



INTERIOR OBSERVATIONS	YES	NO
Clarifier(s)		X
Discharge Area		X
Drum(s) and/or Other Container(s)		X
Pool(s) of Liquid		X
Automobile Lift(s)		X
Monitoring Well(s)		X
Hazardous Material(s) and/or Petroleum Product(s)	X	
Hazardous Waste	X	
Other	X	

## 8.2.2 Interior Observation Comments

### Heating/Cooling System

The Site buildings are primarily unconditioned. Electrical window air-conditioning units were observed in select office/administrative areas.

A natural-gas-powered boiler unit is present within the grain mill, and provides steam for the steam jackets. The grain mill is also equipped with a fan-cooled cooling area. No other heating systems were observed in the buildings.

### Hazardous Material(s) and/or Petroleum Product(s)

Hazardous substances stored within the Building A warehouse on the Eastern Parcel included small quantities of oils and automotive fluids. The materials were observed to be stored on pallets, with no staining or other evidence of a significant release.

Hazardous substances stored within Building B on the Eastern Parcel included two 55-gallon used oil drums; two 25-gallon grease carts; and a parts washer attached to a 55-gallon drum of Shellsol D43, a petroleum hydrocarbon-based mineral spirit. The materials were observed to be stored on pallets, with no staining or other evidence of a significant release.

Hazardous substances within a fire cabinet in the Western Parcel office trailer included two 5-gallon gasoline canisters. Additional materials stored outside of the fire cabinet included ten 5-gallon pails containing truck lubricants, gear oil, and hydraulic oil; one 25-gallon grease cart; and one 5-gallon pail containing grease. The materials were observed to be stored on pallets, with no staining or other evidence of a significant release.





## Hazardous Waste

Hazardous wastes stored within the Building A warehouse on the Eastern Parcel included four 55-gallon drums of waste oil, five 25-gallon drums of waste oil, and approximately 20 five-gallon waste oil pails. The materials were observed to be stored on pallets, with no staining or other evidence of a significant release.

## Other

The maintenance area inside the truck repair shop (Building B) included a subsurface service pit for vehicle repairs; this pit was not observed during the Site visit due to the presence of stored equipment, but reported by the Site contact to be 4 feet wide by 25 to 30 feet long and between 4 and 5 feet deep.

### 8.2.3 Exterior Observations

Farallon’s observations of the exterior of the Site during the site reconnaissance are documented in the table below. Comments pertaining to notable exterior observations follow in Section 8.2.4. Photographs taken during the site reconnaissance are provided in Appendix B.

EXTERIOR OBSERVATIONS	YES	NO
Odor		X
Staining and/or Corrosion	X	
Storage Tank(s), Vent Pipe(s), and/or Fuel Port(s)	X	
Drum(s) and/or Other Container(s)		X
Pool(s) of Liquid		X
Hazardous Material(s) and/or Petroleum Product(s)		X
Hazardous Waste		X
Pit(s), Pond(s), and/or Lagoon(s)		X
Stressed Vegetation		X
Solid (Nonhazardous) Waste—Evidence of Dumping		X
Wastewater		X
Domestic Water	X	
Water Well(s)		X
Septic/Sewer System	X	
Stormwater	X	
Transformer(s)	X	



<b>EXTERIOR OBSERVATIONS</b>	<b>YES</b>	<b>NO</b>
Significant Amount of Fill Material		X
Other	X	

#### **8.2.4 Exterior Observation Comments**

##### **Staining and/or Corrosion**

Farallon observed incidental petroleum staining on several areas of the Site, generally near petroleum product storage areas. No drains, sumps, clarifiers, or other potential subsurface conduits were observed in these areas. The staining is considered de minimis and does not constitute a recognized environmental condition.

##### **Storage Tank(s), Vent Pipe(s), and/or Fuel Port(s)**

Four ASTs were present on the Site:

- Two 250-gallon, reportedly double-walled diesel ASTs within secondary containment. These ASTs are located on the northeastern exterior border of Building A and are used for fueling tractors and forklift equipment. One of the ASTs is used by Verhoeven, and the other by Scoular.
- One 220-gallon, reportedly double-walled hydraulic oil AST located on the northeastern exterior border of Building A. This AST is used to provide new hydraulic oil for equipment operation and maintenance.
- One 499-gallon, single-walled propane AST located east of Building C.

The ASTs were observed to be in good condition with de minimis staining to nearby concrete pads, and no evidence of a significant release.

##### **Domestic Water**

Domestic water is supplied to the Site buildings by the City of Ontario.

##### **Septic/Sewer System**

Sanitary sewage generated at the Site discharges to three or four on-Site septic systems, two or three of which are located on the Eastern Parcel and one of which is located on the Western Parcel. The estimated locations of the septic tanks and leach fields on the Eastern Parcel are identified on Figure 2. Property personnel on the Western Parcel were unaware of the location of the septic systems.

Because on-Site septic systems appear to be used for domestic sewer, with limited hazardous material use in the proximity that could be introduced to the septic systems as a release pathway, the presence of the septic systems at Building E, Building A, and on the Western Parcel is considered a de minimis condition for the Site. Because the septic system east of Building B is



connected to a building that has been subject to the use and release of chlorinated solvents, this septic system is considered a recognized environmental condition in connection with the Site.

### **Stormwater**

Stormwater is removed from the Site via direct permeation through gravel-paved surfaces, and via concrete swale and paved surfaces to Airport Boulevard.

### **Transformer(s)**

Three pad-mounted transformers were observed on the Site on the Western Parcel. No staining or leakage was observed in the vicinity of the transformers. Based on the good condition of the equipment, the transformers are not expected to represent a significant environmental concern.

An underground grain conveyance system is located within the grain mill area. Details of the underground system, including how grain is moved or whether hydraulic systems are present, was not provided to Farallon.

The presence of transformers, with no evidence or report of leaking, and underground grain conveyance systems are considered de minimis conditions for the Site. In the event that the conveyance systems are hydraulic and determined to have leaked, this conclusion should be reevaluated.

### **Other**

The Eastern Parcel is equipped with a vehicle wash-down area with sump north of Building B, which is asphalt-paved and bermed, and was previously used for truck washing. Property personnel report that truck exteriors were washed in this area on an infrequent basis, and no undercarriage/chassis or engine washing was conducted on the Site. The wash area is equipped with a lined sump connected to an approximately 10,000-gallon AST via underground piping. The AST was empty at the time of the Site visit. Personnel report that the water tank has not been used in at least 11 years. Given the nature of use and that wash water was routed to an AST with no discharge, the vehicle wash-down area is considered a de minimis condition for the Site.

Rail spurs are present along the northern property boundary. Based on available mapping, it cannot be confirmed whether the rail spurs are located on the Site or to the north, which is a data gap for this report. Because of the nature of the conveyance of the rail spurs (for moving grain), the presence of rail spurs within or along the northern property boundary is considered a de minimis condition for the Site. If the spurs are determined to be on the Site, this conclusion should be reevaluated, as creosote and oils in rail spurs can lead to surficial releases to soil.



## **9.0 ADDITIONAL ENVIRONMENTAL SERVICES**

At the request of Prologis, Farallon conducted environmental services in addition to those specified in ASTM E1527-13 and -21. These services are considered non-scope items, and are not required to satisfy ASTM E1527-13 and -21.

### **9.1 WETLANDS**

Wetlands are defined jointly by EPA and the U.S. Army Corps of Engineers as “those areas that are inundated or saturated by surface or groundwater for a duration and frequency sufficient to support and under normal circumstances do support a prevalence of vegetation adapted for life in saturated soil conditions.” According to the EDR Report, wetlands are not present on the Site.

### **9.2 ASBESTOS**

In June 1978, EPA initiated a ban on the use of asbestos-containing material in spray application products such as structural fireproofing and acoustic ceilings, pipe lagging, joint compounds, and spackles. Based on the construction date of the Site buildings of approximately 1973, asbestos-containing materials may be present at the Site.

### **9.3 LEAD-BASED PAINT**

In 1978, EPA initiated a ban on the manufacture and use of lead-based paints. Based on the construction date of the Site buildings of approximately 1973, lead-based paint may be present at the Site.

### **9.4 WATER SUPPLY/LEAD IN DRINKING WATER**

Based on the Site buildings’ construction date of approximately 1973, it is possible that lead solder was used during construction of plumbing fixtures.

### **9.5 RADON**

Radon is a colorless, tasteless, radioactive gas with an EPA-specified action level of 4.0 picocuries per liter of air. Radon gas has a short half-life of 3.8 days. The health risk potential of radon is associated with its rate of accumulation within confined areas, particularly those near or in the ground such as basements, where vapors can readily transfer from the ground to indoor air through foundation cracks or other pathways.

According to the EDR Report, the Site is in EPA Radon Zone 2, with predicted average indoor screening levels of between 2.0 and 4.0 picocuries per liter. The EPA zone designation reflects the average short-term radon measurement that can be expected to be measured in a building without implementation of radon-control methods. Based on the EPA designation, radon is unlikely to pose an environmental concern to Site occupants.



## 9.6 WATER INTRUSION

Farallon inspected visually accessible building materials for evidence of water damage during the site reconnaissance. No visible evidence of water-damaged building materials was observed. Farallon did not detect high-humidity areas in the buildings that would suggest moisture concerns.



## **10.0 PHASE II ESA**

In March 2022, Farallon conducted soil and soil vapor sampling at the Site to assess former UST areas and septic systems, and the new building footprint for the potential for vapor intrusion issues. The scope of work for the Phase II ESA portion of this assessment included the advancement of 12 borings and installation of 10 temporary soil vapor probe locations with single- or multi-depth nested vapor points for the collection of soil and soil vapor samples.

The general scope of work was proposed and authorized in the letter regarding Proposal for Subsurface Investigation, 5355 East Airport Drive, Ontario, California dated February 14, 2022, from Kathy Lehnus and Scott Allin of Farallon to Julia Smith of Prologis.

Sample locations are provided on Figures 2 and 3, with limited analytical data presented on Figure 3. Sampling rationale and analytical data from the sampling are included in Tables 1 through 5.

### **10.1 PERMITTING**

No permitting was required for this work.

### **10.2 HEALTH AND SAFETY**

Prior to conducting field investigation activities, a health and safety plan compliant with the requirements of the Occupational Safety and Health Act of 1970 and 8 CCR 3203 was prepared. Additionally, in accordance with Farallon health and safety policy, personal protection equipment precautions related to COVID-19 were implemented for field personnel during field activities.

Prior to commencement of drilling activities, Farallon marked the proposed boring locations at the Site and contacted Dig Alert for public utility notice. Farallon also engaged a private utility location service to screen the proposed boring locations for utilities that may be encountered during advancement with hand tools and direct-push drilling.

### **10.3 GEOPHYSICAL SURVEY**

Farallon oversaw the completion of a geophysical survey at several areas at the Site to attempt to locate former UST areas and reported septic tank areas. No underground structures were found in the survey areas, with the exception of two connected septic tanks northeast of Building B: one north of the building and one east of the building. A vapor point was advanced at the northern septic tank (SVP-10). The septic system east of the building was not accessible (in fenced area). It could not be determined whether the two septic tanks were connected.

### **10.4 BORING LOCATIONS AND SAMPLING RATIONALE**

Borings SB-1 and SVP-1 were advanced in the vicinity of the two former 12,000-gallon petroleum USTs on the northern portion of the Site to confirm conditions at the former USTs and assess soil vapor beneath the proposed building footprint. Borings SVP-2, SVP-3, and SVP-4 were advanced



on the central portion of the Site to assess soil vapor beneath the proposed building footprint. Borings SB-2 and SVP-5 were advanced in the vicinity of the former 12,000-gallon petroleum USTs on the central-eastern portion of the Site to confirm conditions at the former UST and assess soil vapor beneath the proposed building footprint. Boring SVP-6 was advanced at the vehicle wash-down area with sump to assess this area and the soil vapor beneath the proposed building footprint. Borings SVP-7, SVP-8, and SVP-9 were advanced west of Building B, and sub-slab points SS-1 and SS-2 were advanced beneath Building B to assess former PCE impacts encountered in soil vapor in these areas. Boring SVP-10 was advanced to the northwest of Building B to assess the likely location of the septic system associated with the building. Boring locations and rationale are presented in Table 1.

## **10.5 BORING ADVANCEMENT AND SOIL SAMPLING**

For health and safety reasons, the borings were advanced using a hand auger to a depth of 5 feet bgs and subsequently completed to target (or attainable) depths with a direct-push drill rig. Concrete and asphalt coverings were cored prior to advancing the borings. Soil encountered during the investigation was described as silty fine to medium sand to a total explored depth of 10 feet bgs, with an apparent coarse sand and gravel layer at 10 feet bgs (and as shallow as 5 feet bgs on the eastern portion of the Site at boring SB-2). Groundwater was not encountered during drilling.

The soils were visually inspected and screened by a Farallon Scientist using a photoionization detector and were described and logged using the United Soil Classification System (Modified). No elevated photoionization detector readings or visual or olfactory evidence of a release were documented during the sampling activities.

Select soil samples were submitted under standard chain-of-custody protocols to Jones Environmental, Inc. of Santa Fe Springs, California for analysis of VOCs by EPA Method 8260 and TPH as gasoline (TPH-g) by EPA Method 8015M using EPA Method 5035 for preservation. In addition, select soil samples were analyzed for the presence of TPH as diesel (TPH-d) and TPH as oil (TPH-o) by EPA Method 8015M, and for California Administration Manual metals by EPA Method 6010B. The full soil sampling schedule is provided in Table 1.

## **10.6 SOIL VAPOR PROBE CONSTRUCTION AND SAMPLING**

A total of 14 soil temporary soil vapor probes were installed in 10 soil vapor borings at locations SVP-1 through SVP-10. In general, soil vapor probes were installed at a depth of 4 feet bgs throughout the proposed building footprint, with some deeper probes installed at depths of 8 and 10 feet bgs to assess targeted deeper potential source areas. Soil vapor probe final installation depths are provided in Table 1.

On March 11, 2022, soil gas probe installation was performed in accordance with the *Advisory: Active Soil Gas Investigations* dated July 2015, prepared by the California Environmental Protection Agency (Soil Gas Advisory). The probes consisted of an Airstone microporous vapor implant (or equivalent) connected to 0.25-inch-outside-diameter Nylaflow tubing, finished at the surface with temporary plugs. The annulus around the vapor implant was backfilled with



approximately 0.5 foot of screen-washed No. 3 sand, followed by 6 inches of hydrated granular bentonite to create a seal from the top of the sand to near surface.

The soil gas probes were allowed to equilibrate for 1 week prior to sample collection. Farallon contracted with Jones Environmental Inc. of Santa Fe Springs, California to perform soil gas sampling and analyze samples with its on-Site mobile laboratory. Prior to sample collection, a shut-in test was conducted in accordance with Section 4.2.1 of the Soil Gas Advisory; purging was conducted in accordance with Section 4.2.3 of the Soil Gas Advisory.

The soil vapor samples were collected into glass syringes at a rate of no more than 200 milliliters per minute. A mixture of n-pentane, n-hexane, and n-heptane was used as tracer compounds, which was applied to rags and set at each sample fitting during sample collection; the tracer compounds were not detected in the sub-slab soil vapor samples.

## 10.7 SUMMARY OF SOIL SAMPLING RESULTS

Soil analytical results are summarized below with a comparison with the Los Angeles Regional Water Quality Control Board Maximum Soil Screening Levels for properties with groundwater at a depth greater than 150 feet bgs (for TPH in soil), and with the California Department of Toxic Substances Control (DTSC) CA-Modified Regional Screening Levels (RSLs) and EPA RSLs (in the event that DTSC CA-Modified RSLs are not available) for industrial soil (for metals in soil). Soil sampling results are summarized as follows:

- No TPH or VOCs were detected exceeding laboratory detection limits in the soil samples collected from the Site.
- Low concentrations of naturally occurring metals including barium, cadmium, cobalt, chromium, copper, nickel, lead, vanadium, and zinc were detected in two soil samples submitted for analysis (location SVP-6 from depths of 4 and 8 feet bgs). These concentrations were considerably less than screening levels.

Soil analytical results are tabulated in Tables 2 through 4. Soil analytical reports are attached in Appendix G.

## 10.8 SUMMARY OF SOIL VAPOR SAMPLING RESULTS

Soil vapor analytical results from the Phase II ESA are summarized below. These results were compared with DTSC calculated SGSLs using CA-Modified RSLs or EPA RSLs for indoor air with an attenuation factor of 0.03 or 0.001 for commercial/industrial settings, with an attenuation factor of 0.05 used for sub-slab soil vapor samples.

- PCE was detected in several of the soil vapor samples collected from the Site, as indicated below:
  - PCE was detected in sub-slab soil vapor at concentrations of 220 and 170  $\mu\text{g}/\text{m}^3$ , exceeding calculated screening levels.





- PCE was detected at concentrations ranging between 24 and 247  $\mu\text{g}/\text{m}^3$  in soil gas samples collected from the soil vapor borings west and northwest of Building B (SVP-5, SVP-7, SVP-8, and SVP-9). The concentrations of PCE in soil vapor samples exceeded the calculated screening level using the 0.03 attenuation factor (but were less than the less conservative attenuation factor) in three of the four samples at the targeted 4-foot investigation zone.
  - PCE was detected in shallow soil vapor in central and eastern portions of the planned building slab area at concentrations less than calculated screening levels.
  - The soil vapor sample collected from a depth of 10 feet bgs at SVP-1 at the two former 12,000-gallon diesel USTs at the grain mill area contained PCE at a concentration of 157  $\mu\text{g}/\text{m}^3$ , exceeding the calculated screening level using the 0.03 attenuation factor (but less than the less conservative attenuation factor). Shallow soil vapor from this area contained PCE at considerably less concentrations than the calculated screening level using the 0.03 attenuation factor.
- A trace concentration of dichlorodifluoromethane was detected exceeding laboratory reporting limits in soil vapor sample SVP-10-8; however, this concentration (60  $\mu\text{g}/\text{m}^3$ ) did not exceed the Industrial SGSL and was not found in other samples.
  - Low concentrations of toluene were detected at concentrations exceeding laboratory reporting limits in the soil vapor samples collected at the Site; however, none of these concentrations exceeded the Industrial SGSL for toluene (as high as 1,300,000  $\mu\text{g}/\text{m}^3$ ). The maximum toluene concentration was reported as 106  $\mu\text{g}/\text{m}^3$ .
  - No other VOCs were detected at concentrations exceeding laboratory reporting limits.

The results for the soil gas samples are considered valid because the tracer compounds were not detected in the samples.

Based on the sampling results, PCE has been documented in soil vapor in the vicinity of Building B at concentrations exceeding screening levels, and PCE is also present in central and eastern portions of the Site in shallow zones at concentrations less than calculated screening levels.

Soil vapor analytical results are summarized in Table 5. Soil vapor analytical reports are attached in Appendix G.

## 10.9 WASTE HANDLING DISPOSAL

Soil cuttings and decontamination water were accumulated into one 55-gallon drum. The drum was sampled and is currently being profiled for disposal. Waste disposal information can be forwarded when available.



## 11.0 SUMMARY AND CONCLUSIONS

Farallon conducted a Phase I/II ESA for 5355 East Airport Drive in Ontario, California in conformance with the scope and limitations of ASTM E1527-13 and -21. Any exceptions to or deletions from this practice are described in Section 1.5, Deviations.

The Phase I ESA indicated that the Site consists of two parcels totaling 14.2 acres: Assessor Parcel No. 0238-052-20 (Eastern Parcel), and Assessor Parcel No. 0238-052-29 (Western Parcel). The Site is occupied by George Verhoeven Grain Inc. (dba Verhoeven Grain Inc.) and The Scoular Company, grain processing companies. Operations consist of the processing of raw grain, which is received by truck or by rail from the rail line north of the Site. The exact location of the rail line and associated spurs with respect to the northern Site boundary could not be confirmed in available files. Former petroleum USTs in two areas, former and active septic systems, and a vehicle maintenance garage (Building B) were found in association with the Site during the Phase I ESA portion of this assessment.

According to the Partner 2016 Phase II Report, 26 borings were advanced at depths between 1 and 25 feet bgs for the collection of soil and/or soil gas samples. Analytical results of soil gas samples indicated detections of VOCs including tetrachloroethene, trichloroethene, toluene, ethylbenzene, and xylenes. The concentrations of these detectable results were less than the residential and commercial/industrial calculated SGSLs at the time of the report beneath and west of Building B. However, the concentrations of PCE detected in five of the six soil gas samples contained PCE exceeding current commercial/industrial calculated SGSLs; these samples were collected from beneath and west of building B. Additionally, in comparison with the “low level” ethylbenzene SGSL, the ethylbenzene concentration in one soil vapor sample from this area exceeded the calculated soil gas commercial/industrial screening level of  $163 \mu\text{g}/\text{m}^3$ .

In March 2022, Farallon conducted soil and soil vapor sampling at the Site to assess former UST areas and septic systems, and the new building footprint for the potential for vapor intrusion issues. No underground structures were found in the survey, with the exception of the two septic tanks northeast of Building B. The scope of work for the Phase II ESA portion of this assessment included the advancement of 12 soil borings and installation of 10 temporary soil vapor probe locations with single- or multi-depth nested vapor points and two sub-slab soil vapor sampling points for the collection of soil and/or soil vapor samples. The Phase II ESA portion of this assessment was conducted on March 4 and 11, 2022.

No TPH or VOCs were detected exceeding laboratory detection limits in the soil samples collected from the Site. Low concentrations of naturally occurring metals including barium, cadmium, cobalt, chromium, copper, nickel, lead, vanadium, and zinc were detected in two soil samples submitted for analysis; these concentrations were considerably less than screening levels.

Based on sub-slab soil vapor data, soil vapor beneath the slab at Building B contains PCE exceeding calculated screening levels. PCE is present west of Building B at concentrations exceeding current calculated industrial screening levels using the 0.03 attenuation factor, but less than screening levels using the less conservative attenuation factors. PCE was also detected in



shallow soil vapor in the central and eastern portions of the Site at concentrations less than calculated screening levels in the shallow zones assessed. One concentration of PCE was detected exceeding calculated screening levels in the deeper sample collected from the vicinity of the two former 12,000-gallon USTs north of the grain mill area; the shallow soil vapor collected from this boring did not contain PCE exceeding calculated screening levels. The extent of PCE in soil vapor was not fully characterized.

Based on review of the Site history, including subsurface investigation reports, interviews with persons knowledgeable about the Site, reconnaissance of the Site, review of regulatory agency lists, and the completion of subsurface investigation at the Site, this Phase I/II ESA identified the following recognized environmental condition in connection with the Site:

- PCE impacts potentially associated with the use and storage of hazardous materials at Building B could contribute to vapor intrusion conditions on the Site.

In addition, Farallon identified the following historical recognized environmental conditions in association with the Site:

- Previous environmental reports note that one or more USTs were historically located west of Building B. Farallon was not able to find information regarding the UST in regulatory files, but did find some information regarding three to four diesel and unleaded gasoline USTs ranging in capacity from 4,000 to 10,000 gallons at unspecified locations at the Site preceding the presence of the three known 12,000-gallon USTs (noted in the grain mill area and southeast of Building C). In 2016, Partner conducted a subsurface investigation in this area and did not identify evidence of a petroleum release.
- In 2002, Tank Specialists of California removed a 12,000-gallon diesel steel UST and fuel dispenser mapped southeast of Building C. According to the letter regarding Soil Sampling Following the Removal of an Underground Storage Tank – Coast Grain Co., 5355 E. Airport Drive, Ontario, California dated December 18, 2002, from Advanced GeoEnvironmental, Inc., three confirmatory soil samples were collected beneath the bottom of the UST after removal, and soil samples were collected from stockpiles. The soil samples were analyzed for TPH as diesel; benzene, toluene, ethylbenzene, and xylenes; and methyl tertiary-butyl ether. Minor petroleum impacts were noted in stockpiled soil (800 milligrams per kilogram of TPH as diesel), which was reportedly used as backfill for the excavation. No constituents of concern were detected in the confirmatory soil samples collected from beneath the UST. Advanced GeoEnvironmental, Inc. recommended that SBCFD Hazardous Materials Division issue closure of the UST; and the letter regarding Removal of One Underground Storage Tank at Coast Grain Inc., Located at 5355 E. Airport Drive, Ontario, California dated January 8, 2002, from SBCFD was issued indicating that further investigation was not warranted.
- Based on sampling conducted as part of this Phase I/II ESA, no release was found in connection with the two 12,000-gallon “fuel storage” USTs historically located at the grain mill, which were removed from the Site in 1998. A No Further Action determination issued by SBCFD indicated that residual impacts were present, although “below that which is



generally considered a problem.” PCE was detected in a shallow soil vapor sample collected from this area at a concentration less than calculated screening levels.

The vehicle wash-down area located north of Building B was used for washing trucks (including molasses transportation trucks) and is no longer used. According to Site personnel, only truck exteriors were washed (not engines). Given the nature of use and that wash water was routed to an AST, with no discharge, the vehicle wash-down area is considered a de minimis condition for the Site. No release was found in the vicinity of the septic tanks located east of Building B, which provides a disposal pathway for a building that is known to have used chlorinated solvents and vehicular fluids.

Because two or three potential on-Site septic systems on the Western Parcel, located north of Building A and southeast of Building E, appear to be used for domestic sewer, with limited hazardous material use in the proximity that could be introduced to the septic systems as a release pathway, the presence of those septic systems is considered a de minimis condition for the Site. Additionally, the presence of petroleum ASTs with secondary containment and/or no evidence of leaking, rail spurs within or along the northern property boundary, transformers with no evidence of leaking, and underground grain conveyance systems are considered de minimis conditions for the Site. Further, based on the location and nature of use (boiler blow-down), the former brine pond located in the vicinity of the northern property line is also considered a de minimis condition for the Site.

At the request of Prologis, Farallon has included additional opinions and recommendations for the Site beyond those specified in ASTM E1527-13 and -21 for de minimis and recognized environmental conditions.

Based on the findings from this Phase I/II ESA, Farallon recommends preparation of a Media Management Plan for use during Site redevelopment to address any unexpected impacts to soil associated with historical activities at the Site, and to address any issues related to the former brine pond, underground grain conveyance systems, septic systems, and former USTs at the Site. Additionally, because PCE has been documented in soil vapor in the vicinity of Building B at concentrations exceeding calculated screening levels, and PCE was detected at concentrations in shallow soil vapor less than the calculated RSLs in other soil gas samples collected at the Site, the potential for vapor intrusion issues into the planned new Site building should be addressed. Additional investigation and characterization are recommended to delineate and design mitigation measures for PCE in soil vapor that may impact indoor air in the future building.



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## 13.0 LIMITATIONS

### 13.1 GENERAL LIMITATIONS

The conclusions contained in this report/assessment are based on professional opinions with regard to the subject matter. These opinions have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location. The conclusions contained herein are subject to the following inherent limitations:

- **Accuracy of Information.** Farallon obtained, reviewed, and evaluated certain information used in this report/assessment from sources that were believed to be reliable. Farallon's conclusions, opinions, and recommendations are based in part on such information. Farallon's services did not include verification of its accuracy or authenticity. Should the information upon which Farallon relied prove to be inaccurate or unreliable, Farallon reserves the right to amend or revise its conclusions, opinions, and/or recommendations.
- **Reconnaissance and/or Characterization.** Farallon performed a reconnaissance and/or characterization of the Site that is the subject of this report/assessment to document current conditions. Farallon focused on areas deemed more likely to exhibit hazardous materials conditions. Contamination may exist in other areas of the Site that were not investigated or were inaccessible. Site activities beyond Farallon's control could change at any time after the completion of this report/assessment.

For the foregoing reasons, Farallon cannot and does not warrant or guarantee that the Site is free of hazardous or potentially hazardous substances or conditions, or that latent or undiscovered conditions will not become evident in the future. Farallon's observations, findings, and opinions can be considered valid only as of the date of the report.

This report/assessment has been prepared in accordance with the contract for services between Farallon and Prologis, Inc. and currently accepted industry standards. No other warranties, representations, or certifications are made.

### 13.2 LIMITATION ON RELIANCE BY THIRD PARTIES

**Reliance by third parties is prohibited.** This report/assessment has been prepared for the exclusive use of Prologis, Inc. to address the unique needs of Prologis, Inc. at the Site at a specific point in time.

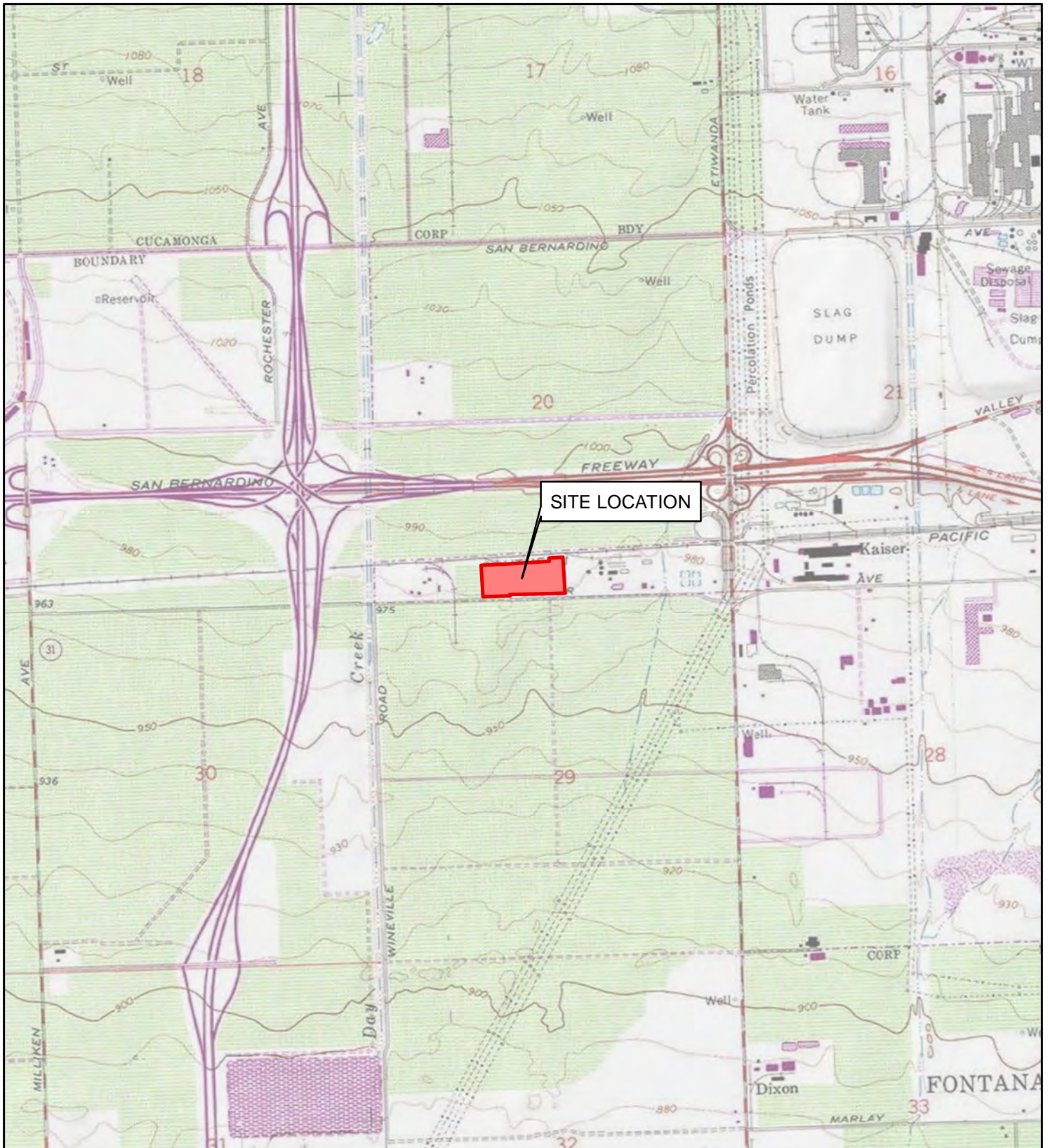
This is not a general grant of reliance. No one other than Prologis, Inc. may rely on this report unless Farallon agrees in advance to such reliance in writing. Any unauthorized use, interpretation, or reliance on this report/assessment is at the sole risk of that party, and Farallon will have no liability for such unauthorized use, interpretation, or reliance.



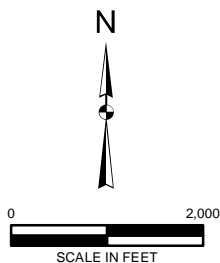
## **FIGURES**

**PHASE I/PHASE II  
ENVIRONMENTAL SITE ASSESSMENT REPORT  
5355 East Airport Drive  
Ontario, California**

**Farallon PN: 1071-080 (Task 2)**



REFERENCE: 7.5 MINUTE USGS QUADRANGLE GUASTI, CALIFORNIA, DATED 2013



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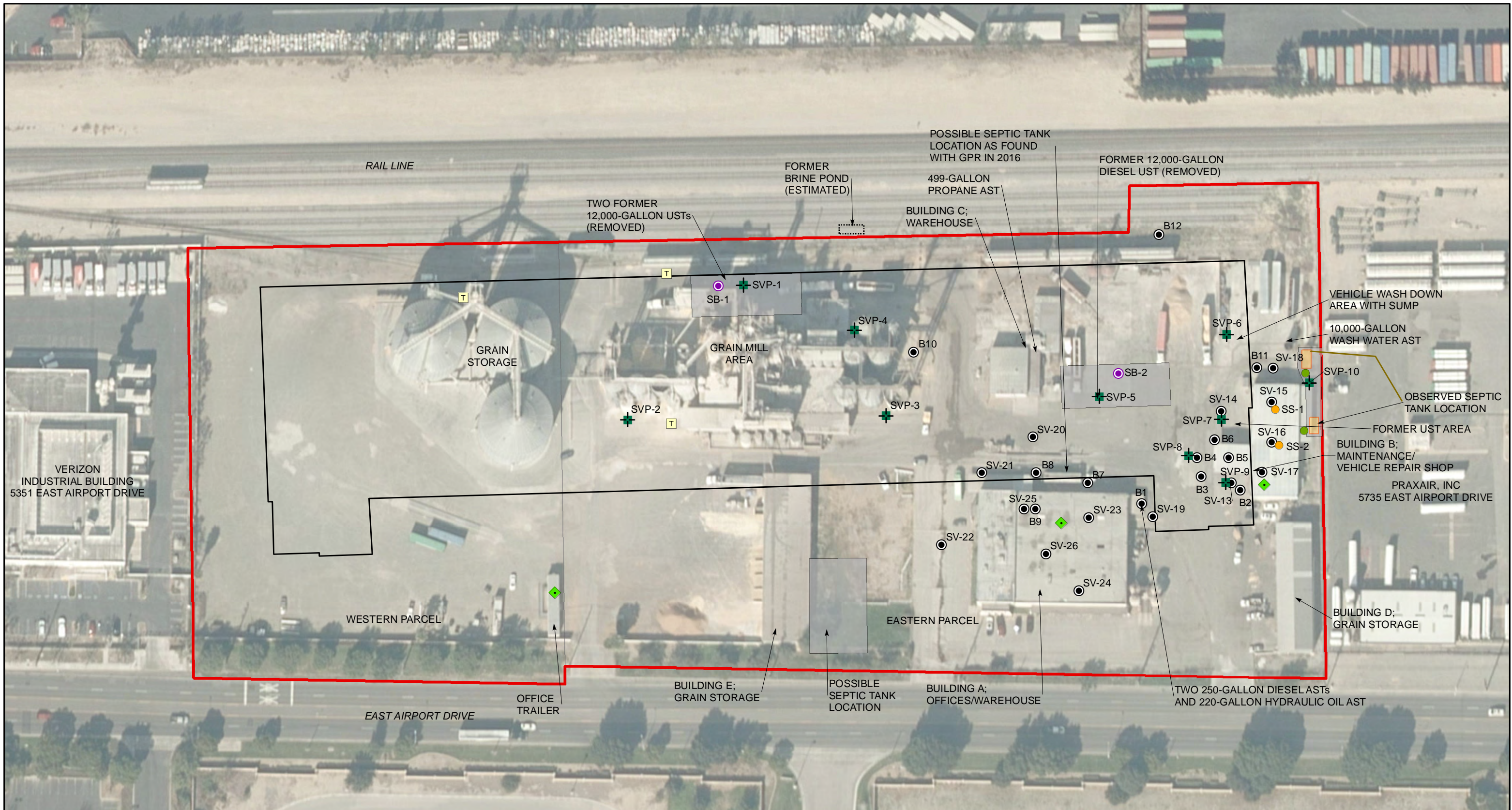
Washington  
Issaquah | Bellingham | Seattle

Oregon  
Portland | Baker City

California  
Oakland | Irvine

**FIGURE 1**  
SITE VICINITY MAP  
5355 EAST AIRPORT DRIVE  
ONTARIO, CALIFORNIA

Drawn By: sgaynier      Checked By: HH      Date: 12/23/2021      Disc Reference: Q:\Projects\1071 Prologis\080 2021 SoCal Due Diligence II\002 Airport Dr\Mapfiles\Ph1\Figure-01\_SiteVicinity.mxd

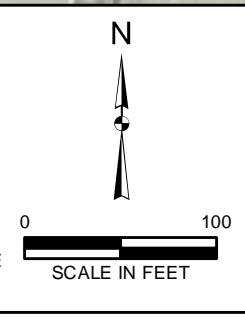


- LEGEND**
- + SOIL VAPOR PROBE (FARALLON, 2022)
  - GRAB SAMPLE (FARALLON, 2022)
  - BORING (FARALLON, 2022)
  - BORING (PARTNER, 2016)
  - ◆ HAZARDOUS MATERIALS STORAGE AREA
  - SEPTIC TANK
  - T TRANSFORMER

- FORMER SITE FEATURE
- OBSERVED TANK LOCATION
- GROUND-PENETRATING RADAR SCAN AREA
- PROPOSED BUILDING FOOTPRINT
- SITE BOUNDARY
- SAN BERNARDINO COUNTY PARCEL BOUNDARY

GPR SURVEY AREA - 2022 (NO UST FOUND)  
 GPR = GROUND-PENETRATING RADAR  
 UST = UNDERGROUND STORAGE TANK  
 AST = ABOVEGROUND STORAGE TANK

NOTES:  
 1. ALL LOCATIONS ARE APPROXIMATE.  
 2. FIGURES WERE PRODUCED IN COLOR.  
 GRAYSCALE COPIES MAY NOT REPRODUCE ALL ORIGINAL INFORMATION.



Washington  
Issaquah | Bellingham | Seattle

Oregon  
Portland | Baker City

California  
Oakland | Irvine

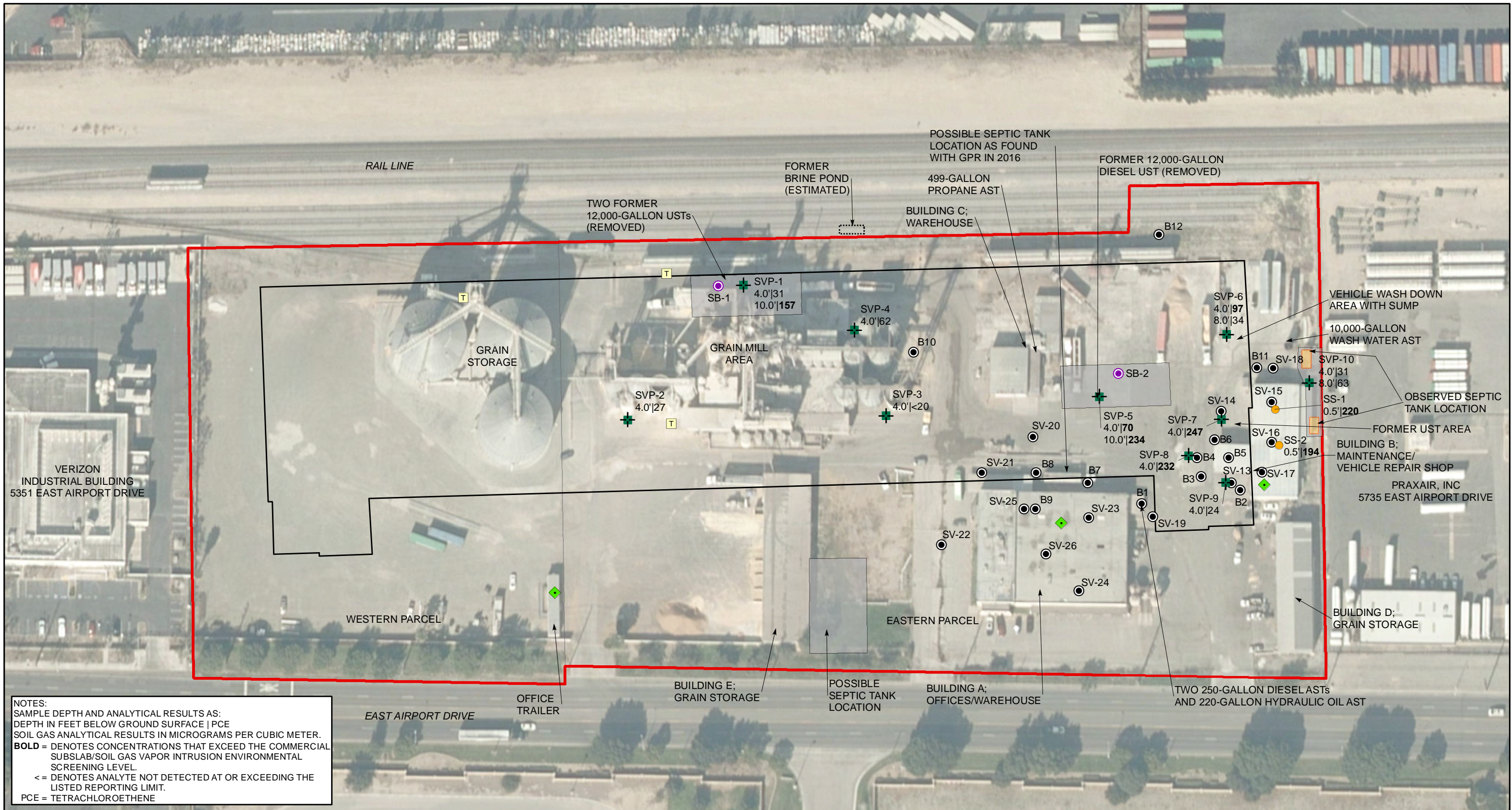
Drawn By: jjones      Checked By: KL      Date: 3/24/2022

**FIGURE 2**

**SITE PLAN AND SAMPLING LOCATIONS**  
 5355 EAST AIRPORT DRIVE  
 ONTARIO, CALIFORNIA

FARALLON PN: 1071-080-002

Disc Reference:  
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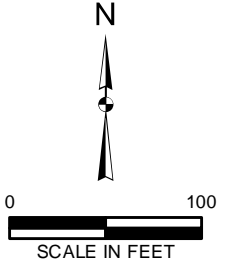


NOTES:  
 SAMPLE DEPTH AND ANALYTICAL RESULTS AS:  
 DEPTH IN FEET BELOW GROUND SURFACE | PCE  
 SOIL GAS ANALYTICAL RESULTS IN MICROGRAMS PER CUBIC METER.  
**BOLD** = DENOTES CONCENTRATIONS THAT EXCEED THE COMMERCIAL  
 SUBSLAB/SOIL GAS VAPOR INTRUSION ENVIRONMENTAL  
 SCREENING LEVEL.  
 <= DENOTES ANALYTE NOT DETECTED AT OR EXCEEDING THE  
 LISTED REPORTING LIMIT.  
 PCE = TETRACHLOROETHENE

LEGEND	
	SOIL VAPOR PROBE (FARALLON, 2022)
	GRAB SAMPLE (FARALLON, 2022)
	BORING (FARALLON, 2022)
	BORING (PARTNER, 2016)
	HAZARDOUS MATERIALS STORAGE AREA
	TRANSFORMER
	FORMER SITE FEATURE
	PROPOSED BUILDING FOOTPRINT
	OBSERVED TANK LOCATION
	GROUND-PENETRATING RADAR SCAN AREA
	SITE BOUNDARY
	SAN BERNARDINO COUNTY PARCEL BOUNDARY

GPR SURVEY AREA - 2022 (NO UST FOUND)  
 GPR = GROUND-PENETRATING RADAR  
 UST = UNDERGROUND STORAGE TANK  
 AST = ABOVEGROUND STORAGE TANK

NOTES:  
 1. ALL LOCATIONS ARE APPROXIMATE.  
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**FIGURE 3**

PCE IN SOIL VAPOR  
 5355 EAST AIRPORT DRIVE  
 ONTARIO, CALIFORNIA

FARALLON PN: 1071-080-002

Disc Reference:  
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## **TABLES**

**PHASE I/PHASE II  
ENVIRONMENTAL SITE ASSESSMENT REPORT  
5355 East Airport Drive  
Ontario, California**

**Farallon PN: 1071-080 (Task 2)**

**Table 1**  
**Sampling Rationale**  
**5355 East Airport Road**  
**Ontario, California**  
**Farallon PN: 1071-080-002**

Sample ID	Location	Rationale	Matrix Sampled	Boring Depth (feet bgs)	Sample Depth and Analysis (feet bgs)		
SB-1	Former 12,000-gallon petroleum USTs (two)*	To assess former USTs and assess the potential for soil vapor under the future building	Soil	10	10 feet VOCs, TPH		
SVP-1			Soil		10 feet VOCs, TPH		
			Soil Vapor		4 feet VOCs, TPH-g 10 feet VOCs, TPH-g		
SVP-2	Planned New Building Footprint	Assess the potential for soil vapor under the future building	Soil	4	4 feet VOCs, TPH-g		
SVP-3			Soil Vapor		4 feet VOCs, TPH-g		
			SVP-4	Soil	4	4 feet VOCs, TPH-g	
Soil Vapor				4 feet VOCs, TPH-g			
SB-2			Former 12,000-gallon diesel UST east of Building C	To assess the former UST and assess the potential for soil vapor under the future building	Soil	10	10 feet VOCs, TPH
SVP-5					Soil		10 feet VOCs, TPH
	Soil Vapor	4 feet VOCs, TPH-g 10 feet VOCs, TPH-g					
SVP-6	Vehicle wash-down area with sump	To assess the vehicle wash-down area with sump and assess the potential for soil vapor under the future building	Soil	8	4 feet VOCs, TPH, Metals 8 feet VOCs, TPH, Metals		
			Soil Vapor		4 feet VOCs, TPH-g 8 feet VOCs, TPH-g		
SVP-7	Former PCE impacts	Assess the potential for soil vapor under the future building	Soil	4	4 feet VOCs, TPH		
			Soil Vapor		4 feet VOCs, TPH-g		
SVP-8	Former PCE impacts	Assess the potential for soil vapor under the future building	Soil	4	4 feet VOCs, TPH		
			Soil Vapor		4 feet VOCs, TPH-g		
SVP-9	Former PCE impacts	Assess the potential for soil vapor under the future building	Soil	4	4 feet VOCs, TPH		
			Soil Vapor		4 feet VOCs, TPH-g		
SVP-10	Building B Septic System	Assess the Building B Septic System	Soil	8	8 feet VOCs, TPH		
			Soil Vapor		4 feet VOCs, TPH-g 8 feet VOCs, TPH-g		
SS-1	Former PCE impacts	Assess current subslab conditions under Building B and to assess the potential for soil vapor under the future building	Soil Vapor	SS	0.5 foot VOCs, TPH-g		
SS-2	Former PCE impacts		Soil Vapor	SS	0.5 foot VOCs, TPH-g		

NOTES:  
SS = subslab  
TPH = total petroleum hydrocarbons  
TPH-g = total petroleum hydrocarbons as gasoline  
UST = underground storage tank

VOCs = volatile organic compounds  
bgs = below ground surface  
PCE = tetrachloroethene

**Table 2**  
**Summary of Volatile Organic Compounds in Soil**  
**5355 East Airport Road**  
**Ontario, California**  
**Farallon PN: 1071-080-002**

Sample Location	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	Analytical Results (micrograms per kilogram) <sup>2</sup>					
				Tetrachloroethene	Benzene	Toluene	Ethylbenzene	Total Xylenes	Other VOCs
SB-1	SB-1-10'	10.0	3/4/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	ND
SB-2	SB-1-10'	10.0	3/4/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	ND
SVP-1	SVP-1-10'	10.0	3/4/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	ND
SVP-2	SVP-2-4'	4.0	3/4/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	ND
SVP-3	SVP-3-4'	4.0	3/4/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	ND
SVP-4	SVP-4-4'	4.0	3/4/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	ND
SVP-5	SVP-5-10'	10.0	3/4/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	ND
SVP-6	SVP-6-4'	4.0	3/4/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	ND
	SVP-6-8'	8.0	3/4/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	ND
SVP-7	SVP-7-4'	4.0	3/4/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	ND
SVP-8	SVP-8-4'	4.0	3/4/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	ND
SVP-9	SVP-9-4'	4.0	3/4/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	ND
SVP-10	SVP-10-8'	8.0	3/4/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	ND
<b>Commercial/Industrial Soil RSL<sup>3</sup></b>				<b>2,700</b>	<b>1,400</b>	<b>5.3E+06</b>	<b>25,000</b>	<b>2.5E+06</b>	<b>NA</b>

**NOTES:**

Results in **bold** and highlighted **yellow** denote concentrations exceeding applicable RSLs for the current property use (industrial/commercial).

< denotes analyte not detected at or exceeding the reporting limit listed.

<sup>1</sup>Depth in feet below ground surface.

<sup>2</sup>Analyzed by U.S. Environmental Protection Agency (EPA) Method 8260B. Only detected VOCs shown in table; see lab report for full list of analytes.

<sup>3</sup>June 2020 Department of Toxic Substances Control (DTSC) Regional Screening Levels (RSLs). If DTSC RSLs do not exist, April 2020 EPA RSLs were used and noted in blue text.

NA = not applicable

ND = not detected above the laboratory reporting limit

NE = not established

RSL = Regional Screening Level

VOCs = volatile organic compounds

**Table 3**  
**Summary of Total Petroleum Hydrocarbons in Soil**  
**5355 East Airport Road**  
**Ontario, California**  
**Farallon PN: 1071-080-002**

Sample Location	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	Analytical Results (milligrams per kilogram) <sup>2</sup>		
				TPH-g (C4 - C12)	TPH-d (C13 - C22)	TPH-o (C23 - C40)
SB-1	SB-1-10'	10.0	3/4/2022	< 0.20	< 10.0	< 10.0
SB-2	SB-1-10'	10.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-1	SVP-1-10'	10.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-2	SVP-2-4'	4.0	3/4/2022	< 0.20	---	---
SVP-3	SVP-3-4'	4.0	3/4/2022	< 0.20	---	---
SVP-4	SVP-4-4'	4.0	3/4/2022	< 0.20	---	---
SVP-5	SVP-5-10'	10.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-6	SVP-6-4'	4.0	3/4/2022	< 0.20	< 10.0	< 10.0
	SVP-6-8'	8.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-7	SVP-7-4'	4.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-8	SVP-8-4'	4.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-9	SVP-9-4'	4.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-10	SVP-10-8'	8.0	3/4/2022	< 0.20	< 10.0	< 10.0
<b>MSSL (&lt; 20 feet Above Groundwater)<sup>3</sup></b>				<b>100</b>	<b>100</b>	<b>1,000</b>
<b>MSSL (20-150 feet Above Groundwater)<sup>3</sup></b>				<b>500</b>	<b>1,000</b>	<b>10,000</b>
<b>MSSL (&gt; 150 feet Above Groundwater)<sup>3</sup></b>				<b>1,000</b>	<b>10,000</b>	<b>50,000</b>

**NOTES:**

Results in **bold** and highlighted **yellow** denote concentrations exceeding applicable RSLs for the current property use (industrial/commercial).

< denotes analyte not detected at or exceeding the reporting limit listed.

--- denotes sample not analyzed.

<sup>1</sup>Depth in feet below ground surface.

<sup>2</sup>Analyzed by U.S. Environmental Protection Agency (EPA) Method 8015M.

<sup>3</sup>Los Angeles Regional Water Quality Control Board April 27, 2004 MSSLs for groundwater at depths of less than 20 feet, 20 to 150 feet, and greater than 150 feet below ground surface.

C = carbon range (number of carbons)

MSSL = maximum soil screening level

TPH-d = total petroleum hydrocarbons as diesel

TPH-g = total petroleum hydrocarbons as gasoline

TPH-o = total petroleum hydrocarbons as oil



**Table 4**  
**Summary of Metals in Soil**  
**5355 East Airport Road**  
**Ontario, California**  
**Farallon PN: 1071-080-002**

Sample Location	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	Analytical Results (milligrams per kilogram) <sup>2</sup>									
				Barium	Cadmium	Chromium	Cobalt	Copper	Lead	Nickel	Vanadium	Zinc	Other Metals
SVP-6	SVP-6-4'	4.0	3/4/2022	61.2	0.9	8.2	5.2	5.9	1.1	5.2	24.6	26.5	ND
	SVP-6-8'	8.0	3/4/2022	59.6	0.9	8.5	5.2	6.0	1.2	5.2	23.1	27.0	ND
<b>Residential Soil RSL<sup>3</sup></b>				<b>15,000</b>	<b>2,100</b>	<b>NE</b>	<b>23</b>	<b>3,100</b>	<b>80</b>	<b>15,000</b>	<b>390</b>	<b>23,000</b>	Various
<b>Industrial Soil RSL<sup>3</sup></b>				<b>220,000</b>	<b>9,300</b>	<b>NE</b>	<b>350</b>	<b>47,000</b>	<b>320</b>	<b>64,000</b>	<b>1,000</b>	<b>350,000</b>	Various

NOTES:

Results in **bold** and highlighted **yellow** denote concentrations exceeding applicable RSLs for the current property use (industrial/commercial).

< denotes analyte not detected at or exceeding the reporting limit listed.

--- denotes sample not analyzed.

<sup>1</sup>Depth in feet below ground surface.

<sup>2</sup>California Administrative Manual (CAM) Priority Pollutant List (PPL) 17 metals analyzed by U.S. Environmental Protection Agency (EPA) Method 6010B by 3050B; mercury analyzed by EPA Method 7471A.

<sup>3</sup>June 2020 Department of Toxic Substances Control (DTSC) Regional Screening Levels (RSLs). If DTSC RSLs do not exist, May 2020 EPA RSLs were used and noted in blue text.

**Table 5**  
**Summary of Volatile Organic Compounds in Soil Vapor**  
**5355 East Airport Road**  
**Ontario, California**  
**Farallon PN: 1071-080-002**

Sample Location	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	AF	Analytical Results (micrograms per cubic meter) <sup>2</sup>				
					PCE	Dichloro difluoro-methane	Toluene	TPH-g	Other VOCs
<b>Sub-slab Samples</b>									
SS-1	SS-1	0.5	3/11/2022	---	<b>220</b>	< 40	< 20	< 5,000	ND
SS-2	SS-2	0.5	3/11/2022	---	<b>194</b>	< 40	< 20	< 5,000	ND
<b>Industrial SGSL For Sub-Slab<sup>3</sup></b>				<b>0.05</b>	<b>40</b>	<b>8800</b>	<b>26000</b>	<b>50000</b>	<b>Varies</b>
<b>Soil Vapor Samples</b>									
SVP-1	SVP-1-4'	4.0	3/11/2022	---	<b>31</b>	< 40	<b>21</b>	< 5,000	ND
	SVP-1-10'	10.0	3/11/2022	---	<b>157</b>	< 40	<b>21</b>	< 5,000	ND
SVP-2	SVP-2-4'	4.0	3/11/2022	---	<b>27</b>	< 40	<b>34</b>	< 5,000	ND
SVP-3	SVP-3-4'	4.0	3/11/2022	---	< 20	< 40	<b>78</b>	< 5,000	ND
	SVP-3-4'REP	4.0	3/11/2022	---	< 20	< 40	<b>45</b>	< 5,000	ND
SVP-4	SVP-4-4'	4.0	3/11/2022	---	<b>62</b>	< 40	<b>80</b>	< 5,000	ND
	SVP-4-4'REP	4.0	3/11/2022	---	<b>57</b>	< 40	<b>46</b>	< 5,000	ND
SVP-5	SVP-5-4'	4.0	3/11/2022	---	<b>70</b>	< 40	<b>83</b>	< 5,000	ND
	SVP-5-10'	10.0	3/11/2022	---	<b>234</b>	< 40	< 20	< 5,000	ND
SVP-6	SVP-6-4'	4.0	3/11/2022	---	<b>97</b>	< 40	<b>106</b>	< 5,000	ND
	SVP-6-8'	8.0	3/11/2022	---	<b>34</b>	< 40	<b>65</b>	< 5,000	ND
SVP-7	SVP-7-4'	4.0	3/11/2022	---	<b>247</b>	< 40	<b>91</b>	< 5,000	ND
SVP-8	SVP-8-4'	4.0	3/11/2022	---	<b>232</b>	< 40	<b>89</b>	< 5,000	ND
SVP-9	SVP-9-4'	4.0	3/11/2022	---	<b>24</b>	< 40	<b>87</b>	< 5,000	ND
SVP-10	SVP-10-4'	4.0	3/11/2022	---	<b>31</b>	< 40	<b>60</b>	< 5,000	ND
	SVP-10-8'	8.0	3/11/2022	---	<b>63</b>	<b>60</b>	<b>47</b>	< 5,000	ND
<b>Industrial SGSL For Soil Vapor<sup>3</sup></b>				<b>0.001</b>	<b>2000</b>	<b>440000</b>	<b>1,300,000</b>	<b>2,600,000</b>	<b>Varies</b>
<b>Calculated SGSL with 2015 Attenuation Factor (Industrial)<sup>3</sup></b>				<b>0.03</b>	<b>67</b>	<b>14667</b>	<b>43,333</b>	<b>86,667</b>	<b>Varies</b>

**NOTES:**

Results in **bold** denote concentrations detected above the laboratory reporting limit. Results in **bold** and highlighted **yellow** denote concentrations exceeding applicable RSLs for the current property use (industrial/commercial).  
 < denotes analyte not detected at or exceeding the reporting limit listed.  
 --- denotes not applicable

<sup>1</sup>Depth in feet below ground surface.

<sup>2</sup>Analyzed by U.S. Environmental Protection Agency (EPA) Method 8260B. Only detected VOCs shown in table; see lab report for full list of analytes.

<sup>3</sup>Calculated soil gas screening levels (SGSLs) were derived by dividing the April 2020 Department of Toxic Substances Control (DTSC) or June 2021 EPA Regional Screening Levels (shown in blue) for VOCs, and January 2019 SFBWQCB Environmental Screening Levels (ESLs) for TPH-g for indoor air by the noted attenuation factor.

ND = not detected at or above the laboratory reporting limit  
 PCE = Tetrachloroethylene  
 AF = Attenuation Factor

**APPENDIX A**  
**PROFESSIONAL QUALIFICATIONS**

PHASE I/PHASE II  
ENVIRONMENTAL SITE ASSESSMENT REPORT  
5355 East Airport Drive  
Ontario, California

Farallon PN: 1071-080 (Task 2)

**BRANT ROTNEM**  
Staff Geologist

BA Environmental Policy  
13 years' experience

Brant Rotnem is an Environmental Professional with over 13 years of experience in the environmental consulting industry. Professional experience includes project management, site inspection in support of environmental due diligence, and preparation of over 1,000 Phase I Environmental Site Assessment Reports. Brant also has prepared Transaction Screen Analyses, Limited Environmental Site Assessments, database reviews, peer reviews, and additional due diligence scopes.

**KATHY LEHNUS, L.E.P., P.G.**  
Senior Geologist

BSc Environmental Science  
MSc Applied Geology  
24 years' experience

Kathy Lehnus has 24 years of experience in the environmental consulting industry. Her professional experience includes conducting Phase I and Phase II Environmental Site Assessments, managing investigation and remediation projects led by the California Department of Toxic Substances Control and California Regional Water Quality Control Boards, investigating environmental impacts on investment portfolios, and providing oversight for soil and groundwater assessments. Kathy's key skills include preparation of investigation and remediation work plans, regulatory navigation, and project quality and process improvement, including developing new policies and updating standard operating procedures.

**SCOTT ALLIN, R.E.P.A.**  
Principal Environmental Scientist

BS Physical Science (Hydrology)  
30 years' experience

Scott Allin has 30 years of project and program management experience in the evaluation and reporting of environmental liability associated with the sale or Brownfield redevelopment of impaired properties. He has supported the needs of developers and others in the acquisition of Cost Cap and Finite Risk environmental insurance to manage long-term environmental risks. He has provided clients with value-added due diligence services for single properties and large multimillion-dollar mixed-use portfolios, both nationally and internationally. Scott has provided guidance for evaluating environmental risks during complex mergers and acquisitions; and management services for implementation of remedial actions, asbestos abatement, environmental audit programs, and environmentally sensitive property improvements.

**APPENDIX B**  
**SITE PHOTOGRAPHS**

PHASE I/PHASE II  
ENVIRONMENTAL SITE ASSESSMENT REPORT  
5355 East Airport Drive  
Ontario, California

Farallon PN: 1071-080 (Task 2)

## **SITE PHOTOGRAPHS**

### **Phase I Environmental Site Assessment Report**

**5355 East Airport Drive**

**Ontario, California**

**Farallon PN: 1071-080 (Task 2)**

**Photograph 1:** Verhoeven grain mill.

**Photograph 2:** Wash water storage tank by truck-washing area.

**Photograph 3:** Bermed truck-washing area by Building B.

**Photograph 4:** Sump in truck-washing area.

**Photograph 5:** Diesel fueling area by Building A.

**Photograph 6:** Former underground storage tank area by Building B.

**Photograph 7:** Former underground storage tank area by Verhoeven Building C.

**Photograph 8:** Former underground storage tank area north of grain mill.

**Photograph 9:** Hydraulic augers at Scoular grain storage silos.

**Photograph 10:** Scoular grain storage silos.

**Photograph 11:** Septic tank location by Building A.

**Photograph 12:** Rail transloading area.

**Photograph 13:** Railway offloading area.

**Photograph 14:** Scoular hazardous materials storage area.

**Photograph 15:** Verhoeven equipment service area in Building A.

**Photograph 16:** Hazardous materials storage in Verhoeven equipment service area in Building A.

**Photograph 17:** Automotive service area in Verhoeven Building B.

**Photograph 18:** Parts washing equipment in Building B.

**Photograph 19:** Waste oil storage in Building B.



**SITE PHOTOGRAPHS (continued)**  
**Phase I Environmental Site Assessment Report**  
**5355 East Airport Drive**  
**Ontario, California**



**Photograph 1:** Verhoeven grain mill.



**Photograph 2:** Wash water storage tank by truck-washing area.



**SITE PHOTOGRAPHS (continued)**  
**Phase I Environmental Site Assessment Report**  
**5355 East Airport Drive**  
**Ontario, California**



**Photograph 3:** Bermed truck-washing area by Building B.



**Photograph 4:** Sump in truck-washing area.





**SITE PHOTOGRAPHS (continued)**  
**Phase I Environmental Site Assessment Report**  
**5355 East Airport Drive**  
**Ontario, California**



**Photograph 5:** Diesel fueling area by Building A.



**Photograph 6:** Former underground storage tank area by Building B.



**SITE PHOTOGRAPHS (continued)**  
**Phase I Environmental Site Assessment Report**  
**5355 East Airport Drive**  
**Ontario, California**



**Photograph 7:** Former underground storage tank area by Verhoeven Building C.



**Photograph 8:** Former underground storage tank area north of grain mill.



**SITE PHOTOGRAPHS (continued)**  
**Phase I Environmental Site Assessment Report**  
**5355 East Airport Drive**  
**Ontario, California**



**Photograph 9:** Hydraulic augers at Scoular grain storage silos.



**Photograph 10:** Scoular grain storage silos.



**SITE PHOTOGRAPHS (continued)**  
**Phase I Environmental Site Assessment Report**  
**5355 East Airport Drive**  
**Ontario, California**



**Photograph 11:** Septic tank location by Building A.



**Photograph 12:** Rail transloading area.



**SITE PHOTOGRAPHS (continued)**  
**Phase I Environmental Site Assessment Report**  
**5355 East Airport Drive**  
**Ontario, California**



**Photograph 13:** Railway offloading area.



**Photograph 14:** Scouler hazardous materials storage area.



**SITE PHOTOGRAPHS (continued)**  
**Phase I Environmental Site Assessment Report**  
**5355 East Airport Drive**  
**Ontario, California**



**Photograph 15:** Verhoeven equipment service area in Building A.



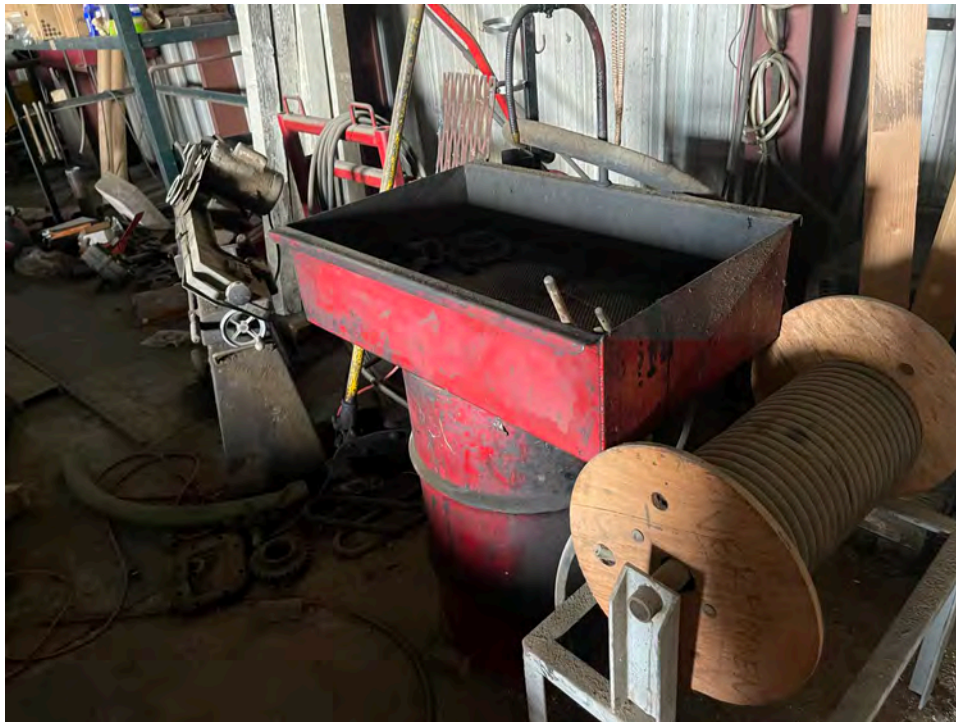
**Photograph 16:** Hazardous materials storage in Verhoeven equipment service area in Building A.



**SITE PHOTOGRAPHS (continued)**  
**Phase I Environmental Site Assessment Report**  
**5355 East Airport Drive**  
**Ontario, California**



**Photograph 17:** Automotive service area in Verhoeven Building B.



**Photograph 18:** Parts washing equipment in Building B.



**SITE PHOTOGRAPHS (continued)**  
**Phase I Environmental Site Assessment Report**  
**5355 East Airport Drive**  
**Ontario, California**



**Photograph 19:** Waste oil storage in Building B.



**APPENDIX C  
USER QUESTIONNAIRE**

PHASE I/PHASE II  
ENVIRONMENTAL SITE ASSESSMENT REPORT  
5355 East Airport Drive  
Ontario, California

Farallon PN: 1071-080 (Task 2)

## PHASE I ENVIRONMENTAL SITE ASSESSMENT USER QUESTIONNAIRE

To qualify for one of the Landowner Liability Protections (LLPs) offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001, the Phase I Environmental Site Assessment (Phase I ESA) Report user must provide the following information (if available) to the environmental professional (Farallon Consulting, L.L.C.). Failure to provide this information could result in the determination that "all appropriate inquiry" has not been completed.

Date: December 15, 2021

### ■ PROJECT/SITE INFORMATION

Client Name: Prologis		Client Telephone: 415-394-9000	
Client Address: Pier 1, Bay 1, San Francisco, CA 94111			
Asset #:		Project/Site Name:	
Project Street Address: 5355 East Airport Drive			
City: Ontario	County: California	State: CA	Zip:

Why is this Phase I ESA required?

Property Transaction:

Sale
  Purchase
  Exchange
  Other

Comments:

Needed for entitlements associated with redevelopment

### ■ PROPERTY USE & SPECIFICATIONS

<input type="checkbox"/> Single-Family Residential	<input type="checkbox"/> Vacant or Undeveloped Land
<input type="checkbox"/> Multi-Family Residential #Units:	<input type="checkbox"/> Agricultural ( <i>Specify type</i> ):
<input type="checkbox"/> Commercial Office	<input checked="" type="checkbox"/> Industrial ( <i>Specify type</i> ): Grain processing
<input type="checkbox"/> Commercial Retail	<input type="checkbox"/> Other ( <i>Specify type</i> ): Military Base

Provide a general Site description: See provided Phase I/II

Legal description/plat plan/boundary survey available?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Already provided
Current Property Status:	<input type="checkbox"/> Vacant	<input checked="" type="checkbox"/> Occupied	<input type="checkbox"/> Improved <input type="checkbox"/> Unimproved
Total Property Size: 14.2 acres	Original Construction Date: 1973		
Total # of Buildings: Multiple	Was Construction Phased?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No <input type="checkbox"/> Unknown
Total Sq. Ft. of Buildings: Multiple	Date(s) of Renovation(s)/Phases:		
Does Site have an undeveloped area equal to 1 acre or more?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Are any bodies of water on or immediately adjacent to the Site?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	If Yes, describe:
Comments:			

Potable water source at Site?	<input type="checkbox"/> On-Site well	<input checked="" type="checkbox"/> Utility ( <i>Specify provider</i> ) NA
Wastewater discharge at Site?	<input checked="" type="checkbox"/> Septic Tank/Drainfield	<input type="checkbox"/> Sanitary Sewer <input type="checkbox"/> Other ( <i>Specify</i> ):

Building plans available at the Site?  Yes  No  Unknown  Already provided

**■ OWNERS**

Current Owner(s): Prologis Entity

Previous Owner(s):

**■ OCCUPANTS/TENANTS**

Current Occupant(s)/Tenant(s) and operations: Verhoeven Grain Company and Scoular Company

Previous Occupant(s)/Tenant(s) and operations: Farmland

**■ PREVIOUS PROPERTY USES**

Describe previous use(s) of the Site: Farmland

**■ PREVIOUS INVESTIGATIONS**

Has any previous environmental investigation been conducted at Site?  Yes  No  Unknown

If Yes, note type and describe:  Phase I ESA  Asbestos  Lead Paint  Lead in Water

Radon  Wetlands  Indoor Air  UST/AST  Other (*Specify type below*)

Comments:

see Phase I and II provided

**■ ON-SITE ENVIRONMENTAL CONDITIONS**

Are you aware of any of the following environmental conditions at the Site, either current or former?

Environmental Condition/Issue	Response	Comment if Yes Response
Aboveground Storage Tank	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	see phase I
Underground Storage Tank	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	removed
Hazardous/Toxic Substance	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	see phase I
Stored Chemical	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	see phase I
Chemical Spill/Release	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA
Dump Area/Landfill	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA
Waste Treatment System	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA
Wastewater Discharge	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA
Air Stack/Vent/Odor	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA
Indoor Air Quality Complaint	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA

Floor Drain/Sump	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	see phase I
Pit, Pond, Lagoon	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA
Stained Soil/Vegetation Impact	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA

Other specialized knowledge of an environmental condition or issue at the Site?  
NA

**■ ADDITIONAL ON-SITE ENVIRONMENTAL CONDITIONS**

Are you aware of any of the following environmental conditions on the Site, either current or former?

Environmental Condition/Issue	Response	Comment if Yes Response
Pesticide/Herbicide Use	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA
Polychlorinated Biphenyls	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA
Electrical Transformer	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA
Hydraulic Lift	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA
Elevator	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA
Drycleaner Business	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA
Asbestos	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA
Lead Paint	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA
Lead Piping/Lead in Water	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA
Elevated Radon Level	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA
Fluorescent Light Fixture	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA
Wetland, Flooding	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA
Unique Wildlife Species	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA
Archeological Resource	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA
Historic/National Landmark	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA
Oil/Gas Well	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA
Water Well	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA
Environmental Cleanup	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA
Environmental Permit	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	NA

**■ OFF-SITE ENVIRONMENTAL CONDITIONS**

On adjoining property, are there any: Gasoline Stations?  Yes  No Drycleaners?  Yes  No

Are you aware of any other environmental conditions or concerns on adjacent or nearby properties?  
 Yes  No

Comments  
I am not aware of any other environmental conditions or concerns on adjacent or nearby properties.

**(1) Environmental cleanup liens that have been filed or recorded against the Site (Part 312.25 of Title 40 of the Code of Federal Regulations [40 CFR 312.25])**

Are you aware of any environmental cleanup liens against the Site that have been filed or recorded under federal, tribal, state, or local law?

I am not aware of any environmental cleanup liens against the Site.

**(2) Activity and land use limitations that are in place at the Site or that have been filed or recorded in a registry (40 CFR 312.26)**

Are you aware of any activity and land use limitation (such as engineering controls, land use restrictions, or institutional controls) that are in place at the Site and/or have been filed or recorded in a registry under federal, tribal, state, or local law?

I am not aware of any activity and land use limitation.

**(3) Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28)**

As the user of the Phase I ESA Report, do you have any specialized knowledge or experience related to the Site or nearby properties? For example, are you involved in the same line of business as the current or former occupant(s) of the Site or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

No, I have no specialized knowledge of the Site.

**(4) Relationship of the purchase price to the fair market value of the Site if it were not contaminated (40 CFR 312.29)**

Does the purchase price being paid for this Site reasonably reflect the fair market value of the Site? If you conclude that there is a difference between the purchase price and the fair market value, have you considered whether the lower purchase price is because contamination is known or believed to be present at the Site?

I have no knowledge of the purchase price being discounted for environmental conditions

**(5) Commonly known or reasonably ascertainable information about the property (40 CFR 312.30)**

Are you aware of commonly known or reasonably ascertainable information about the Site that would help Farallon Consulting, L.L.C. to identify conditions indicative of a chemical or other release or threatened release? For example, as user of the Phase I ESA Report:

Do you know the past use(s) of the Site? (If yes, please specify.) No.

Do you know of a specific chemical(s) present at the Site, or present at one time? (If yes, please specify.) No.

Do you know of a chemical and/or other spill(s) or release(s) that have taken place at the Site? (If yes, please specify.) No.

Do you know of any environmental cleanup(s) that have taken place at the Site? (If yes, please specify.) No.

**(6) The degree of obviousness of the presence or likely presence of contamination at the Site, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31)**

As the user of the Phase I ESA Report, based on your knowledge and experience related to the Site, is there any obvious indicator(s) that point to the presence or likely presence of contamination at the Site? (If yes, please specify.)

No.

**Identify all parties who will rely on the Phase I ESA Report, including:**

Name of Business: Prologis

Name of Contact: Julia Smith

Address: Pier 1, Bay 1, San Francisco, CA

Telephone Number: 415-733-9411

E-mail Address: julias4@prologis.com

**Has any party that will rely on the Phase I ESA Report required services beyond the standard ASTM E1527-05? (For example, an asbestos, lead-based paint, lead in drinking water, or wetlands investigation)** (If yes, please specify.) Visual or desk top survey for lead-based paint, lead in drinking water, wetlands, radon gas, and water intrusion. Provide recommendations for further assessment as warranted

**Who is the Site contact, and how can the contact be reached?**

Name of Business: See previously provided contact information

Name of Contact:

Address:

Telephone Number:

E-mail Address: See previously provided contact information

**Are there any special terms and conditions that must be agreed upon by Farallon Consulting, L.L.C.?**  
(If yes, please specify.)

No

**APPENDIX D**  
**HISTORICAL DOCUMENTATION**

PHASE I/PHASE II  
ENVIRONMENTAL SITE ASSESSMENT REPORT  
5355 East Airport Drive  
Ontario, California

Farallon PN: 1071-080 (Task 2)





**5355 East Airport Drive**

5355 East Airport Drive

Ontario, CA 91761

Inquiry Number: 6782886.8

December 09, 2021

## The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

# EDR Aerial Photo Decade Package

12/09/21

**Site Name:**

5355 East Airport Drive  
5355 East Airport Drive  
Ontario, CA 91761  
EDR Inquiry # 6782886.8

**Client Name:**

Farallon Consulting, LLC  
4380 South Macadam Avenue, Suite 500  
Portland, OR 97239  
Contact: Amanda Garcia



Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

**Search Results:**

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2005	1"=500'	Flight Year: 2005	USDA/NAIP
2002	1"=500'	Acquisition Date: January 01, 2002	USGS/DOQQ
1994	1"=500'	Acquisition Date: June 01, 1994	USGS/DOQQ
1990	1"=500'	Flight Date: August 29, 1990	USDA
1985	1"=500'	Flight Date: July 28, 1985	USDA
1975	1"=500'	Flight Date: August 01, 1975	USGS
1966	1"=500'	Flight Date: April 16, 1966	USGS
1959	1"=500'	Flight Date: October 15, 1959	USDA
1953	1"=500'	Flight Date: February 02, 1953	USDA
1948	1"=500'	Flight Date: July 10, 1948	USGS
1938	1"=500'	Flight Date: May 27, 1938	USDA

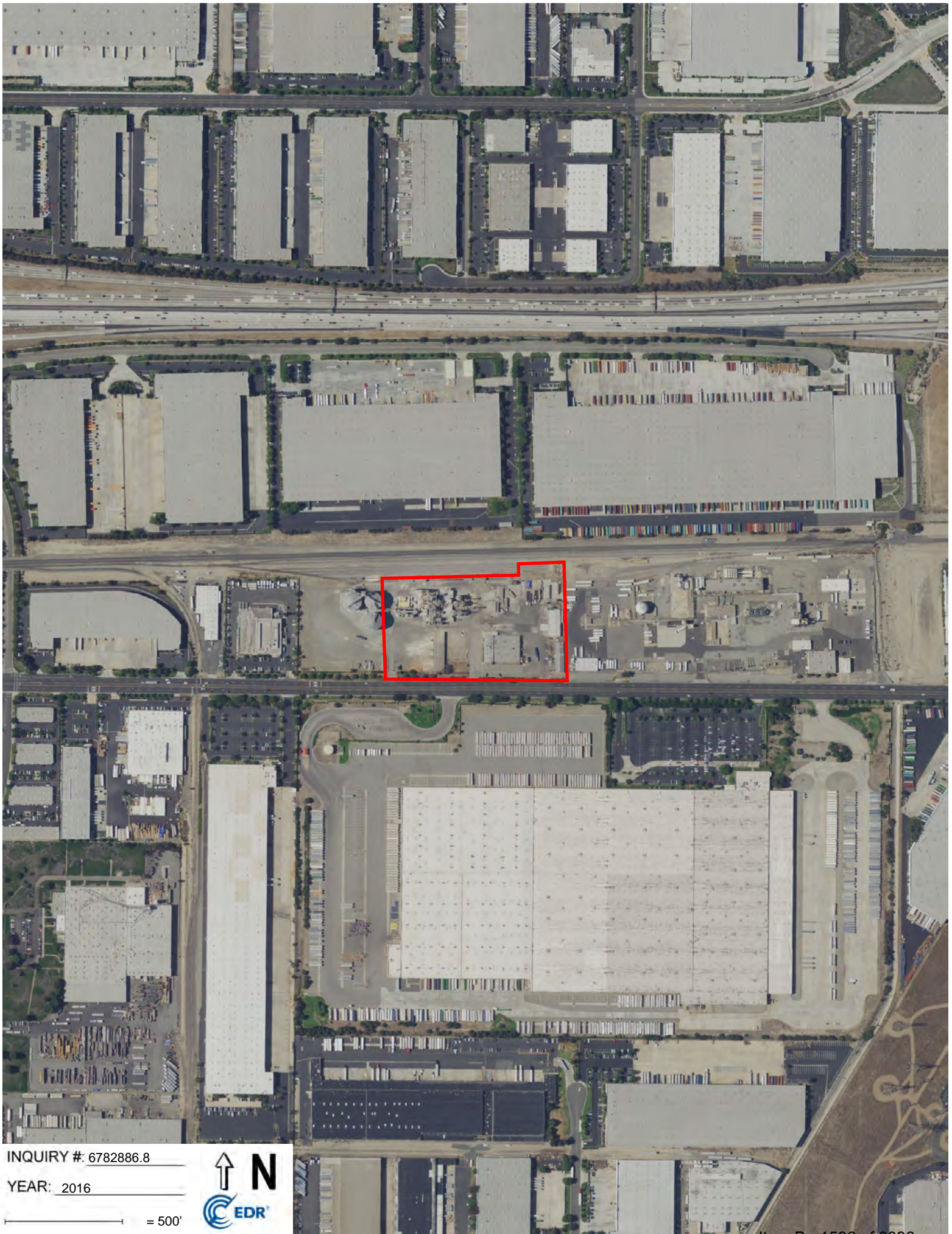
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INQUIRY #: 6782886.8

YEAR: 2016

— = 500'





INQUIRY #: 6782886.8

YEAR: 2012

— = 500'



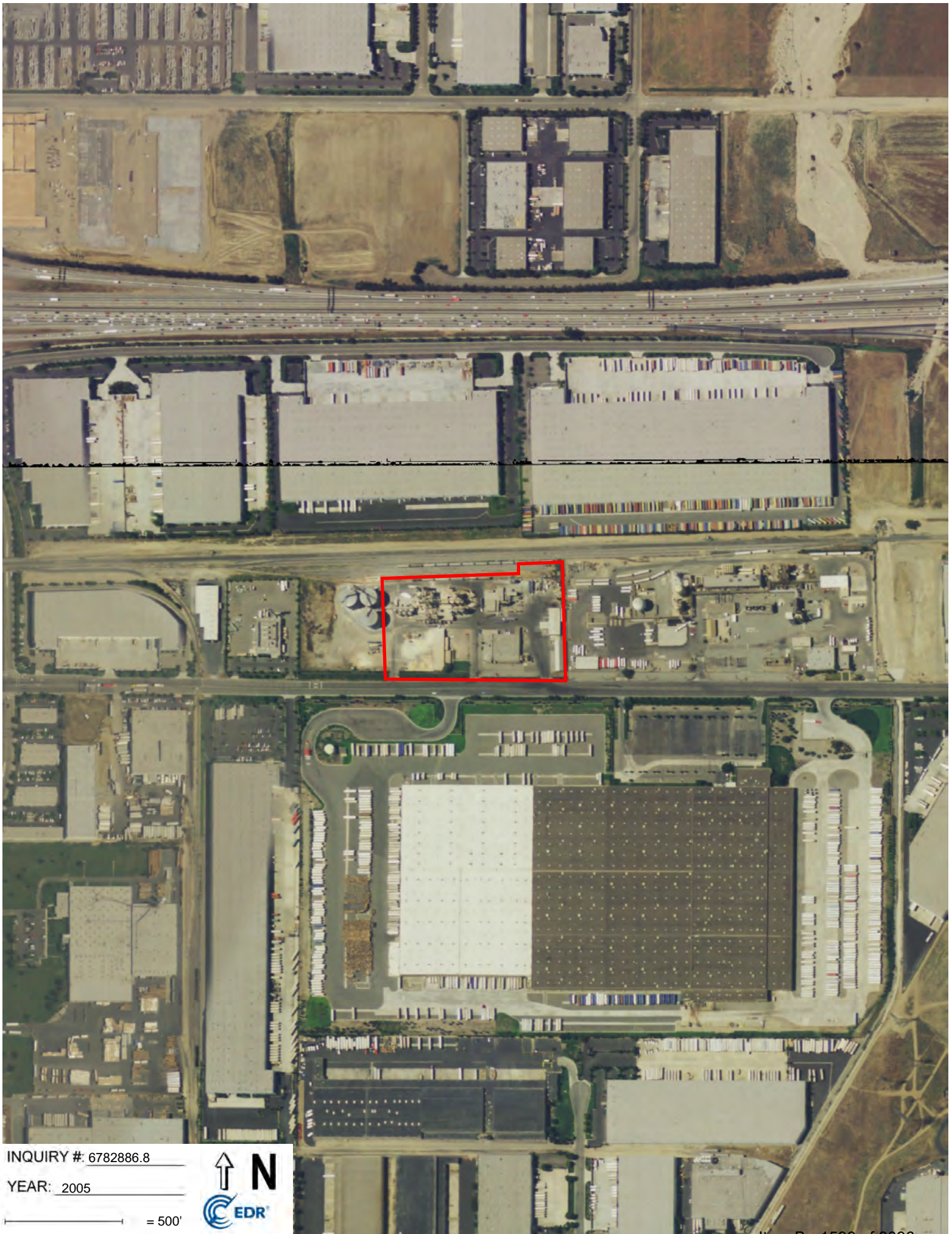


INQUIRY #: 6782886.8

YEAR: 2009

— = 500'



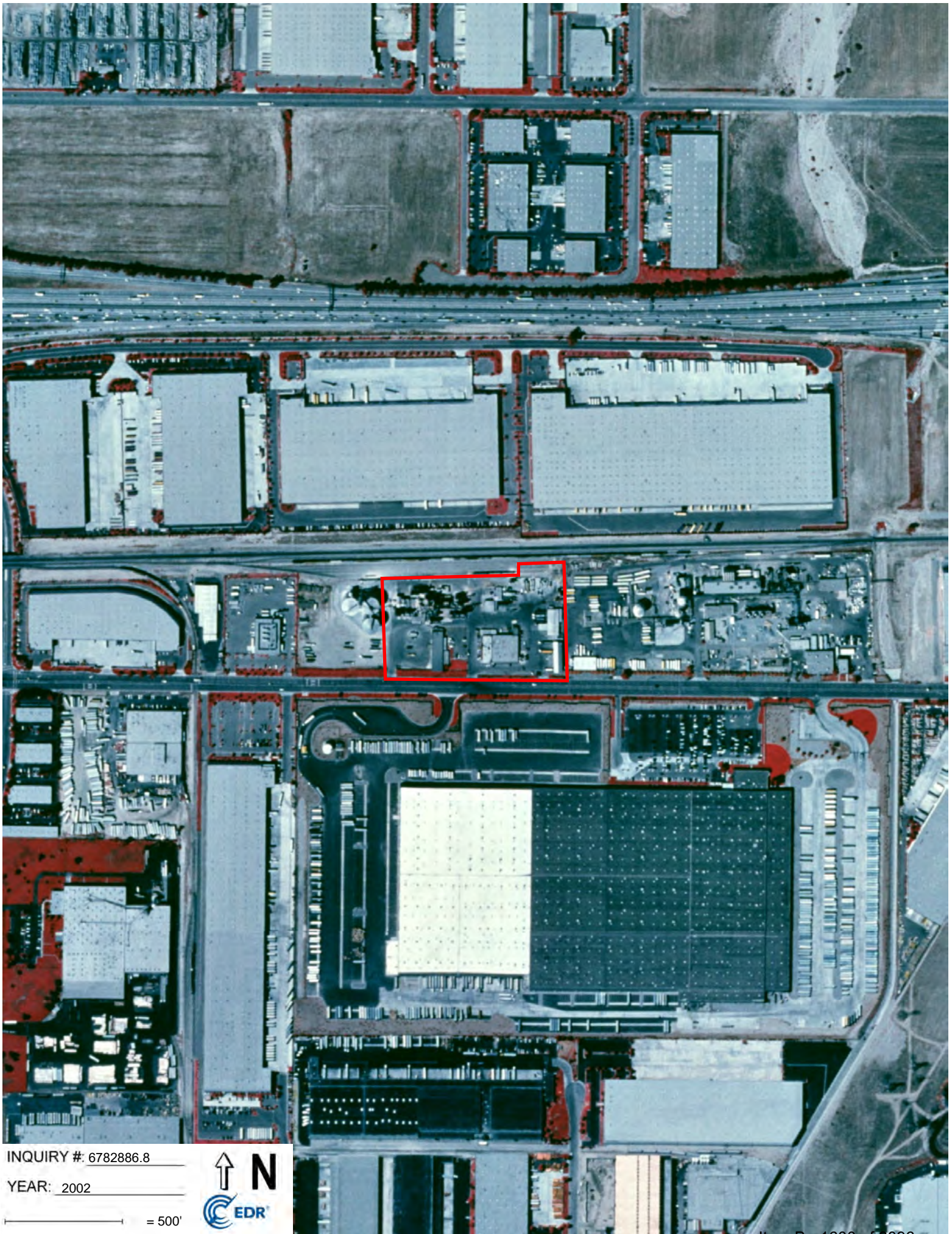


INQUIRY #: 6782886.8

YEAR: 2005

— = 500'



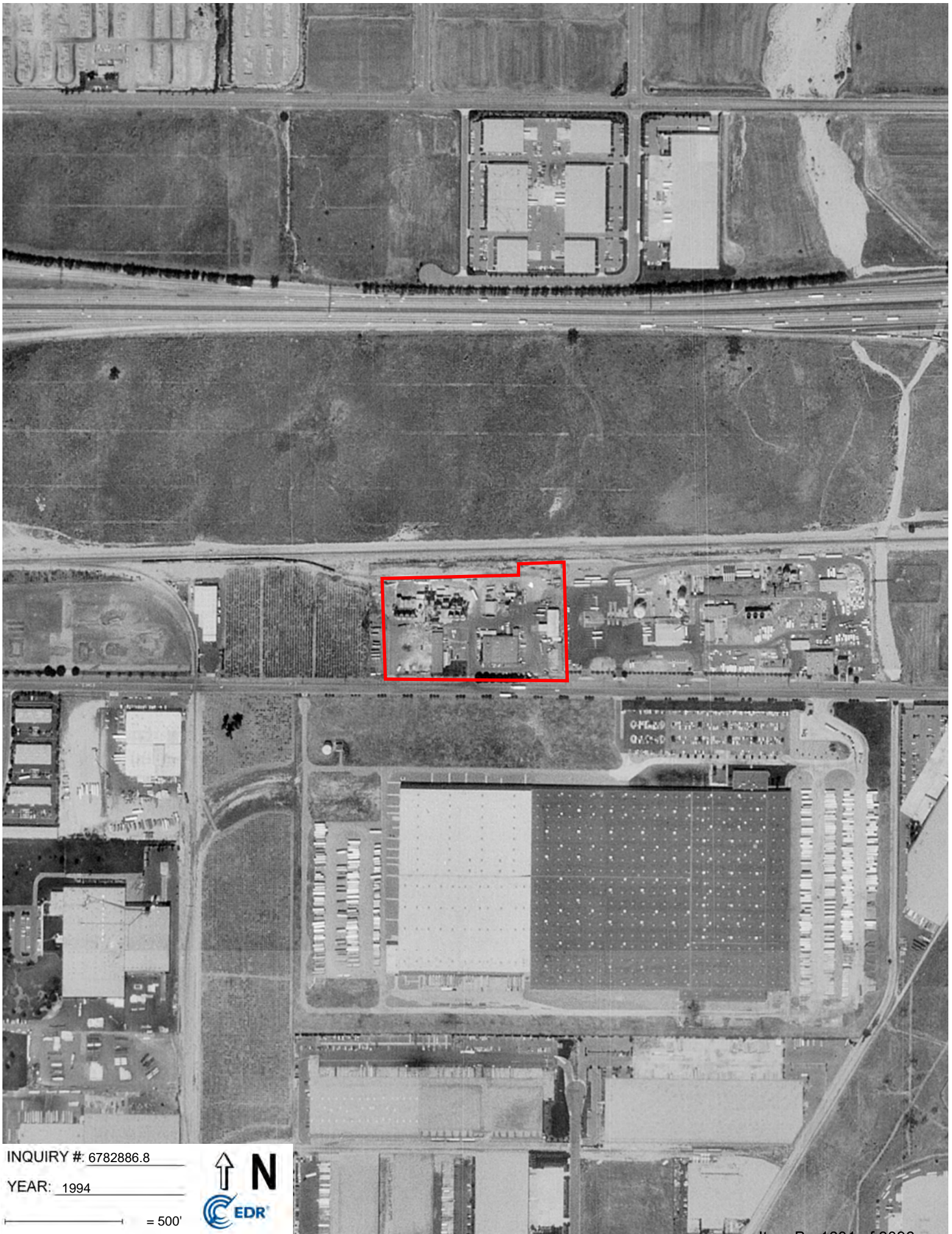


INQUIRY #: 6782886.8

YEAR: 2002

— = 500'





INQUIRY #: 6782886.8

YEAR: 1994

— = 500'







INQUIRY #: 6782886.8

YEAR: 1990

— = 500'





INQUIRY #: 6782886.8

YEAR: 1985

— = 500'





INQUIRY #: 6782886.8

YEAR: 1975

— = 500'





INQUIRY #: 6782886.8

YEAR: 1966

— = 500'



15-59



INQUIRY #: 6782886.8

YEAR: 1959

— = 500'





INQUIRY #: 6782886.8

YEAR: 1953

— = 500'





INQUIRY #: 6782886.8

YEAR: 1948

— = 500'





INQUIRY #: 6782886.8

YEAR: 1938

— = 500'





**5355 East Airport Drive**

5355 East Airport Drive

Ontario, CA 91761

Inquiry Number: 6782886.5

December 10, 2021

# The EDR-City Directory Abstract



6 Armstrong Road  
Shelton, CT 06484  
800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

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Executive Summary

Findings

City Directory Images

***Thank you for your business.***

Please contact EDR at 1-800-352-0050  
with any questions or comments.

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## EXECUTIVE SUMMARY

### DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1922 through 2017. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 660 feet of the target property.

A summary of the information obtained is provided in the text of this report.

### RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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### RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>	<u>Text Abstract</u>	<u>Source Image</u>
2017	Cole Information Services	X	-	X	-
	Cole Information Services	X	X	X	-
2014	Cole Information Services	X	-	X	-
	Cole Information Services	X	X	X	-
2009	Cole Information Services	X	X	X	-
2008	Haines Company, Inc.	-	X	X	-
	Haines Company, Inc.	X	X	X	-
2004	Cole Information Services	X	X	X	-
2003	Haines & Co Publishers	-	X	X	-
	Haines & Co Publishers	X	X	X	-

## EXECUTIVE SUMMARY

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>	<u>Text Abstract</u>	<u>Source Image</u>
2002	Cole Information Services	-	-	-	-
1999	Cole Information Services	X	-	X	-
	Cole Information Services	X	X	X	-
1996	GTE	-	-	-	-
1995	GTE Directories	-	-	X	-
	GTE Directories	X	-	X	-
1994	Cole Information Services	-	-	-	-
	Cole Information Services	-	X	X	-
1991	GTE California Incorporated	-	-	-	-
1990	GTE	-	X	X	-
	GTE	X	X	X	-
1985	GTE	-	X	X	-
	GTE	X	X	X	-
1981	General Telephone Company of California	-	-	-	-
1980	GTE General Telephone Company of California	-	X	X	-
1975	Pacific Telephone Co	-	-	-	-
1970	General Telephone Company of California	-	-	-	-
1965	GTE	-	-	-	-
1964	Luskey Brothers & Co	-	-	-	-
1961	Luskey Brothers & Co Publishers	-	-	-	-
1960	Luskey Brothers & Co Publishers	-	-	-	-
1956	General Telephone Company Publishers	-	-	-	-
1955	Luskey Brothers Co Publishers	-	-	-	-
1951	Los Angeles Directory Co Publishers	-	-	-	-
1950	The Pacific Telephone and Telegraph Co	-	-	-	-
1949	San Bernardino Directory Co. Publishers	-	-	-	-
1946	Los Angeles Directory Company Publishers	-	-	-	-
1945	Southern California Telephone Company	-	-	-	-
1942	San Bernardino Directory Co Publisher	-	-	-	-
1941	Associated Telephone Company Limited	-	-	-	-
1940	Los Angeles Directory Co.	-	-	-	-
1938	Los Angeles Directory Co.	-	-	-	-
1936	San Bernardino Directory Co Publisher	-	-	-	-
1934	Los Angeles Directory Co.	-	-	-	-
1931	Los Angeles Directory Co.	-	-	-	-
1930	San Bernardino Directory Co Publisher	-	-	-	-

## EXECUTIVE SUMMARY

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>	<u>Text Abstract</u>	<u>Source Image</u>
1926	Los Angeles Directory Co.	-	-	-	-
1923	Los Angeles Directory Company	-	-	-	-
1922	R.L. Polk & Co Publishers	-	-	-	-

## EXECUTIVE SUMMARY

### SELECTED ADDRESSES

The following addresses were selected by the client, for EDR to research. An "X" indicates where information was identified.

<u>Address</u>	<u>Type</u>	<u>Findings</u>
5351 E. Airport Drive	Client Entered	X
5200 E. Airport Drive	Client Entered	X
5705 E. Airport Drive	Client Entered	X
5600 E. Airport Drive	Client Entered	X
5200 Shea Center Drive	Client Entered	X
5300 Shea Center Drive	Client Entered	X
5400 Shea Center Drive	Client Entered	X
5355 East A Street	Client Entered	X
5355 Slover Avenue	Client Entered	

# FINDINGS

## TARGET PROPERTY INFORMATION

### ADDRESS

5355 East Airport Drive  
Ontario, CA 91761

### FINDINGS DETAIL

Target Property research detail.

### AIRPORT DR

#### 5355 AIRPORT DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1999	COAST GRAIN COMPANY BAG FEED SALES	Cole Information Services
	COAST GRAIN COMPANY CITRUS DIVISION	Cole Information Services

### AIRPORT DR E

#### 5355 AIRPORT DR E

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2003	COAST GRAIN CO MAIN OFC	Haines & Co Publishers

### E AIRPORT DR

#### 5355 E AIRPORT DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	THE SCOULAR COMPANY	Cole Information Services
	VERHOEVEN GEO GRAIN INC	Cole Information Services
2014	THE SCOULAR COMPANY	Cole Information Services
	VERHOEVEN GEO GRAIN INC	Cole Information Services
2009	J D HEISKELL & CO	Cole Information Services
	THE SCOULAR CO	Cole Information Services
	TXI RIVERSIDE CEMENT	Cole Information Services
2008	J B HEISKELL & COMPANY	Haines Company, Inc.
	SCOULAR COMPANY THE	Haines Company, Inc.
2004	SCOULAR CO	Cole Information Services
1995	COAST GRAIN CO	GTE Directories

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1990	COAST GRAIN CO	GTE
	No Charge Ask Opr For	GTE
1985	CHINO GRAIN 8 MLNG INC	GTE

### E AIRPRT DR

#### 5355 E AIRPRT DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1999	COAST GRAIN COMPANY	Cole Information Services

### East A Street

#### 5355 East A Street

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	J B HEISKELL & COMPANY	Haines Company, Inc.
	SCOLAR COMPANY THE	Haines Company, Inc.
2003	COAST GRAIN CO MAIN OFC	Haines & Co Publishers
1995	COAST GRAIN CO	GTE Directories
1990	COAST GRAIN CO	GTE
	No Charge Ask Opr For	GTE
1985	CHINO GRAIN 8 MLNG INC	GTE

### Slover Avenue

#### 5355 Slover Avenue

<u>Year</u>	<u>Uses</u>	<u>Source</u>
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## FINDINGS

### ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

#### AIRPORT DR

##### 5600 AIRPORT DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1999	KMART DISTRIBUTION	Cole Information Services
1994	KMART DISTRIBUTION	Cole Information Services

#### E AIRPORT DR

##### 5200 E AIRPORT DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	NEW BREED	Cole Information Services
	NEW BREED LEASING CORP	Cole Information Services
2014	NEW BREED LEASING CORP	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
	NEW BREED	Cole Information Services
2009	BREED NEW	Cole Information Services
2004	ESTYLE INC	Cole Information Services
	NEW BREED LOGISTICS & REPAIR	Cole Information Services
	BREED NEW	Cole Information Services
1999	BREED NEW	Cole Information Services

##### 5351 E AIRPORT DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2009	CELLCO PARTNERSHIP	Cole Information Services
	VERIZON WIRELESS	Cole Information Services
	CELLCO PARTNERSHIP	Cole Information Services
	VERIZON WIRELESS	Cole Information Services
2008	OLSEN H C CONSTRUCTION	Haines Company, Inc.
2004	VERIZON WIRELESS	Cole Information Services
	VERIZON WIRELESS	Cole Information Services

## FINDINGS

### 5600 E AIRPORT DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	KMART	Cole Information Services
2014	KMART DISTRIBUTION	Cole Information Services
2004	KMART DISTRIBUTION CTR	Cole Information Services

### 5705 E AIRPORT DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	JACK B KELLEY INC	Cole Information Services
2014	JACK B KELLEY INC	Cole Information Services
2009	JACK B KELLEY	Cole Information Services
	USF BESTWAY CORP	Cole Information Services

### E. Airport Drive

#### 5200 E Airport Drive

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	NEW BREED	Haines Company, Inc.
	NEW BREED LEASING CORP	Haines Company, Inc.
2003	NEW BREED	Haines & Co Publishers
	NEW BREED LEASING CORP	Haines & Co Publishers

#### 5351 E Airport Drive

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	OLSEN H C CONSTRUCTION	Haines Company, Inc.

#### 5600 E Airport Drive

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	KMART DISTRIBUTION	Haines Company, Inc.
2003	KMART DISTRIBUTION	Haines & Co Publishers
1985	K MART DISTRIBUTION	GTE
1980	+ K MART CORP	GTE General Telephone Company of California
	t M H E CONTRACTING	GTE General Telephone Company of California

## FINDINGS

### 5705 E. Airport Drive

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	JACK B KELLEY INC	Haines Company, Inc.
2003	REF CHEM	Haines & Co Publishers
1990	LINDE DIV UNION CARBIDE CORP	GTE
	Service Center	GTE
	UNION CARBIDE CORP	GTE
	Service Center	GTE
1985	UNION CARBIDE CORP	GTE

### SHEA CENTER DR

#### 5200 SHEA CENTER DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	RESTORATION HARDWARE	Cole Information Services
	CAL X TRANS INC	Cole Information Services
	COOPER LIGHTING INC	Cole Information Services
2014	AEOLUS DOWN INC	Cole Information Services
	COOPER LIGHTING INC	Cole Information Services
2009	COOPER LIGHTING INC	Cole Information Services
2004	GULF SOUTH MED SUPPLY	Cole Information Services
	COOPER LIGHTING	Cole Information Services

#### 5300 SHEA CENTER DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	EMSER TILE LLC	Cole Information Services
2014	EMSER TILE LLC FAX LINE	Cole Information Services
	EMSER TILE LLC	Cole Information Services
2009	EMSER TILE LLC	Cole Information Services
	UPS WORLDWIDE LOGISTICS INC	Cole Information Services
2004	ALDWORTH	Cole Information Services

#### 5400 SHEA CENTER DR

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	AMERIWOOD INDUSTRIES	Cole Information Services
2014	AMERIWOOD INDUSTRIES	Cole Information Services

## FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2009	DOREL JUVENILE GROUP	Cole Information Services

### Shea Center Drive

#### 5200 Shea Center Drive

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	COOPER LIGHTING INC	Haines Company, Inc.

#### 5300 Shea Center Drive

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	EMSER TILE LLC	Haines Company, Inc.
	EMSER TILE LLC	Haines Company, Inc.

#### 5400 Shea Center Drive

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2008	DOREL JUVENILE GROUP	Haines Company, Inc.

## FINDINGS

### **ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE**

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

<b><u>Address Researched</u></b>	<b><u>Address Not Identified in Research Source</u></b>
5200 E AIRPORT DR	2008, 2003, 2002, 1996, 1995, 1994, 1991, 1990, 1985, 1981, 1980, 1975, 1970, 1965, 1964, 1961, 1960, 1956, 1955, 1951, 1950, 1949, 1946, 1945, 1942, 1941, 1940, 1938, 1936, 1934, 1931, 1930, 1926, 1923, 1922
5200 E. Airport Drive	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1995, 1994, 1991, 1990, 1985, 1981, 1980, 1975, 1970, 1965, 1964, 1961, 1960, 1956, 1955, 1951, 1950, 1949, 1946, 1945, 1942, 1941, 1940, 1938, 1936, 1934, 1931, 1930, 1926, 1923, 1922
5200 SHEA CENTER DR	2008, 2003, 2002, 1999, 1996, 1995, 1994, 1991, 1990, 1985, 1981, 1980, 1975, 1970, 1965, 1964, 1961, 1960, 1956, 1955, 1951, 1950, 1949, 1946, 1945, 1942, 1941, 1940, 1938, 1936, 1934, 1931, 1930, 1926, 1923, 1922
5200 Shea Center Drive	2017, 2014, 2009, 2004, 2003, 2002, 1999, 1996, 1995, 1994, 1991, 1990, 1985, 1981, 1980, 1975, 1970, 1965, 1964, 1961, 1960, 1956, 1955, 1951, 1950, 1949, 1946, 1945, 1942, 1941, 1940, 1938, 1936, 1934, 1931, 1930, 1926, 1923, 1922
5300 SHEA CENTER DR	2008, 2003, 2002, 1999, 1996, 1995, 1994, 1991, 1990, 1985, 1981, 1980, 1975, 1970, 1965, 1964, 1961, 1960, 1956, 1955, 1951, 1950, 1949, 1946, 1945, 1942, 1941, 1940, 1938, 1936, 1934, 1931, 1930, 1926, 1923, 1922
5300 Shea Center Drive	2017, 2014, 2009, 2004, 2003, 2002, 1999, 1996, 1995, 1994, 1991, 1990, 1985, 1981, 1980, 1975, 1970, 1965, 1964, 1961, 1960, 1956, 1955, 1951, 1950, 1949, 1946, 1945, 1942, 1941, 1940, 1938, 1936, 1934, 1931, 1930, 1926, 1923, 1922
5351 E AIRPORT DR	2017, 2014, 2008, 2003, 2002, 1999, 1996, 1995, 1994, 1991, 1990, 1985, 1981, 1980, 1975, 1970, 1965, 1964, 1961, 1960, 1956, 1955, 1951, 1950, 1949, 1946, 1945, 1942, 1941, 1940, 1938, 1936, 1934, 1931, 1930, 1926, 1923, 1922
5351 E AIRPORT DR	2017, 2014, 2009, 2004, 2003, 2002, 1999, 1996, 1995, 1994, 1991, 1990, 1985, 1981, 1980, 1975, 1970, 1965, 1964, 1961, 1960, 1956, 1955, 1951, 1950, 1949, 1946, 1945, 1942, 1941, 1940, 1938, 1936, 1934, 1931, 1930, 1926, 1923, 1922
5351 E AIRPORT DR	2017, 2014, 2008, 2003, 2002, 1999, 1996, 1995, 1994, 1991, 1990, 1985, 1981, 1980, 1975, 1970, 1965, 1964, 1961, 1960, 1956, 1955, 1951, 1950, 1949, 1946, 1945, 1942, 1941, 1940, 1938, 1936, 1934, 1931, 1930, 1926, 1923, 1922
5351 E. Airport Drive	2017, 2014, 2009, 2004, 2003, 2002, 1999, 1996, 1995, 1994, 1991, 1990, 1985, 1981, 1980, 1975, 1970, 1965, 1964, 1961, 1960, 1956, 1955, 1951, 1950, 1949, 1946, 1945, 1942, 1941, 1940, 1938, 1936, 1934, 1931, 1930, 1926, 1923, 1922
5400 SHEA CENTER DR	2008, 2004, 2003, 2002, 1999, 1996, 1995, 1994, 1991, 1990, 1985, 1981, 1980, 1975, 1970, 1965, 1964, 1961, 1960, 1956, 1955, 1951, 1950, 1949, 1946, 1945, 1942, 1941, 1940, 1938, 1936, 1934, 1931, 1930, 1926, 1923, 1922
5400 Shea Center Drive	2017, 2014, 2009, 2004, 2003, 2002, 1999, 1996, 1995, 1994, 1991, 1990, 1985, 1981, 1980, 1975, 1970, 1965, 1964, 1961, 1960, 1956, 1955, 1951, 1950, 1949, 1946, 1945, 1942, 1941, 1940, 1938, 1936, 1934, 1931, 1930, 1926, 1923, 1922
5600 AIRPORT DR	2017, 2014, 2009, 2008, 2004, 2003, 2002, 1996, 1995, 1991, 1990, 1985, 1981, 1980, 1975, 1970, 1965, 1964, 1961, 1960, 1956, 1955, 1951, 1950, 1949, 1946, 1945, 1942, 1941, 1940, 1938, 1936, 1934, 1931, 1930, 1926, 1923, 1922
5600 E AIRPORT DR	2009, 2008, 2003, 2002, 1999, 1996, 1995, 1994, 1991, 1990, 1985, 1981, 1980, 1975, 1970, 1965, 1964, 1961, 1960, 1956, 1955, 1951, 1950, 1949, 1946, 1945, 1942, 1941, 1940, 1938, 1936, 1934, 1931, 1930, 1926, 1923, 1922

## FINDINGS

### **Address Researched**

5600 E. Airport Drive

5705 E AIRPORT DR

5705 E. Airport Drive

### **Address Not Identified in Research Source**

2017, 2014, 2009, 2004, 2002, 1999, 1996, 1995, 1994, 1991, 1990, 1981, 1975, 1970, 1965, 1964, 1961, 1960, 1956, 1955, 1951, 1950, 1949, 1946, 1945, 1942, 1941, 1940, 1938, 1936, 1934, 1931, 1930, 1926, 1923, 1922

2008, 2004, 2003, 2002, 1999, 1996, 1995, 1994, 1991, 1990, 1985, 1981, 1980, 1975, 1970, 1965, 1964, 1961, 1960, 1956, 1955, 1951, 1950, 1949, 1946, 1945, 1942, 1941, 1940, 1938, 1936, 1934, 1931, 1930, 1926, 1923, 1922

2017, 2014, 2009, 2004, 2002, 1999, 1996, 1995, 1994, 1991, 1981, 1980, 1975, 1970, 1965, 1964, 1961, 1960, 1956, 1955, 1951, 1950, 1949, 1946, 1945, 1942, 1941, 1940, 1938, 1936, 1934, 1931, 1930, 1926, 1923, 1922

**TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE**

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

**Address Researched**

5355 East Airport Drive

**Address Not Identified in Research Source**

2002, 1996, 1994, 1991, 1981, 1980, 1975, 1970, 1965, 1964, 1961, 1960, 1956, 1955, 1951, 1950, 1949, 1946, 1945, 1942, 1941, 1940, 1938, 1936, 1934, 1931, 1930, 1926, 1923, 1922

5355 East Airport Drive

5355 East Airport Drive

Ontario, CA 91761

Inquiry Number: 6782886.4

December 09, 2021

# EDR Historical Topo Map Report

with QuadMatch™



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)



# EDR Historical Topo Map Report

12/09/21

**Site Name:**

5355 East Airport Drive  
5355 East Airport Drive  
Ontario, CA 91761  
EDR Inquiry # 6782886.4

**Client Name:**

Farallon Consulting, LLC  
4380 South Macadam Avenue, Suite 500  
Portland, OR 97239  
Contact: Amanda Garcia



EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Farallon Consulting, LLC were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDR's Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

**Search Results:****Coordinates:**

<b>P.O.#</b>	1071-080-002	<b>Latitude:</b>	34.063461 34° 3' 48" North
<b>Project:</b>	1071-080-002	<b>Longitude:</b>	-117.533485 -117° 32' 1" West
		<b>UTM Zone:</b>	Zone 11 North
		<b>UTM X Meters:</b>	450770.22
		<b>UTM Y Meters:</b>	3769320.82
		<b>Elevation:</b>	983.00' above sea level

**Maps Provided:**

2018	1953
2015	1944
2012	1941
1981	1903
1976	1900
1973	1897
1966	
1954	

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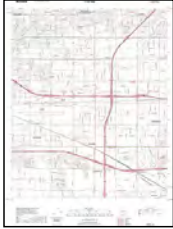
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## **Topo Sheet Key**

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

### **2018 Source Sheets**



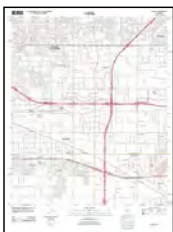
Guasti  
2018  
7.5-minute, 24000

### **2015 Source Sheets**



Guasti  
2015  
7.5-minute, 24000

### **2012 Source Sheets**



Guasti  
2012  
7.5-minute, 24000

### **1981 Source Sheets**



Guasti  
1981  
7.5-minute, 24000  
Aerial Photo Revised 1978

## **Topo Sheet Key**

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

### **1976 Source Sheets**



ONTARIO  
1976  
15-minute, 50000

### **1973 Source Sheets**



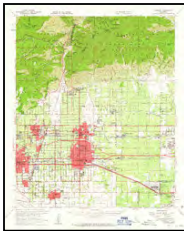
Guasti  
1973  
7.5-minute, 24000  
Aerial Photo Revised 1973

### **1966 Source Sheets**



Guasti  
1966  
7.5-minute, 24000  
Aerial Photo Revised 1966

### **1954 Source Sheets**



Ontario  
1954  
15-minute, 62500  
Aerial Photo Revised 1952

## Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

### 1953 Source Sheets



Guasti  
1953  
7.5-minute, 24000  
Aerial Photo Revised 1952

### 1944 Source Sheets



CUCAMONGA  
1944  
15-minute, 50000

### 1941 Source Sheets



GUASTI VICINITY  
1941  
7.5-minute, 31680

### 1903 Source Sheets



Cucamonga  
1903  
15-minute, 62500

## ***Topo Sheet Key***

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

### **1900 Source Sheets**

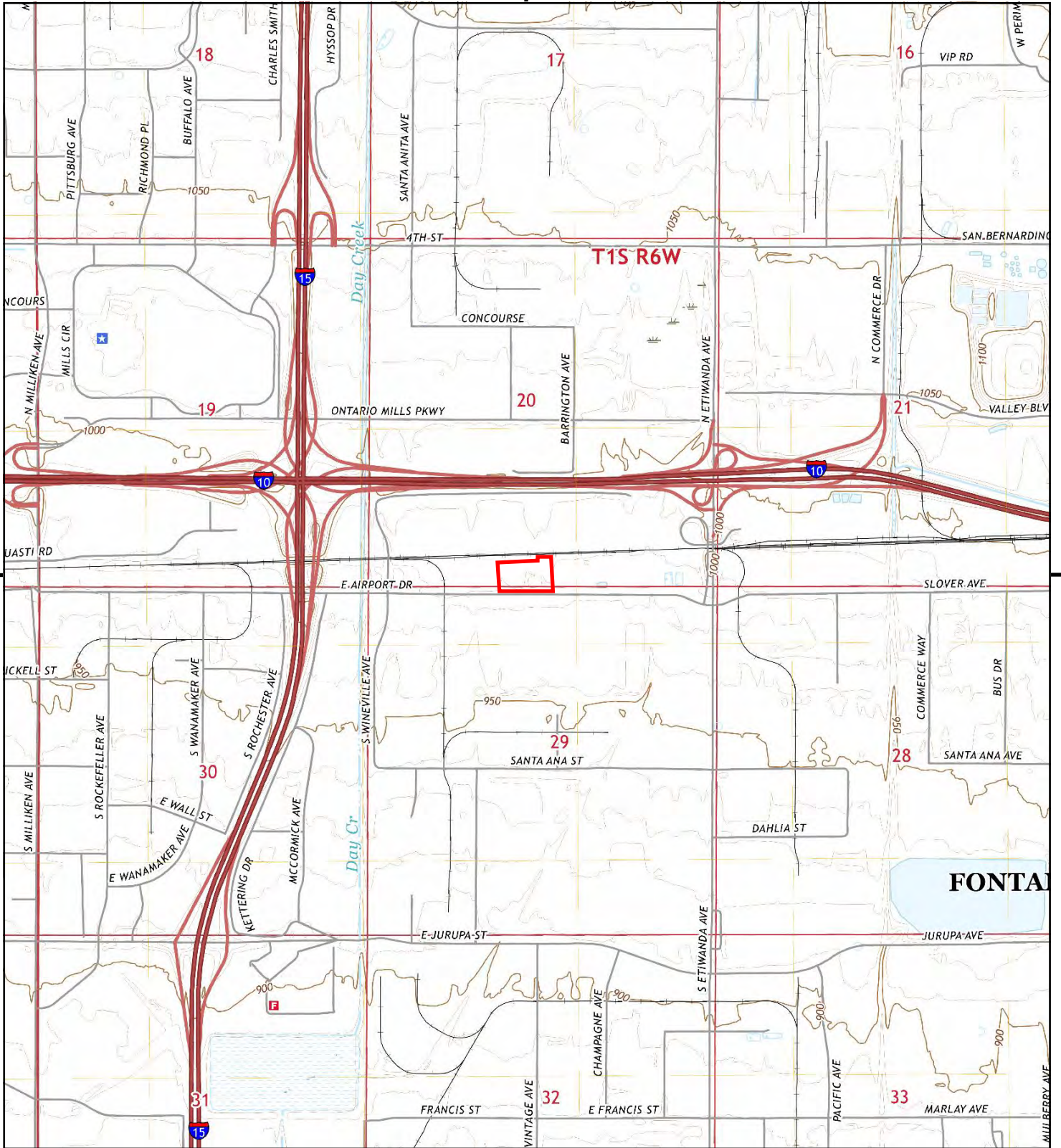


Cucamonga  
1900  
15-minute, 62500

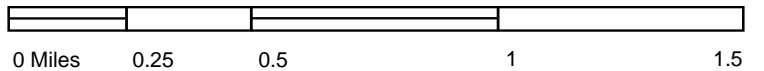
### **1897 Source Sheets**



Cucamonga  
1897  
15-minute, 62500



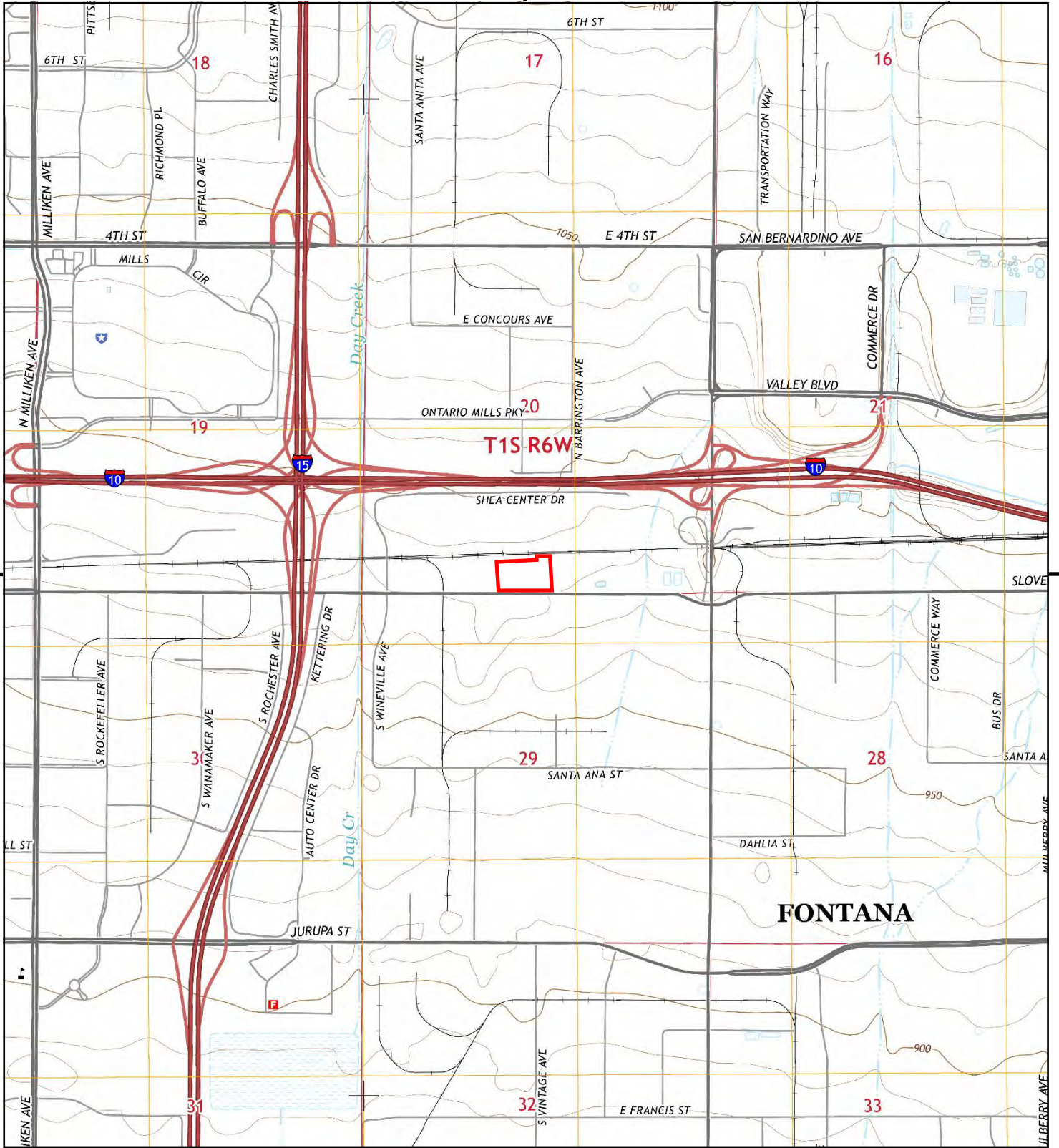
This report includes information from the following map sheet(s).



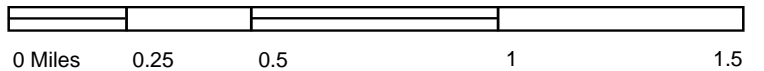
TP, Guasti, 2018, 7.5-minute

**SITE NAME:** 5355 East Airport Drive  
**ADDRESS:** 5355 East Airport Drive  
 Ontario, CA 91761  
**CLIENT:** Farallon Consulting, LLC





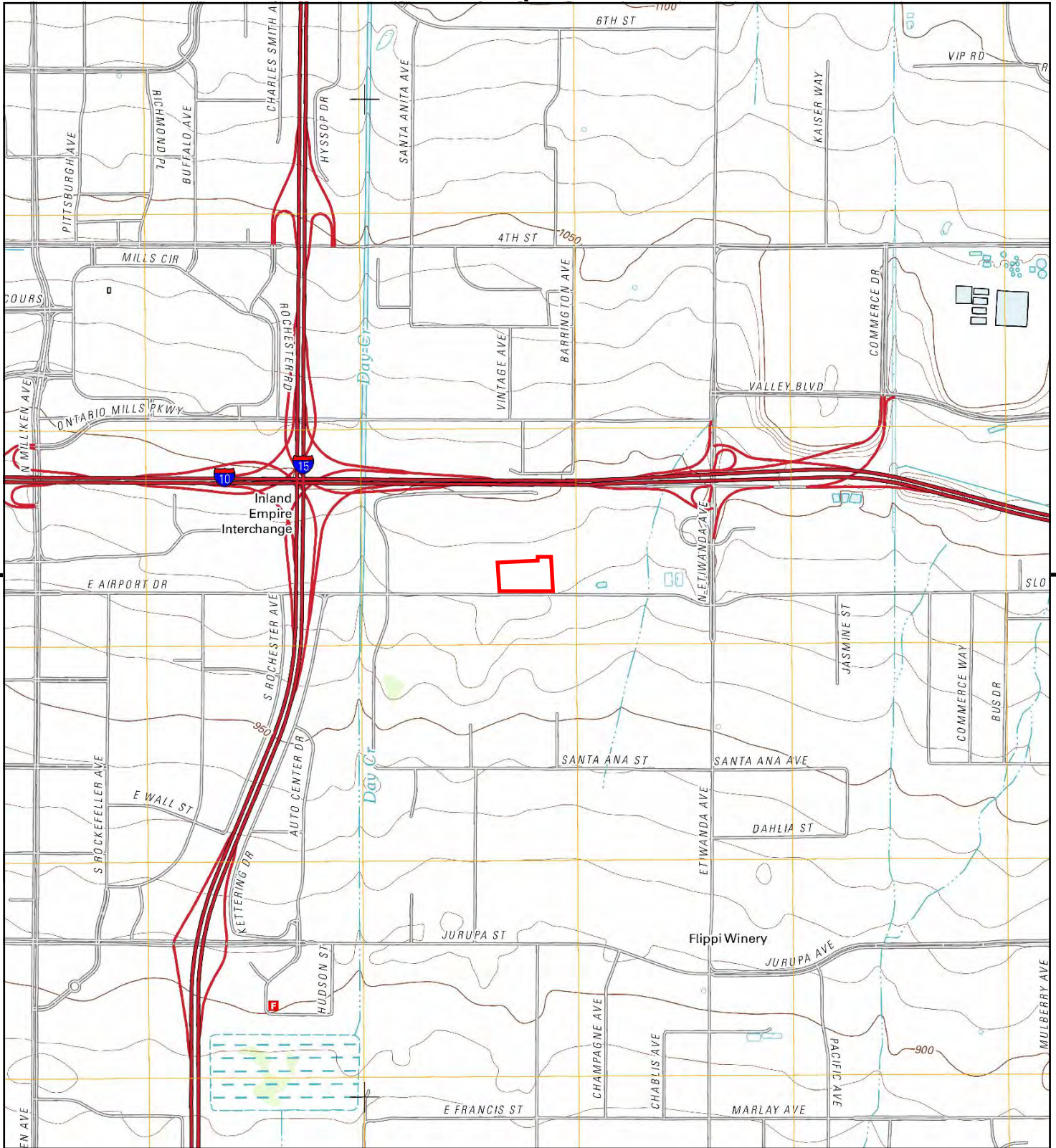
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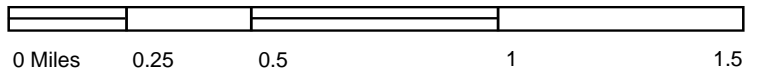
TP, Guasti, 2015, 7.5-minute

SITE NAME: 5355 East Airport Drive  
 ADDRESS: 5355 East Airport Drive  
 Ontario, CA 91761  
 CLIENT: Farallon Consulting, LLC





This report includes information from the following map sheet(s).

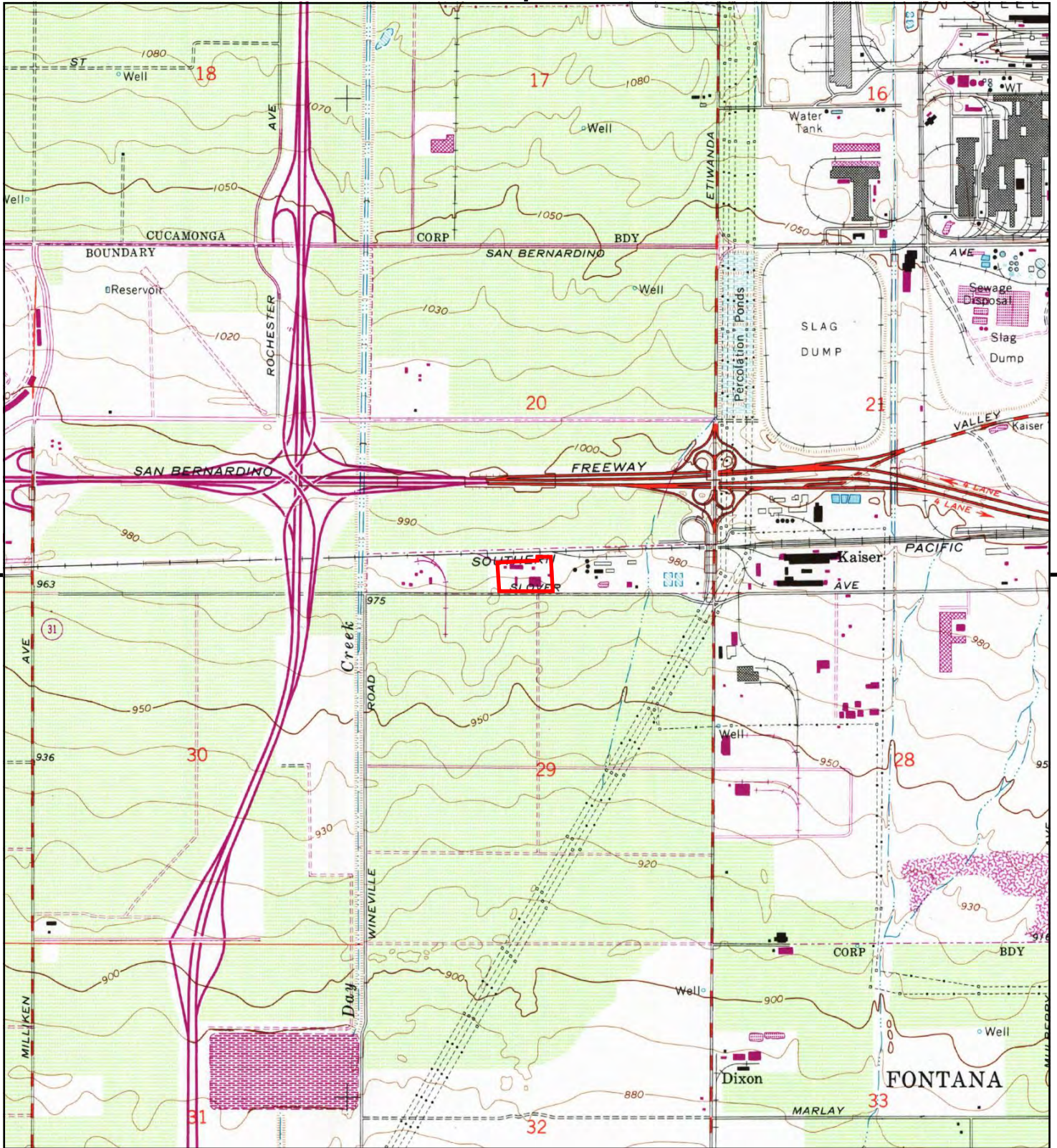


TP, Guasti, 2012, 7.5-minute

**SITE NAME:** 5355 East Airport Drive  
**ADDRESS:** 5355 East Airport Drive  
 Ontario, CA 91761  
**CLIENT:** Farallon Consulting, LLC







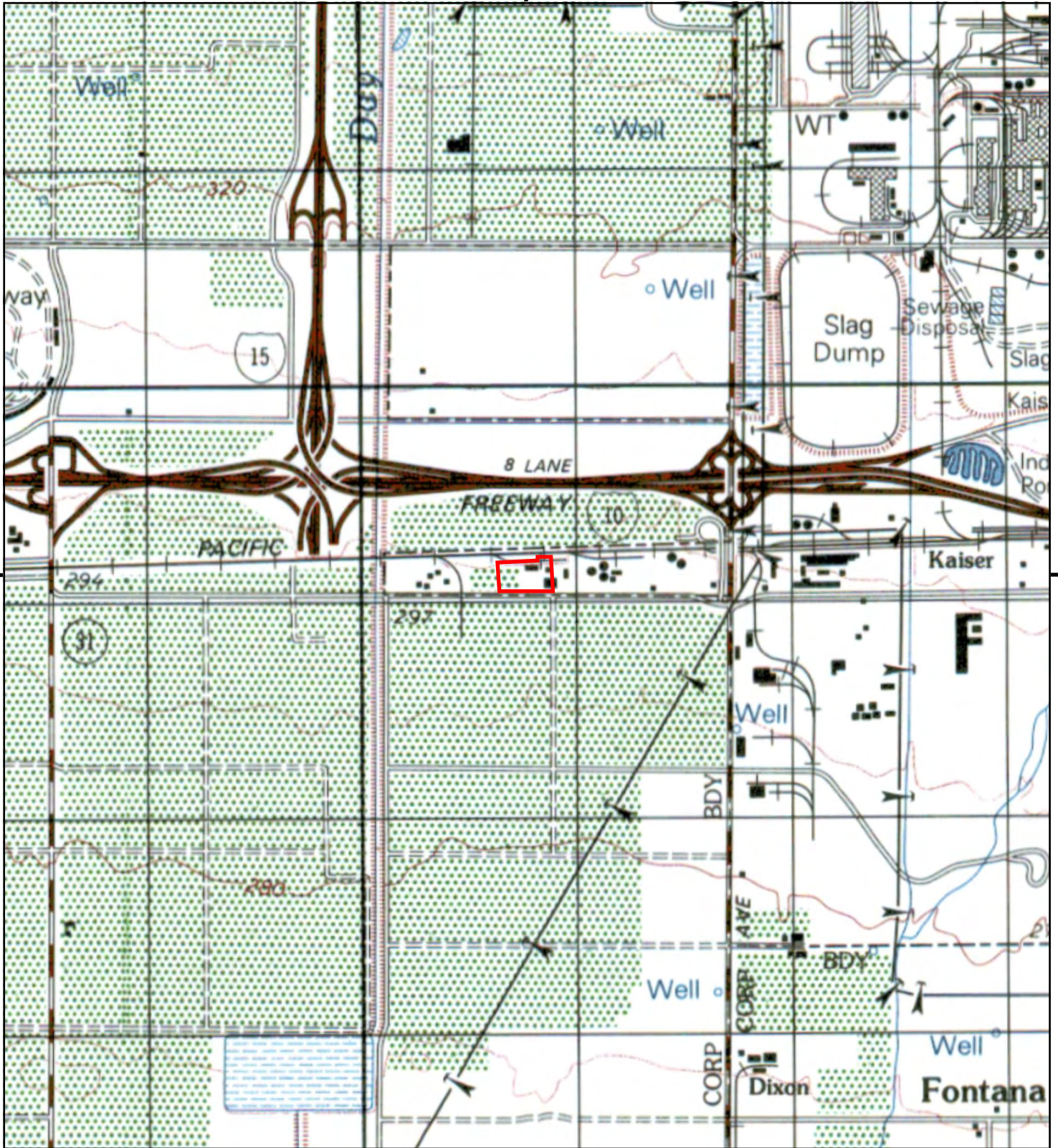
This report includes information from the following map sheet(s).



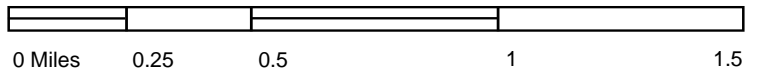
TP, Guasti, 1981, 7.5-minute

SITE NAME: 5355 East Airport Drive  
 ADDRESS: 5355 East Airport Drive  
 Ontario, CA 91761  
 CLIENT: Farallon Consulting, LLC





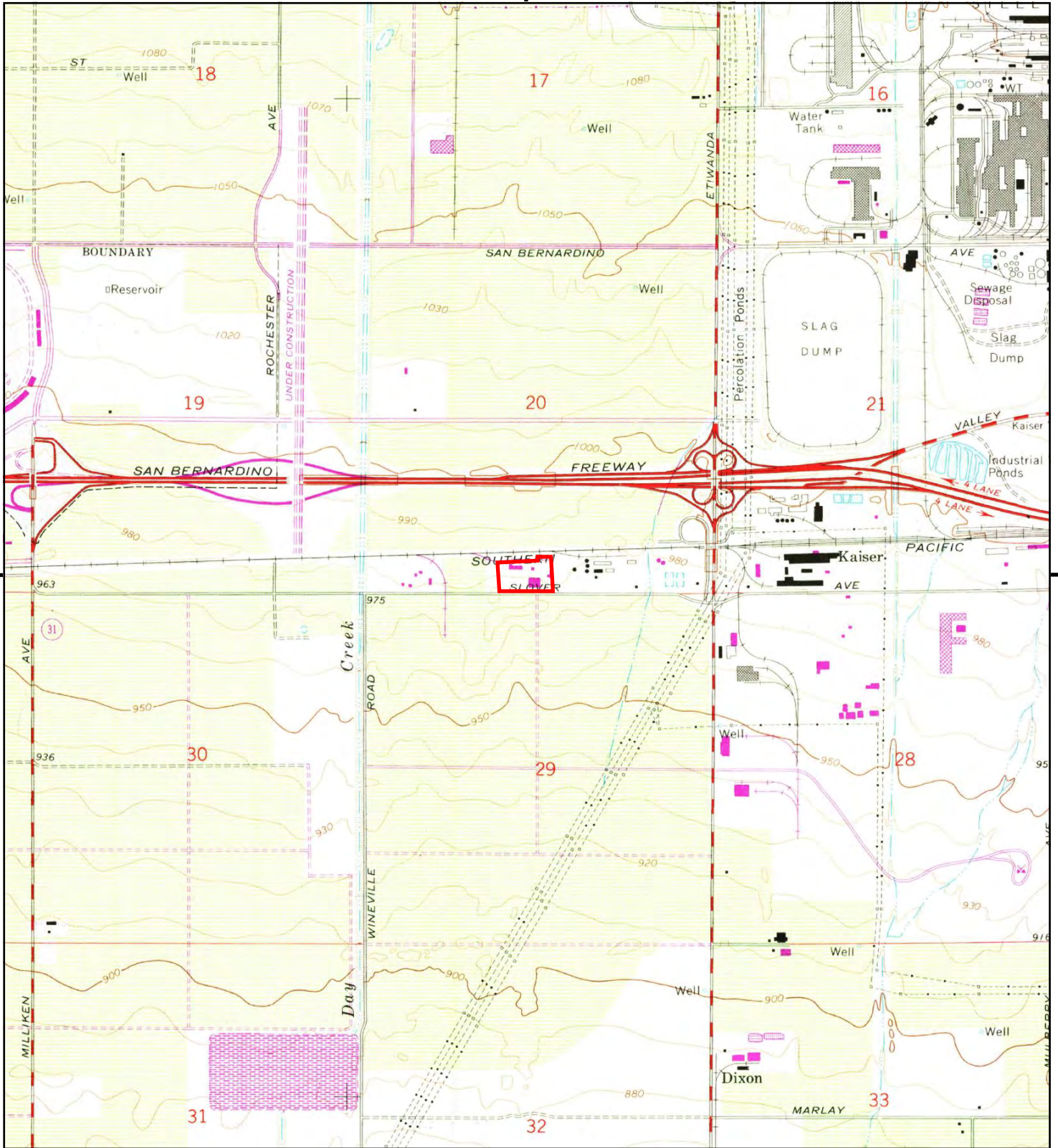
This report includes information from the following map sheet(s).



TP, ONTARIO, 1976, 15-minute

SITE NAME: 5355 East Airport Drive  
 ADDRESS: 5355 East Airport Drive  
 Ontario, CA 91761  
 CLIENT: Farallon Consulting, LLC





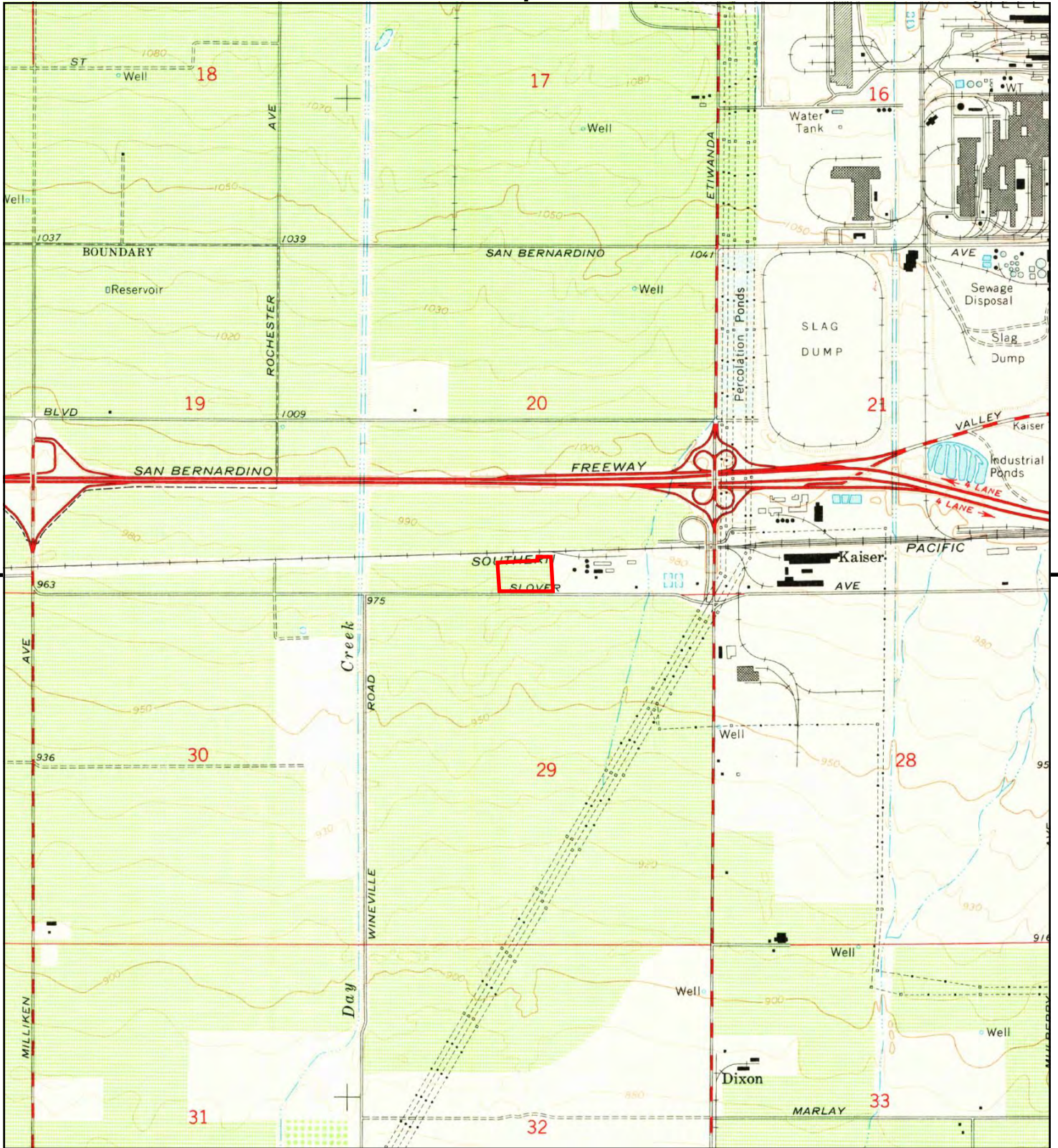
This report includes information from the following map sheet(s).



TP, Guasti, 1973, 7.5-minute

**SITE NAME:** 5355 East Airport Drive  
**ADDRESS:** 5355 East Airport Drive  
 Ontario, CA 91761  
**CLIENT:** Farallon Consulting, LLC





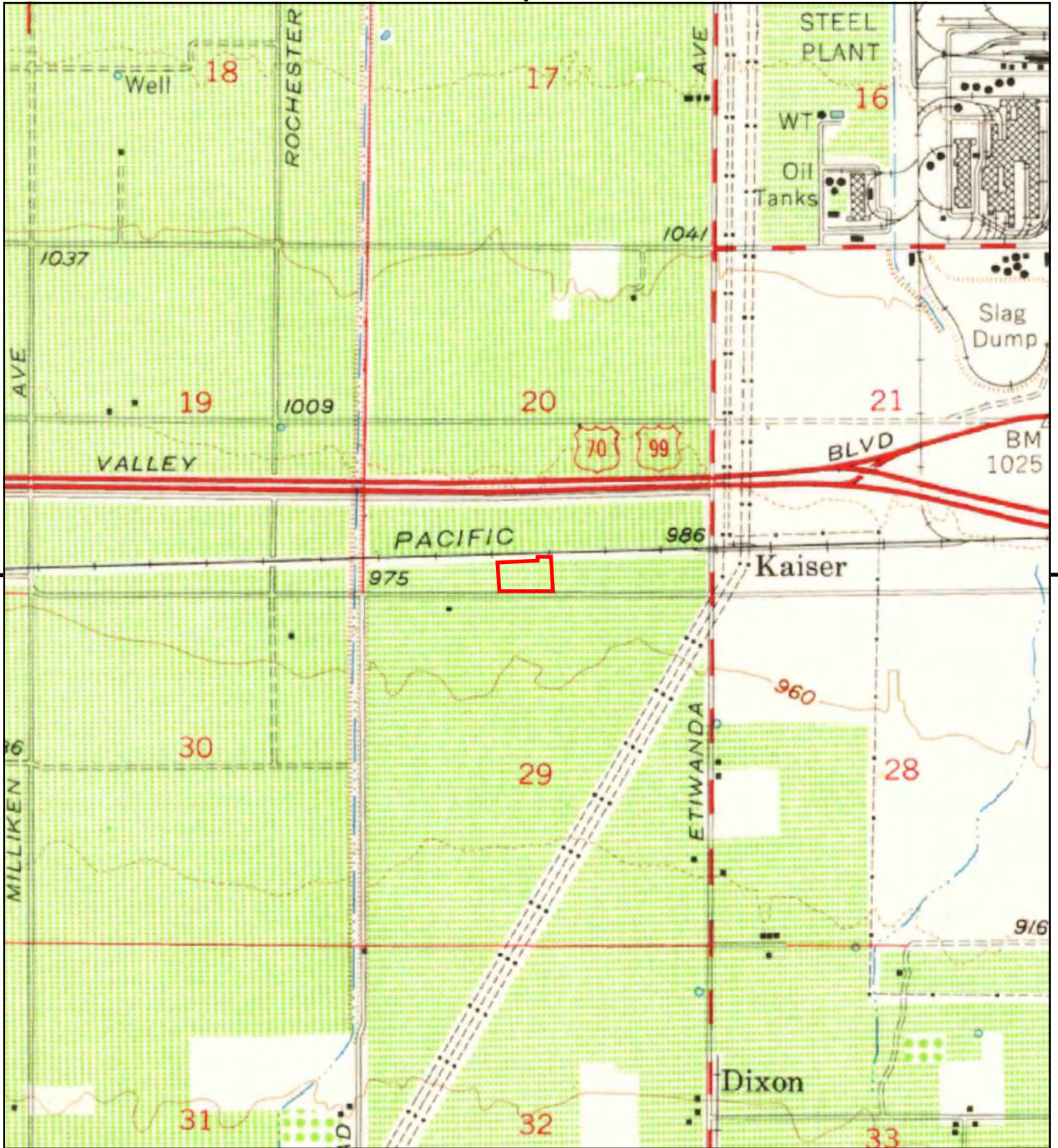
This report includes information from the following map sheet(s).



TP, Guasti, 1966, 7.5-minute

SITE NAME: 5355 East Airport Drive  
 ADDRESS: 5355 East Airport Drive  
 Ontario, CA 91761  
 CLIENT: Farallon Consulting, LLC





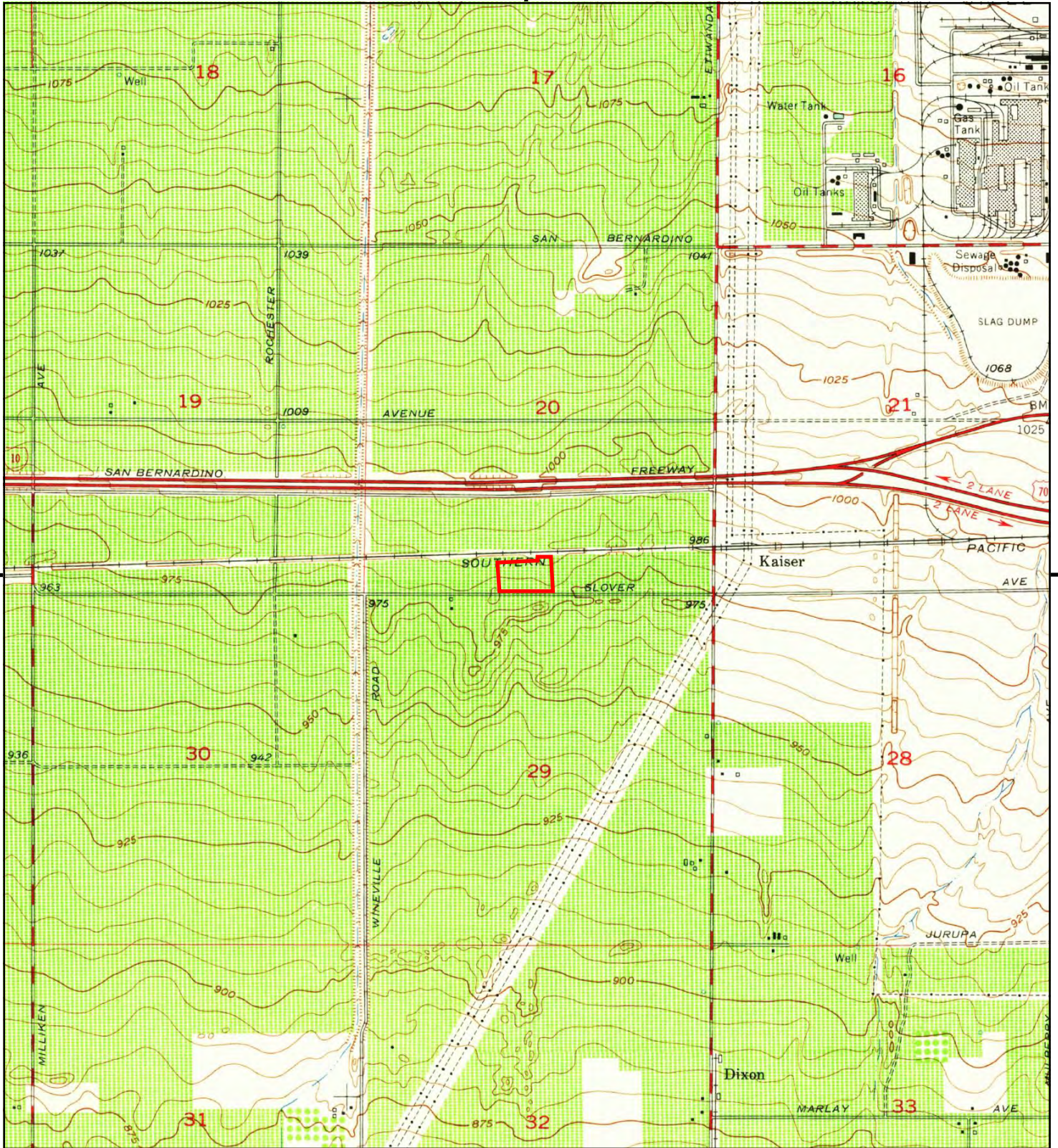
This report includes information from the following map sheet(s).



TP, Ontario, 1954, 15-minute

SITE NAME: 5355 East Airport Drive  
 ADDRESS: 5355 East Airport Drive  
 Ontario, CA 91761  
 CLIENT: Farallon Consulting, LLC





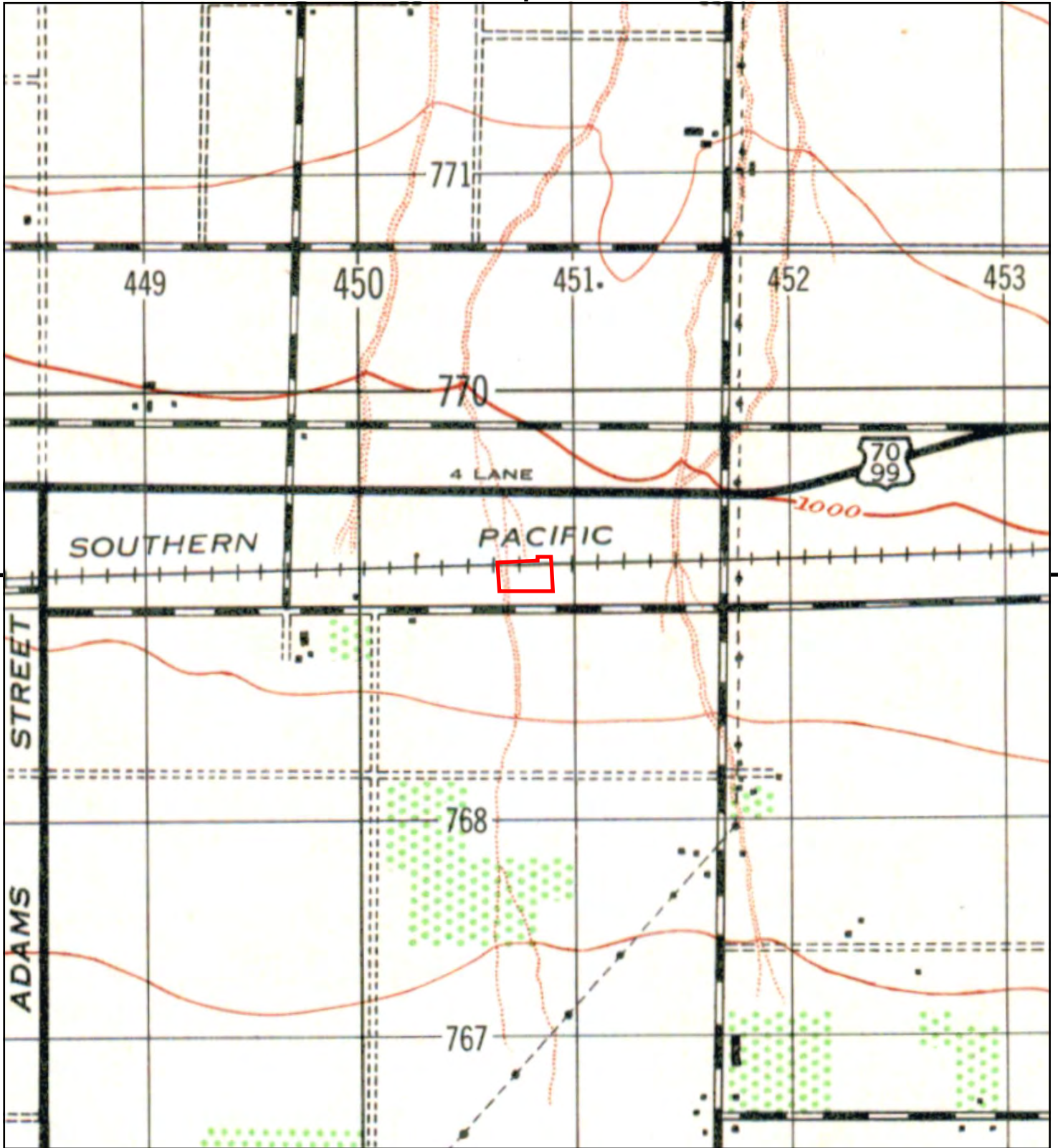
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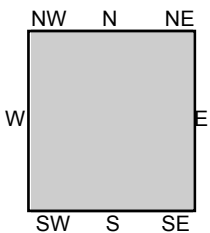
TP, Guasti, 1953, 7.5-minute

SITE NAME: 5355 East Airport Drive  
 ADDRESS: 5355 East Airport Drive  
 Ontario, CA 91761  
 CLIENT: Farallon Consulting, LLC





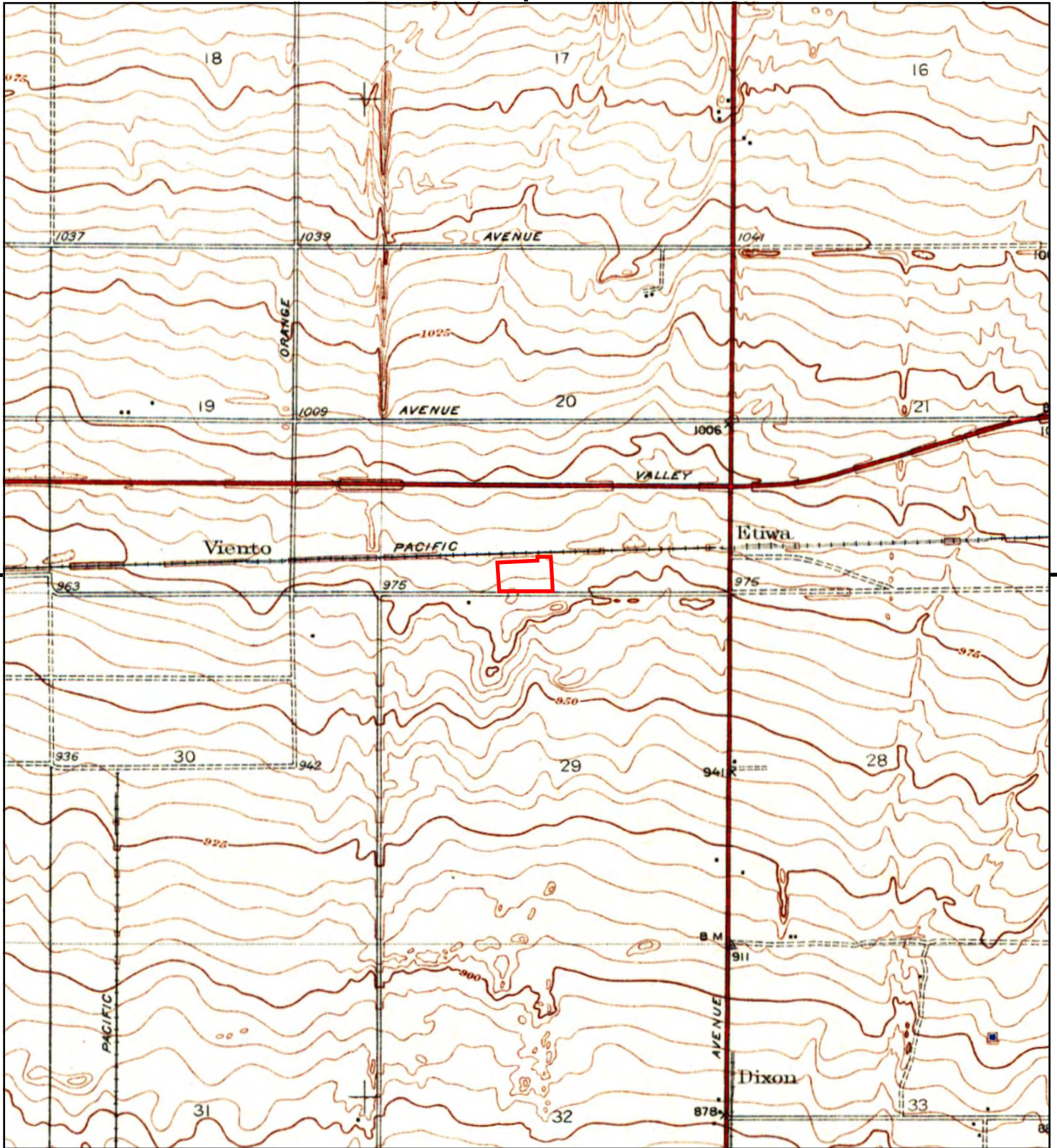
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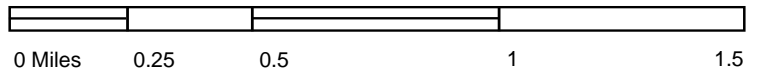
TP, CUCAMONGA, 1944, 15-minute

SITE NAME: 5355 East Airport Drive  
ADDRESS: 5355 East Airport Drive  
Ontario, CA 91761  
CLIENT: Farallon Consulting, LLC





This report includes information from the following map sheet(s).

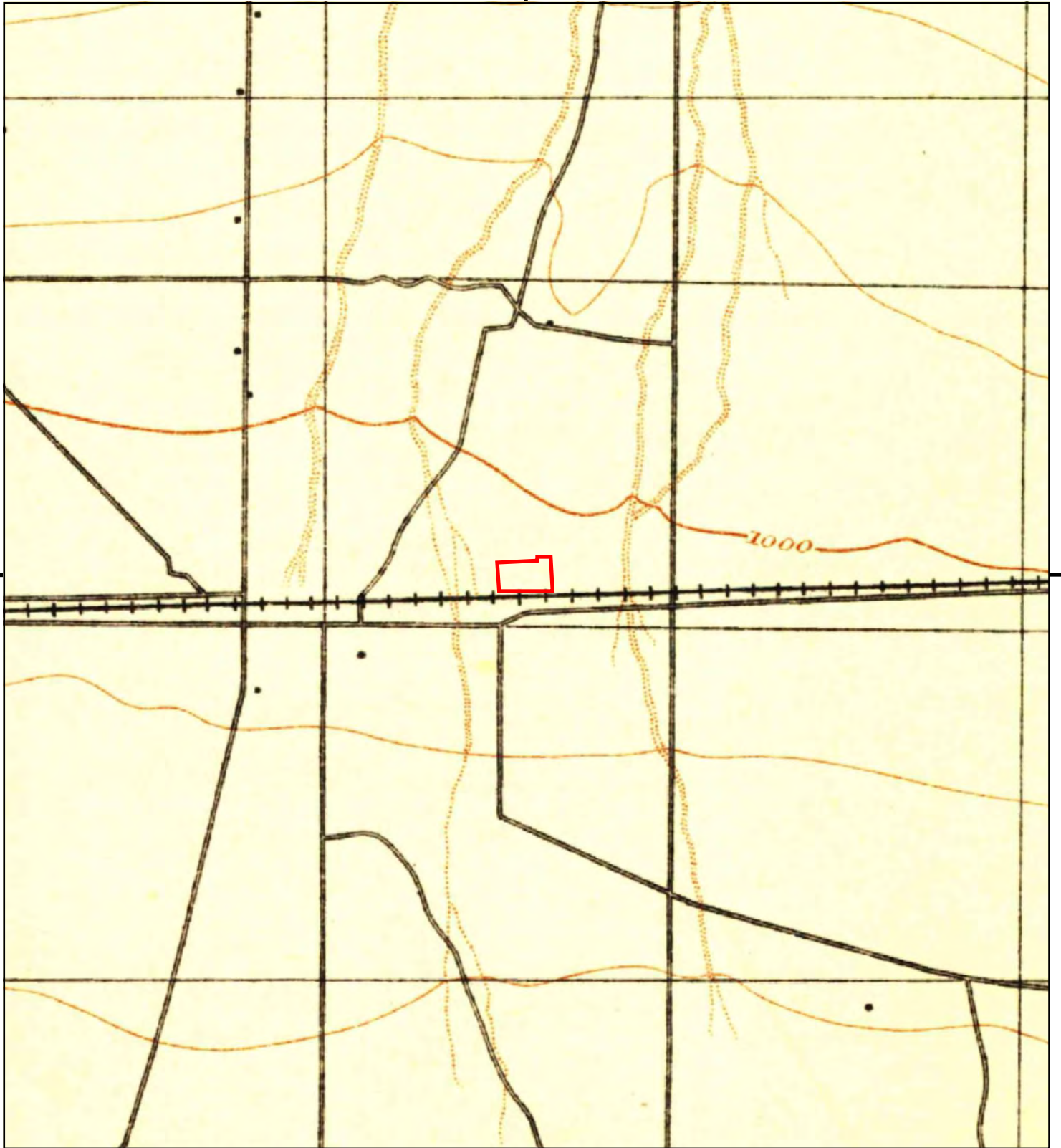


TP, GUASTI VICINITY, 1941, 7.5-minute

SITE NAME: 5355 East Airport Drive  
 ADDRESS: 5355 East Airport Drive  
 Ontario, CA 91761  
 CLIENT: Farallon Consulting, LLC







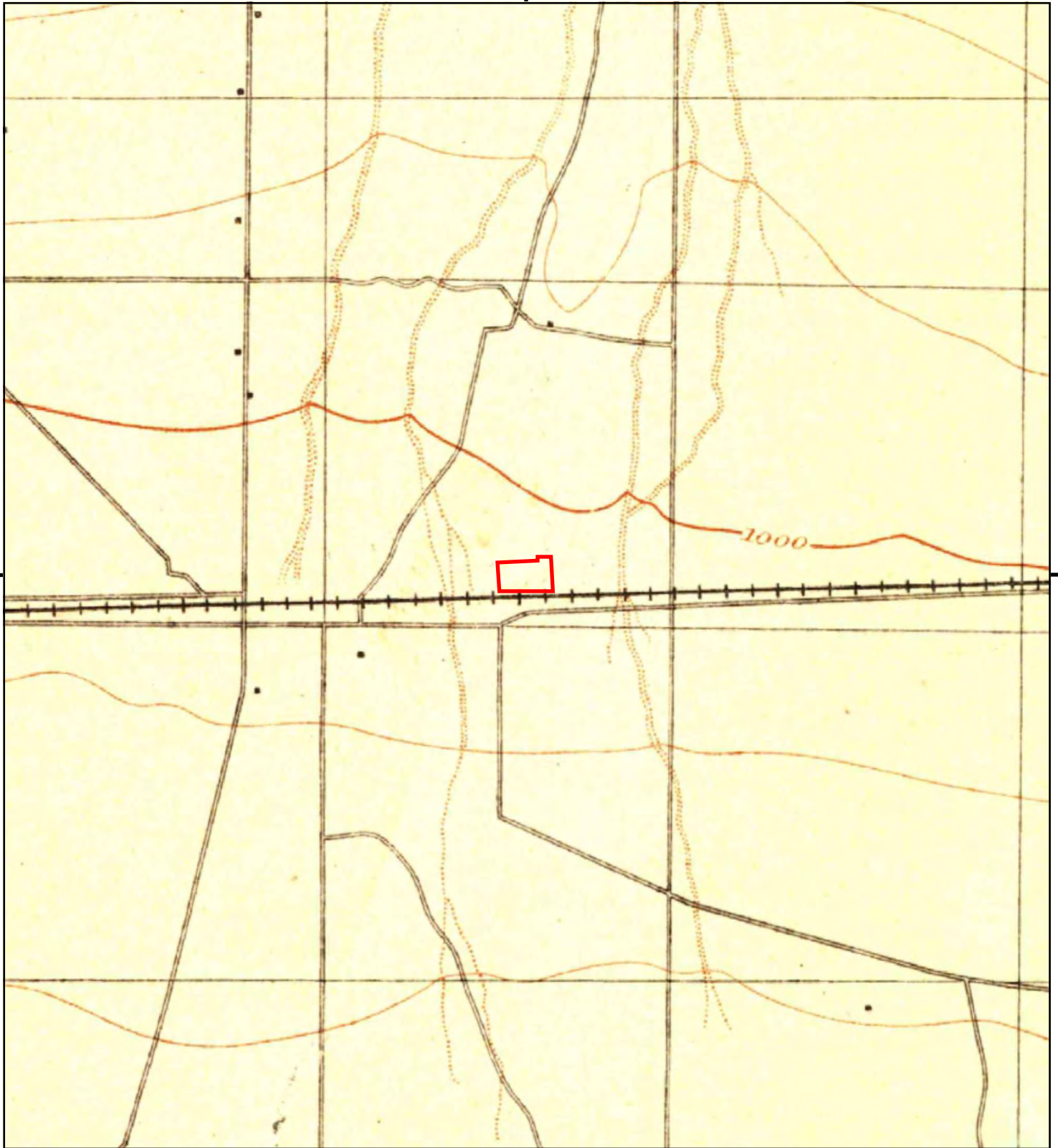
This report includes information from the following map sheet(s).



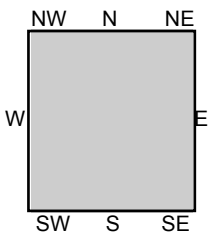
TP, Cucamonga, 1903, 15-minute

SITE NAME: 5355 East Airport Drive  
ADDRESS: 5355 East Airport Drive  
Ontario, CA 91761  
CLIENT: Farallon Consulting, LLC





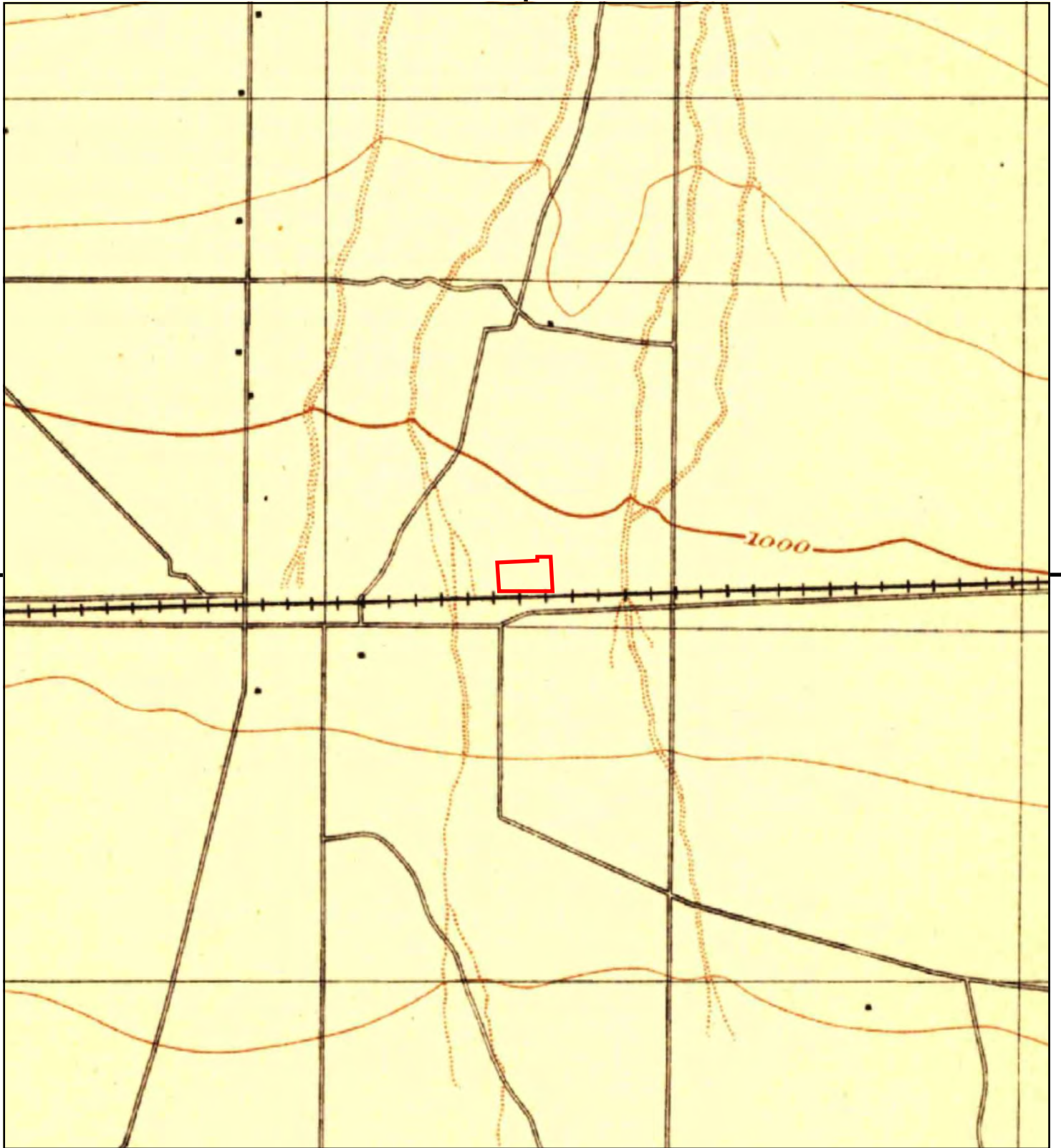
This report includes information from the following map sheet(s).



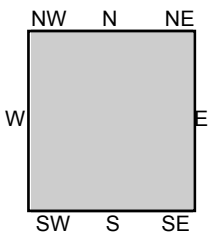
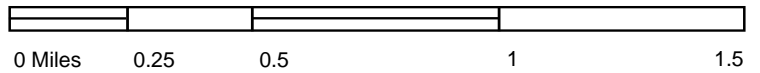
TP, Cucamonga, 1900, 15-minute

SITE NAME: 5355 East Airport Drive  
ADDRESS: 5355 East Airport Drive  
Ontario, CA 91761  
CLIENT: Farallon Consulting, LLC





This report includes information from the following map sheet(s).



TP, Cucamonga, 1897, 15-minute

SITE NAME: 5355 East Airport Drive  
ADDRESS: 5355 East Airport Drive  
Ontario, CA 91761  
CLIENT: Farallon Consulting, LLC



5355 East Airport Drive

5355 East Airport Drive

Ontario, CA 91761

Inquiry Number: 6782886.3

December 09, 2021

## Certified Sanborn® Map Report



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

# Certified Sanborn® Map Report

12/09/21

**Site Name:**

5355 East Airport Drive  
5355 East Airport Drive  
Ontario, CA 91761  
EDR Inquiry # 6782886.3

**Client Name:**

Farallon Consulting, LLC  
4380 South Macadam Avenue, Suite 500  
Portland, OR 97239  
Contact: Amanda Garcia



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## Certified Sanborn Results:

**Certification #** 6351-4FE0-BBFD  
**PO #** 1071-080-002  
**Project** 1071-080-002

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Sanborn® Library search results

Certification #: 6351-4FE0-BBFD

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- Library of Congress
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UGST PERMIT(S) CANNOT PROCESSED WITHOUT A COMPLETE APPLICATION FOR EACH TANK.

THIS FORM MUST BE RETURNED WITH YOUR REMITTANCE

Department of Environmental Health Services  
 Hazardous Waste & Toxics Control  
 385 N. Arrowhead Avenue  
 San Bernardino, CA 92415-0160

STATE ID NUMBER

APPLICATION FOR PERMIT TO OPERATE UNDERGROUND STORAGE TANK

<input type="checkbox"/> 01 NEW PERMIT	<input type="checkbox"/> 05 RENEWED PERMIT	<input type="checkbox"/>	DELETE FROM FILE (NO FEE)
<input type="checkbox"/> 02 CONDITIONAL PERMIT	<input type="checkbox"/> 06 AMENDED PERMIT	<input type="checkbox"/>	
COAST GRAIN MILLING 5355 EAST AIRPORT DR ONTARIO, CA. 91761			COUNTY ONLY <input type="checkbox"/> 02 STATE <input type="checkbox"/> 03 LOCAL STATE      ZIP

8 SETS of plans

II FACILITY

FACILITY NAME		DEALER/FOREMAN/SUPERVISOR	
STREET ADDRESS		NEAREST CROSS STREET	
CITY	COUNTY	ZIP	
MAILING ADDRESS	CITY	STATE	ZIP
PHONE W/AREA CODE	TYPE OF BUSINESS <input type="checkbox"/> 01 GASOLINE STATION <input type="checkbox"/> 02 OTHER		
NUMBER OF CONTAINERS	RURAL AREAS ONLY :	TOWNSHIP	RANGE SECTION

III 24 HOUR EMERGENCY CONTACT PERSON

DAYS: NAME(LAST NAME FIRST) AND PHONE W/AREA CODE	NIGHTS: NAME(LAST NAME FIRST) AND PHONE W/AREA CODE
---	---

COMPLETE THE FOLLOWING ON A SEPARATE FORM FOR EACH CONTAINER

IV DESCRIPTION

A. <input type="checkbox"/> 01 TANK <input type="checkbox"/> 04 OTHER:	CONTAINER NUMBER <i>4 West</i>
B. MANUFACTURER (IF APPROPRIATE):	YEAR MFG:      C. YEAR INSTALLED <input checked="" type="checkbox"/> UNKNOWN
D. CONTAINER CAPACITY: <i>4000</i> GALLONS <input type="checkbox"/> UNKNOWN	E. DOES THE CONTAINER STORE: <input type="checkbox"/> 01 WASTE <input checked="" type="checkbox"/> 02 PRODUCT
F. DOES THE CONTAINER STORE MOTOR VEHICLE FUEL OR WASTE OIL ? <input type="checkbox"/> 01 YES <input type="checkbox"/> 02 NO IF YES CHECK APPROPRIATE BOX(ES): <input type="checkbox"/> 01 UNLEADED <input type="checkbox"/> 02 REGULAR <input type="checkbox"/> 03 PREMIUM <input checked="" type="checkbox"/> 04 DIESEL <input type="checkbox"/> 05 WASTE OIL <input type="checkbox"/> 06 OTHER	

V CONTAINER CONSTRUCTION

A. THICKNESS OF PRIMARY CONTAINMENT: <input type="checkbox"/> GAUGE <input type="checkbox"/> INCHES <input type="checkbox"/> CM <input checked="" type="checkbox"/> UNKNOWN
B. <input type="checkbox"/> 01 VAULTED (LOCATED IN AN UNDERGROUND VAULT) <input checked="" type="checkbox"/> 02 NON-VAULTED <input type="checkbox"/> 03 UNKNOWN
C. <input type="checkbox"/> 01 DOUBLE WALLED <input checked="" type="checkbox"/> 02 SINGLE WALLED <input type="checkbox"/> 03 LINED
D. <input type="checkbox"/> 01 CARBON STEEL <input type="checkbox"/> 02 STAINLESS STEEL <input type="checkbox"/> 03 FIBERGLASS <input type="checkbox"/> 04 POLYVINYL CHLORIDE <input type="checkbox"/> 05 CONCRETE <input type="checkbox"/> 06 ALUMINUM <input type="checkbox"/> 07 STEEL CLAD <input type="checkbox"/> 08 BRONZE <input type="checkbox"/> 09 COMPOSITE <input type="checkbox"/> 10 NON-METALLIC <input checked="" type="checkbox"/> 12 UNKNOWN <input type="checkbox"/> 13 OTHER:

## CONTAINER CONSTRUCTION

E.  01 RUBBER LINED  02 ALKYL LINING  03 EPOXY LINING  04 PHENOLIC LINING  05 GLASS LINING  
 07 UNLINED  08 UNKNOWN  09 OTHER:

F.  01 POLYETHYLENE WRAP  02 VINYL WRAPPING  03 CATHODIC PROTECTION  04 UNKNOWN  05 NONE  
 06 TAR OR ASPHALT  09 OTHER:

## VI PIPING

A. ABOVEGROUND PIPING:  01 DOUBLE-WALLED PIPE  02 CONCRETE-LINED TRENCH  03 GRAVITY  
(CHECK APPROPRIATE BOX(ES))  04 PRESSURE  05 SUCTION  06 UNKNOWN  07 NONE

B. UNDERGROUND PIPING:  01 DOUBLE-WALLED PIPE  02 CONCRETE-LINED TRENCH  03 GRAVITY  
(CHECK APPROPRIATE BOX(ES))  04 PRESSURE  05 SUCTION  06 UNKNOWN  07 NONE

## VII LEAK DETECTION

01 VISUAL  02 STOCK INVENTORY  04 VAPOR SHIFF WELLS  05 SENSOR INSTRUMENT  
 06 GROUND WATER MONITORING WELLS  07 PRESSURE TEST  09 NONE  10 OTHER:

## VIII CHEMICAL COMPOSITION OF MATERIALS STORED IN UNDERGROUND CONTAINERS

IF YOU CHECKED YES TO IV-F YOU ARE NOT REQUIRED TO COMPLETE THIS SECTION

CURRENTLY STORED	PREVIOUSLY STORED	DELETE	CASE (IF KNOWN)	CHEMICAL (DO NOT USE COMMERCIAL NAME)
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		

IS CONTAINER LOCATED ON AN AGRICULTURAL FARM?  01 YES  02 NO

THIS FORM HAS BEEN COMPLETED UNDER THE PENALTY OF PERJURY AND, TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT.

PERSON FILING (SIGNATURE) \_\_\_\_\_ PHONE W/AREA CODE \_\_\_\_\_

## FOR LOCAL AGENCY USE ONLY

ADMINISTRATING AGENCY		CITY CODE	COUNTY CODE	
CONTACT PERSON			PHONE W/AREA CODE	
DATE OF LAST INSPECTION	IN COMPLIANCE <input type="checkbox"/> 01 YES <input type="checkbox"/> 02 NO	PERMIT APPROVAL DATE	TRANSACTION DATE	LOCAL PERMIT ID #

UGST PERMIT(S) CANNOT : PROCESSED WITHOUT A COMPLETED APPLICATION FOR EACH TANK.

THIS FORM MUST BE RETURNED WITH YOUR REMITTANCE

Department of Environmental Health Services  
 Hazardous Waste & Toxics Control  
 385 N. Arrowhead Avenue  
 San Bernardino, CA 92415-0160

STATE ID NUMBER

APPLICATION FOR PERMIT TO OPERATE UNDERGROUND STORAGE TANK

<input type="checkbox"/> 01 NEW PERMIT	<input type="checkbox"/> 05 RENEWED PERMIT	<input type="checkbox"/> 07 TANK CLOSED	<input type="checkbox"/> 09 DELETE FROM FILE (NO FEE)
<input type="checkbox"/> 02 CONDITIONAL PERMIT	<input type="checkbox"/> 06 AMENDED PERMIT	<input type="checkbox"/> 08 MINOR CHANGE (NO SURCHARGE)	

COAST GRAIN MILLING 5355 EAST AIRPORT DR ONTARIO, CA. 91761		PUBLIC AGENCY ONLY <input type="checkbox"/> 01 FED <input type="checkbox"/> 02 STATE <input type="checkbox"/> 03 LOCAL	
	STATE		ZIP

II FACILITY

FACILITY NAME		DEALER/FOREMAN/SUPERVISOR	
STREET ADDRESS		NEAREST CROSS STREET	
CITY	COUNTY	ZIP	
MAILING ADDRESS	CITY	STATE	ZIP
PHONE N/AREA CODE	TYPE OF BUSINESS <input type="checkbox"/> 01 GASOLINE STATION <input type="checkbox"/> 02 OTHER		
NUMBER OF CONTAINERS	RURAL AREAS ONLY :	TOWNSHIP	RANGE SECTION

III 24 HOUR EMERGENCY CONTACT PERSON

DAY: NAME (LAST NAME FIRST) AND PHONE N/AREA CODE	NIGHT: NAME (LAST NAME FIRST) AND PHONE N/AREA CODE
---	---

COMPLETE THE FOLLOWING ON A SEPARATE FORM FOR EACH CONTAINER

IV DESCRIPTION

A. <input type="checkbox"/> 01 TANK <input type="checkbox"/> 04 OTHER:	CONTAINER NUMBER <u>3 EAST</u>
B. MANUFACTURER (IF APPROPRIATE):	YEAR MFG: C. YEAR INSTALLED <input checked="" type="checkbox"/> UNKNOWN
D. CONTAINER CAPACITY: <u>4000</u> GALLONS <input type="checkbox"/> UNKNOWN	E. DOES THE CONTAINER STORE: <input type="checkbox"/> 01 WASTE <input checked="" type="checkbox"/> 02 PRODUCT
F. DOES THE CONTAINER STORE MOTOR VEHICLE FUEL OR WASTE OIL ? <input type="checkbox"/> 01 YES <input type="checkbox"/> 02 NO IF YES CHECK APPROPRIATE BOX(ES): <input type="checkbox"/> 01 UNLEADED <input type="checkbox"/> 02 REGULAR <input type="checkbox"/> 03 PREMIUM <input checked="" type="checkbox"/> 04 DIESEL <input type="checkbox"/> 05 WASTE OIL <input type="checkbox"/> 06 OTHER	

V CONTAINER CONSTRUCTION

A. THICKNESS OF PRIMARY CONTAINMENT: <input type="checkbox"/> GAUGE <input type="checkbox"/> INCHES <input type="checkbox"/> CM <input checked="" type="checkbox"/> UNKNOWN
B. <input type="checkbox"/> 01 VAULTED (LOCATED IN AN UNDERGROUND VAULT) <input checked="" type="checkbox"/> 02 NON-VAULTED <input type="checkbox"/> 03 UNKNOWN
C. <input type="checkbox"/> 01 DOUBLE WALLED <input checked="" type="checkbox"/> 02 SINGLE WALLED <input type="checkbox"/> 03 LINED
D. <input type="checkbox"/> 01 CARBON STEEL <input type="checkbox"/> 02 STAINLESS STEEL <input type="checkbox"/> 03 FIBERGLASS <input type="checkbox"/> 04 POLYVINYL CHLORIDE <input type="checkbox"/> 05 CONCRETE <input type="checkbox"/> 06 ALUMINUM <input type="checkbox"/> 07 STEEL CLAD <input type="checkbox"/> 08 BRONZE <input type="checkbox"/> 09 COMPOSITE <input type="checkbox"/> 10 NON-METALLIC <input checked="" type="checkbox"/> 12 UNKNOWN <input type="checkbox"/> 13 OTHER:



## CONTAINER CONSTRUCTION

E.  01 RUBBER LINED  02 ALKYL LINING  03 EPOXY LINING  04 PHENOLIC LINING  05 GLASS LINING  
 07 UNLINED  08 UNKNOWN  09 OTHER:

F.  01 POLYETHYLENE WRAP  02 VINYL WRAPPING  03 CATHODIC PROTECTION  04 UNKNOWN  05 NONE  
 06 TAP OR ASPHALT  09 OTHER:

## VI PIPING

A. ABOVEGROUND PIPING:  01 DOUBLE-WALLED PIPE  02 CONCRETE-LINED TRENCH  03 GRAVITY  
 (CHECK APPROPRIATE BOX(ES))  04 PRESSURE  05 SUCTION  06 UNKNOWN  07 NONE

B. UNDERGROUND PIPING:  01 DOUBLE-WALLED PIPE  02 CONCRETE-LINED TRENCH  03 GRAVITY  
 (CHECK APPROPRIATE BOX(ES))  04 PRESSURE  05 SUCTION  06 UNKNOWN  07 NONE

## VII LEAK DETECTION

01 VISUAL  02 STOCK INVENTORY  04 VAPOR SNIFF WELLS  05 SENSOR INSTRUMENT  
 06 GROUND WATER MONITORING WELLS  07 PRESSURE TEST  09 NONE  10 OTHER:

## VIII CHEMICAL COMPOSITION OF MATERIALS STORED IN UNDERGROUND CONTAINERS

IF YOU CHECKED YES TO IV-F YOU ARE NOT REQUIRED TO COMPLETE THIS SECTION

CURRENTLY STORED	PREVIOUSLY STORED	DELETE	CASE (IF KNOWN)	CHEMICAL (DO NOT USE COMMERCIAL NAME)
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		

IS CONTAINER LOCATED ON AN AGRICULTURAL FARM?  01 YES  02 NO

THIS FORM HAS BEEN COMPLETED UNDER THE PENALTY OF PERJURY AND, TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT.

PERSON FILING (SIGNATURE)

PHONE W/AREA CODE

## FOR LOCAL AGENCY USE ONLY

ADMINISTRATING AGENCY	CITY CODE	COUNTY CODE		
CONTACT PERSON	PHONE W/AREA CODE			
DATE OF LAST INSPECTION	IN COMPLIANCE <input type="checkbox"/> 01 YES <input type="checkbox"/> 02 NO	PERMIT APPROVAL DATE	TRANSACTION DATE	LOCAL PERMIT ID #

UGST PERMIT(S) CANNOT BE PROCESSED WITHOUT A COMPLETED APPLICATION FOR EACH TANK.

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 Hazardous Waste & Toxics Control  
 385 N. Arrowhead Avenue  
 San Bernardino, CA 92415-0160

STATE ID NUMBER

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<input type="checkbox"/> 01 NEW PERMIT	<input checked="" type="checkbox"/> 05 RENEWED PERMIT	<input type="checkbox"/> 07 TANK CLOSED	<input type="checkbox"/> 09 DELETE FROM FILE (NO FEE)
<input type="checkbox"/> 02 CONDITIONAL PERMIT	<input type="checkbox"/> 06 AMENDED PERMIT	<input type="checkbox"/> 08 MINOR CHANGE (NO SURCHARGE)	

I		COAST GRAIN MILLING	EC AGENCY ONLY	
NA	5355 EAST AIRPORT DR		<input type="checkbox"/> 01 FED	<input type="checkbox"/> 02 STATE
ST	ONTARIO, CA 91761		<input type="checkbox"/> 03 LOCAL	
			STATE	ZIP

II FACILITY

FACILITY NAME COAST GRAIN MILLING		DEALER/FOREMAN/SUPERVISOR CARL ALLEN		
STREET ADDRESS 5355 EAST AIRPORT DR.		NEAREST CROSS STREET ETIWANDA		
CITY ONTARIO, CA	ZIP 91761	COUNTY SAN BERNARDINO	ZIP 91761	
MAILING ADDRESS P.O. Box 3610		CITY ONTARIO	STATE CA	ZIP 91761
PHONE W/AREA CODE 714-9839766	TYPE OF BUSINESS <input type="checkbox"/> 01 GASOLINE STATION <input checked="" type="checkbox"/> 02 OTHER			
NUMBER OF CONTAINERS 4	RURAL AREAS ONLY :	TOWNSHIP	RANGE	SECTION

III 24 HOUR EMERGENCY CONTACT PERSON

DAY: NAME (LAST NAME FIRST) AND PHONE W/AREA CODE MARTINEZ LEONARD 714-9839766	NIGHT: NAME (LAST NAME FIRST) AND PHONE W/AREA CODE LATIMER DWAIN 714-9839766
---	--

COMPLETE THE FOLLOWING ON A SEPARATE FORM FOR EACH CONTAINER

IV DESCRIPTION

A. <input type="checkbox"/> 01 TANK <input type="checkbox"/> 04 OTHER:	CONTAINER NUMBER 1 North		
B. MANUFACTURER (IF APPROPRIATE):	YEAR MFG:	C. YEAR INSTALLED <input checked="" type="checkbox"/> UNKNOWN	
D. CONTAINER CAPACITY: 10000 GALLONS <input type="checkbox"/> UNKNOWN	E. DOES THE CONTAINER STORE: <input type="checkbox"/> 01 WASTE <input checked="" type="checkbox"/> 02 PRODUCT		
F. DOES THE CONTAINER STORE MOTOR VEHICLE FUEL OR WASTE OIL? <input checked="" type="checkbox"/> 01 YES <input type="checkbox"/> 02 NO IF YES CHECK APPROPRIATE BOX(ES): <input checked="" type="checkbox"/> 01 UNLEADED <input type="checkbox"/> 02 REGULAR <input type="checkbox"/> 03 PREMIUM <input type="checkbox"/> 04 DIESEL <input type="checkbox"/> 05 WASTE OIL <input type="checkbox"/> 06 OTHER			

V CONTAINER CONSTRUCTION

A. THICKNESS OF PRIMARY CONTAINMENT:	<input type="checkbox"/> GAUGE <input type="checkbox"/> INCHES <input type="checkbox"/> CM <input checked="" type="checkbox"/> UNKNOWN
B. <input type="checkbox"/> 01 VAULTED (LOCATED IN AN UNDERGROUND VAULT) <input checked="" type="checkbox"/> 02 NON-VAULTED <input type="checkbox"/> 03 UNKNOWN	
C. <input type="checkbox"/> 01 DOUBLE WALLED <input checked="" type="checkbox"/> 02 SINGLE WALLED <input type="checkbox"/> 03 LINED	
D. <input type="checkbox"/> 01 CARBON STEEL <input type="checkbox"/> 02 STAINLESS STEEL <input type="checkbox"/> 03 FIBERGLASS <input type="checkbox"/> 04 POLYVINYL CHLORIDE <input type="checkbox"/> 05 CONCRETE <input type="checkbox"/> 06 ALUMINUM <input type="checkbox"/> 07 STEEL CLAD <input type="checkbox"/> 08 BRONZE <input type="checkbox"/> 09 COMPOSITE <input type="checkbox"/> 10 NON-METALLIC <input checked="" type="checkbox"/> 12 UNKNOWN <input type="checkbox"/> 13 OTHER:	

## CONTAINER CONSTRUCTION

E.  01 RUBBER LINED  02 ALKYL LINING  03 EPOXY LINING  04 PHENOLIC LINING  05 GLASS LINING  
 07 UNLINED  08 UNKNOWN  09 OTHER:

F.  01 POLYETHYLENE WRAP  02 VINYL WRAPPING  03 CATHODIC PROTECTION  04 UNKNOWN  05 NONE  
 06 TAP OR ASPHALT  09 OTHER:

## VI PIPING

A. ABOVEGROUND PIPING:  01 DOUBLE-WALLED PIPE  02 CONCRETE-LINED TRENCH  03 GRAVITY  
(CHECK APPROPRIATE BOX(ES))  04 PRESSURE  05 SUCTION  06 UNKNOWN  07 NONE

B. UNDERGROUND PIPING:  01 DOUBLE-WALLED PIPE  02 CONCRETE-LINED TRENCH  03 GRAVITY  
(CHECK APPROPRIATE BOX(ES))  04 PRESSURE  05 SUCTION  06 UNKNOWN  07 NONE

## VII LEAK DETECTION

01 VISUAL  02 STOCK INVENTORY  04 VAPOR SHIFF WELLS  05 SENSOR INSTRUMENT  
 06 GROUND WATER MONITORING WELLS  07 PRESSURE TEST  09 NONE  10 OTHER:

VIII CHEMICAL COMPOSITION OF MATERIALS STORED IN UNDERGROUND CONTAINERS  
IF YOU CHECKED YES TO IV-F YOU ARE NOT REQUIRED TO COMPLETE THIS SECTION

CURRENTLY STORED	PREVIOUSLY STORED	DELETE	CASE (IF KNOWN)	CHEMICAL (DO NOT USE COMMERCIAL NAME)
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		

IS CONTAINER LOCATED ON AN AGRICULTURAL FARM?  01 YES  02 NO

THIS FORM HAS BEEN COMPLETED UNDER THE PENALTY OF PERJURY AND, TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT.

PERSON FILING (SIGNATURE)

PHONE W/AREA CODE

## FOR LOCAL AGENCY USE ONLY

ADMINISTRATING AGENCY		CITY CODE		COUNTY CODE	
CONTACT PERSON			PHONE W/AREA CODE		
DATE OF LAST INSPECTION	IN COMPLIANCE <input type="checkbox"/> 01 YES <input type="checkbox"/> 02 NO	PERMIT APPROVAL DATE	TRANSACTION DATE	LOCAL PERMIT ID #	

UGST PERMIT(S) CANNOT BE PROCESSED WITHOUT A COMPLETED APPLICATION FOR EACH TANK.

THIS FORM MUST BE RETURNED WITH YOUR REMITTANCE

Department of Environmental Health Services  
 Hazardous Waste & Toxics Control  
 385 N. Arrowhead Avenue  
 San Bernardino, CA 92415-0160

STATE ID NUMBER

APPLICATION FOR PERMIT TO OPERATE UNDERGROUND STORAGE TANK

<input type="checkbox"/> 01 NEW PERMIT	<input type="checkbox"/> 05 RENEWED PERMIT	<input type="checkbox"/> 07 TANK CLOSED	<input type="checkbox"/> 09 DELETE FROM FILE (NO FEE)
<input type="checkbox"/> 02 CONDITIONAL PERMIT	<input type="checkbox"/> 06 AMENDED PERMIT	<input type="checkbox"/> 08 MINOR CHANGE (NO SURCHARGE)	

COAST GRAIN MILLING 5355 EAST AIRPORT DR ONTARIO, CA. 91761	PUBLIC AGENCY ONLY	
	<input type="checkbox"/> 01 FED	<input type="checkbox"/> 02 STATE <input type="checkbox"/> 03 LOCAL
	STATE	ZIP

II FACILITY

FACILITY NAME		DEALER/FOREMAN/SUPERVISOR	
STREET ADDRESS		NEAREST CROSS STREET	
CITY	COUNTY	ZIP	
MAILING ADDRESS		CITY	STATE ZIP
PHONE W/AREA CODE	TYPE OF BUSINESS <input type="checkbox"/> 01 GASOLINE STATION <input type="checkbox"/> 02 OTHER		
NUMBER OF CONTAINERS	RURAL AREAS ONLY :	TOWNSHIP	RANGE SECTION

III 24 HOUR EMERGENCY CONTACT PERSON

DAYS: NAME (LAST NAME FIRST) AND PHONE W/AREA CODE	NIGHTS: NAME (LAST NAME FIRST) AND PHONE W/AREA CODE
--	--

COMPLETE THE FOLLOWING ON A SEPARATE FORM FOR EACH CONTAINER

IV DESCRIPTION

A. <input type="checkbox"/> 01 TANK <input type="checkbox"/> 04 OTHER:	CONTAINER NUMBER <u>2 South</u>
B. MANUFACTURER (IF APPROPRIATE):	YEAR MFG: C. YEAR INSTALLED <input checked="" type="checkbox"/> UNKNOWN
D. CONTAINER CAPACITY: <u>10000</u> GALLONS <input type="checkbox"/> UNKNOWN	E. DOES THE CONTAINER STORE: <input type="checkbox"/> 01 WASTE <input checked="" type="checkbox"/> 02 PRODUCT
F. DOES THE CONTAINER STORE MOTOR VEHICLE FUEL OR WASTE OIL? <input checked="" type="checkbox"/> 01 YES <input type="checkbox"/> 02 NO IF YES CHECK APPROPRIATE BOX(ES): <input type="checkbox"/> 01 UNLEADED <input type="checkbox"/> 02 REGULAR <input type="checkbox"/> 03 PREMIUM <input checked="" type="checkbox"/> 04 DIESEL <input type="checkbox"/> 05 WASTE OIL <input type="checkbox"/> 06 OTHER	

V CONTAINER CONSTRUCTION

A. THICKNESS OF PRIMARY CONTAINMENT: <input type="checkbox"/> GAUGE <input type="checkbox"/> INCHES <input type="checkbox"/> CM <input checked="" type="checkbox"/> UNKNOWN
B. <input type="checkbox"/> 01 VAULTED (LOCATED IN AN UNDERGROUND VAULT) <input checked="" type="checkbox"/> 02 NON-VAULTED <input type="checkbox"/> 03 UNKNOWN
C. <input type="checkbox"/> 01 DOUBLE WALLED <input checked="" type="checkbox"/> 02 SINGLE WALLED <input type="checkbox"/> 03 LINED
D. <input type="checkbox"/> 01 CARBON STEEL <input type="checkbox"/> 02 STAINLESS STEEL <input type="checkbox"/> 03 FIBERGLASS <input type="checkbox"/> 04 POLYVINYL CHLORIDE <input type="checkbox"/> 05 CONCRETE <input type="checkbox"/> 06 ALUMINUM <input type="checkbox"/> 07 STEEL CLAD <input type="checkbox"/> 08 BRONZE <input type="checkbox"/> 09 COMPOSITE <input type="checkbox"/> 10 NON-METALLIC <input checked="" type="checkbox"/> 12 UNKNOWN <input type="checkbox"/> 13 OTHER:

STATE ID NUMBER

CONTAINER CONSTRUCTION

E.  01 RUBBER LINED  02 ALKYL LINING  03 EPOXY LINING  04 PHENOLIC LINING  05 GLASS LINING  
 07 UNLINED  08 UNKNOWN  09 OTHER:

F.  01 POLYETHYLENE WRAP  02 VINYL WRAPPING  03 CATHODIC PROTECTION  04 UNKNOWN  05 NONE  
 06 TAP OR ASPHALT  09 OTHER:

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A. ABOVEGROUND PIPING:  01 DOUBLE-WALLED PIPE  02 CONCRETE-LINED TRENCH  03 GRAVITY  
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B. UNDERGROUND PIPING:  01 DOUBLE-WALLED PIPE  02 CONCRETE-LINED TRENCH  03 GRAVITY  
(CHECK APPROPRIATE BOX(ES))  04 PRESSURE  05 SUCTION  06 UNKNOWN  07 NONE

VII LEAK DETECTION

01 VISUAL  02 STOCK INVENTORY  04 VAPOR SNIFF WELLS  05 SENSOR INSTRUMENT  
 06 GROUND WATER MONITORING WELLS  07 PRESSURE TEST  09 NONE  10 OTHER:

VIII CHEMICAL COMPOSITION OF MATERIALS STORED IN UNDERGROUND CONTAINERS  
IF YOU CHECKED YES TO IV-F YOU ARE NOT REQUIRED TO COMPLETE THIS SECTION

CURRENTLY STORED	PREVIOUSLY STORED	DELETE	CASE (IF KNOWN)	CHEMICAL (DO NOT USE COMMERCIAL NAME)
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		
<input type="checkbox"/> 01	<input type="checkbox"/> 02	<input type="checkbox"/> 03		

IS CONTAINER LOCATED ON AN AGRICULTURAL FARM?  01 YES  02 NO

THIS FORM HAS BEEN COMPLETED UNDER THE PENALTY OF PERJURY AND, TO THE BEST OF MY KNOWLEDGE, IS TRUE AND CORRECT.

PERSON FILING (SIGNATURE) PHONE N/AREA CODE

FOR LOCAL AGENCY USE ONLY

ADMINISTRATING AGENCY	CITY CODE	COUNTY CODE
CONTACT PERSON	PHONE N/AREA CODE	
DATE OF LAST INSPECTION	IN COMPLIANCE <input type="checkbox"/> 01 YES <input type="checkbox"/> 02 NO	PERMIT APPROVAL DATE
		TRANSACTION DATE
		LOCAL PERMIT ID #



HAZARDOUS MATERIALS DIVISION  
FIELD SERVICES • ENVIRONMENTAL PROTECTION  
385 North Arrowhead Avenue, Second Floor • San Bernardino, CA 92415-0153  
(909) 387-3080 • Fax (909) 387-4323

RICHARD W. SEWELL  
Fire Chief  
County Fire Warden

September 4, 1998

ELMER J. WOOD, INC  
PO BOX 1528  
RIVERSIDE, CA 92507

**SUBJECT: REMOVAL OF TWO UNDERGROUND STORAGE TANKS AT  
5355 AIRPORT, ONTARIO**

The Department has reviewed the report dated July 25, 1989, submitted by Babcock & Sons, Inc. for the facility at the subject address. The results indicate that contamination remaining in the excavation is below that which is generally considered a problem and further investigation is not warranted at this time.

**It is important to note that this does not constitute a release of liability for contamination remaining on site or contamination not detected. Should site conditions change, the Department may require further investigation and remedial action.**

If you have any questions, please call (909) 387-3082.

**SUSAN WILLIAMS, REHS  
Hazardous Materials Field Services**

SW/jc



CUPA

San Bernardino County Fire Department

HAZARDOUS MATERIALS DIVISION • FIELD SERVICES/ENVIRONMENTAL PROTECTION

385 N. Arrowhead Ave, 2nd Floor, San Bernardino, CA 92415-0153 • (909) 387-3080 FAX (909) 387-4323



HAZARDOUS WASTE GENERATOR AND HAZARDOUS MATERIALS HANDLER INSPECTION REPORT

Facility Name: COAST Grain Inc Date: 11-15-01
Street Address: 5355 E. Airport DRIVE Est. No: 87013578
City: ONTARIO Zip Code: 91761 EPA ID No: CAD981380165
Facility Contact: Leonard Martinez Phone No. (909) 390-9766 Number of Employees: 7

Refer to Title 19 and Title 22 of the California Code of Regulations (CCR), Chapter 6.5 of the Health and Safety Code (CHSC) and Division 3 of Title 2 of the San Bernardino County Code (CC). The following code sections are either in Violation (V) of, or in Compliance (C) with, the applicable laws and regulations, or compliance is not applicable, not addressed or unknown (N).

Table with columns for GENERAL REQUIREMENTS FOR GENERATORS, STORAGE AND LABELING REQUIREMENTS, HAZARDOUS WASTE RECORDS AND MANIFESTS, MANAGEMENT OF USED OIL AND BATTERIES, and DISPOSAL AND TRANSPORTATION. Includes a large handwritten INSPECTION NARRATIVE on the right side.

NOTICE OF VIOLATION: THE VIOLATIONS NOTED ABOVE MUST BE CORRECTED WITHIN 30 DAYS. FAILURE TO COMPLY MAY RESULT IN LEGAL ACTION. THE CERTIFICATE OF COMPLIANCE SHALL BE SUBMITTED WITHIN THE TIME PERIOD NOTED ABOVE.

Inspector: Kathleen M Brundage Received by: cert mail Title:



CUPA

San Bernardino County Fire Department

HAZARDOUS MATERIALS DIVISION • FIELD SERVICES/ENVIRONMENTAL PROTECTION

385 N. Arrowhead Ave., 2nd Floor, San Bernardino, CA 92415-0153 • (909) 387-3080 FAX (909) 387-4323



SUPPLEMENTAL INSPECTION REPORT

FACILITY NAME:

Coast Grain

FACILITY LOCATION:

5355 E. Airport Drive, Ont

Wastes generated from this location:

- 2- 55 gallon drums waste oil (in Fabrication)
- 1- 220 gallon aboveground tank - waste oil
- 2- 30 gallon drums - waste antifreeze
- 1- 55 gallon drum - oil soaked absorbent
- 1- 55 gallon drum - waste oil filters

Golden west is contracted for all hazardous waste hauling and disposal activities. Manifests were available at the time of the inspection.

Materials stored onsite include:

Fabrication Dept:

- 4- 55 gallon drum oil, lubricants, etc
- several 5 gallon containers oil
- 5- 30 gallon drums grease

Fats/Oil Division: (which has been shut down)

- 1- aboveground tank for diesel - currently empty, 5000 gallon

Vehicle Maintenance Division:

- 1- 220 gallon aboveground tank (AST) - oil
- 1- 55 gallon drum anti freeze
- 1- 55 " " transmission fluid
- 1- 55 " " absorbent - new
- parts washers / OX ACE WELDING UNITS
- 1- 55 gallon drum of unknown material/waste, was

Kathleen Brundage  
Inspector

Cert mail  
Received By

11-15-01  
Date

Title





### SUPPLEMENTAL INSPECTION REPORT

FACILITY NAME:

Coast Grain

FACILITY LOCATION:

5355 E. Airport., Ontario

Stored outside the south door in vehicle maintenance area.

2-55 gallon drums of cleaner containing potassium hydroxide  
 1-55 gallon drum of cleaner containing hydrofluoric acid

Paclease is contracted by Coast Grain for on site fleet servicing. Records for disposal are in Paclease name operating under Coast Grain permits.

Mission Uniforms Services rags and uniforms.

Stored to the north of the vehicle maintenance bay is the washdown area and molassas storage tanks. This area has a sump which collects wash water from the grain + molassas trucks. This wash down is collected and used as pig feed. Molassas is stored in 5 silo style aboveground storage tanks.

Around the facility are numerous empty 55 gallon drums. Located at the end of the RR spur were 3-55gallon drums propylene glycol + 1-55gallon blue poly drum containing an unknown substance

Kathleen Brundage  
 Inspector

cert mail  
 Received By

11-15-01  
 Date

\_\_\_\_\_  
 Title



### SUPPLEMENTAL INSPECTION REPORT

FACILITY NAME: <u>Coast Grain</u>	FACILITY LOCATION: <u>5355 Airport Dr., Ontario</u>
--------------------------------------	--

Facility has recently been purchased. At the time of the inspection, the new name, etc. had not been disclosed. Operations are to remain the same.

The following issues need to be addressed for compliance with hazardous material + hazardous waste regulation:

- ① Update Business Emergency Contingency Plan with new operators / name / emergency contacts; (# 203 on 1st pg of report)
- ② Hazardous waste storage containers must be properly labeled with hazardous waste labels. A sample label is included with this report; (# 110, 111, 112)
- ③ Hazardous waste storage areas must be inspected at least weekly to insure that container integrity is intact, that debris does not accumulate, and containers are properly labeled + accumulation time allowances are not exceeded; (# 118)
- ④ Aboveground storage tanks for hazardous waste must be inspected on a daily basis.

Implement an inspection program for #3 + 4. Sample inspection sheets are included with this report.

Kathleen Brundage  
 Inspector

11-15-01

Date

cert. mail  
 Received By

Title



### SUPPLEMENTAL INSPECTION REPORT

FACILITY NAME: <u>Coast Grain, Inc</u>	FACILITY LOCATION: <u>5355 Airport Dr., Ontario</u>
---	--

⑤ All misc. containers/55 gallon drums stored throughout the facility need to be identified & properly labeled. If these containers store a waste, these must be managed properly & hauled to an appropriate disposal facility.

If you have any questions regarding this report or compliance requirements, please contact this office at (909) 387-3080.

Kathleen Brundage  
 Inspector

11-15-01  
 Date

Cert mail  
 Received By

\_\_\_\_\_  
 Title

CUPA

San Bernardino County Fire Department • HAZARDOUS MATERIALS DIVISION  
 385 N. Arrowhead Ave., 2nd Floor, San Bernardino, CA 92415-0153 • (909) 387-4631 FAX (909) 387-4323

**HAZARDOUS MATERIALS INVENTORY FORM - Chemical Description**  MATERIAL  WASTE  
 One page per item. Indicate if material OR waste (Do not combine material and waste on one form) MAKE COPIES OF THIS FORM AS NEEDED.  
 ATTACH A MATERIAL SAFETY DATA SHEET (MSDS) IF THE MATERIAL IS NOT LISTED IN APPENDIX I OF THIS GUIDE.

**I. FACILITY INFORMATION**

ESTABLISHMENT # 87013578 (This number is on your CUPA permit.) ITEM NUMBER 12

FACILITY ID # 36001013578 FACILITY MAP # 203 GRID COORDINATE(S) B4 204

BUSINESS NAME Coast Grain Co

BUSINESS SITE ADDRESS 5355 E Airport Dr Ontario Ca 91761

**II. CHEMICAL INFORMATION**

CHEMICAL NAME Solvent 205 TRADE SECRET  NO 206 Do not disclose trade secrets here. Contact this Dept for trade secret filing instructions. If EPCRA, follow EPA procedures

COMMON NAME 207 EHS\*  YES  NO 208

CAS# 209 EHS = Extremely Hazardous Substance (Appdx B) \*If EHS is "YES", all amounts MUST be in pounds

HAZARDOUS MATERIAL TYPE (Check one item only)  a. PURE  b. MIXTURE  c. WASTE 211 RADIOACTIVE? Yes  No  CURIES 213

PHYSICAL STATE (Check one item only)  a. SOLID  b. LIQUID  c. GAS  d. DUST LARGEST CONTAINER SIZE 215

FED HAZARD CATEGORIES  a. FIRE  b. REACTIVE  c. PRESSURE RELEASE  d. ACUTE HEALTH  e. CHRONIC HEALTH 216

AVERAGE AMOUNT 40 217 MAXIMUM AMOUNT 40 218 ANNUAL WASTE AMOUNT 219 STATE WASTE CODE 220

UNITS\*  a. GALLONS  b. CUBIC FEET  c. POUNDS  d. TONS  E. OTHER: 221 DAYS ON SITE 365 222

STORAGE CONTAINER (Check all that apply)  a. ABOVEGROUND TANK  e. PLASTIC/NONMETALLIC DRUM  i. FIBER DRUM  m. GLASS BOTTLE  q. RAIL CAR 223  
 b. UNDERGROUND TANK  f. CAN  j. BAG  n. PLASTIC BOTTLE  r. OTHER Parts Washer  
 c. TANK INSIDE BUILDING  g. CARBOY  k. BOX  o. TOTE BIN  
 d. STEEL DRUM  h. SILO  l. CYLINDER  p. TANK WAGON

STORAGE PRESSURE  a. AMBIENT  b. ABOVE AMBIENT  c. BELOW AMBIENT 224

STORAGE TEMPERATURE  a. AMBIENT  b. ABOVE AMBIENT  c. BELOW AMBIENT  d. CRYOGENIC 225

%WT	COMPOSITION (LIST ALL COMPONENTS, HAZARDOUS FIRST)	EHS	CAS #
1. 226	<u>Perchloroethylene</u> 227	<input type="checkbox"/> YES <input type="checkbox"/> NO 228	<u>127 18-4</u> 229
2. 230	<u>Benzene</u> 231	<input type="checkbox"/> YES <input type="checkbox"/> NO 232	<u>71 43-2</u> 233
3. 234	<u>Trichloroethylene</u> 235	<input type="checkbox"/> YES <input type="checkbox"/> NO 236	<u>79 01-6</u> 237
4. 238	<u>Methylene Chloride</u> 239	<input type="checkbox"/> YES <input type="checkbox"/> NO 240	<u>75 09-2</u> 241
5. 242	<u>Dichloro Benzene</u> 243	<input type="checkbox"/> YES <input type="checkbox"/> NO 244	<u>106 46 7</u> 245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets

NOTES (Trade names/synonyms or other information relevant to the substances listed) 246

if EPCRA, Owner/Operator please sign here

Date: 12-11-01

1  
O *file*  
**COUNTY FIRE DEPARTMENT**



**COUNTY OF SAN BERNARDINO  
ECONOMIC DEVELOPMENT  
AND PUBLIC SERVICES GROUP**

**OFFICE OF THE FIRE MARSHAL  
HAZARDOUS MATERIALS DIVISION  
620 South "E" Street • San Bernardino, CA 92415-0153  
(909) 386-8401 • Fax (909) 386-8460**

**PETER R. HILLS  
Fire Chief  
County Fire Warden**

January 8, 2002

**COAST GRAIN INC  
5355 E AIRPORT DRIVE  
ONTARIO, CALIFORNIA 91761**

**ATTENTION: JOHN STELLINGWORTH**

**SUBJECT: REMOVAL OF ONE UNDERGROUND STORAGE TANK  
AT COAST GRAIN INC, LOCATED AT 5355 E. AIRPORT DRIVE,  
ONTARIO, CALIFORNIA**

The Department has reviewed the report submitted by Tank Specialists of California for the facility at the above address. The results of the soil sampling activity conducted on December 5, 2002 indicate that further investigation is not warranted at this time.

**It is important to note** that this cannot be construed as a release of liability for the site or declaration that the site is free from contamination. Should further projects or environmental investigations reveal additional contaminants on site, you will be responsible and held liable for the investigation and remedial actions.

If you have any questions, please call me at (909) 386-8419.

*Catherine B. Richards*

**CATHERINE B. RICHARDS, R.E.H.S.  
ENVIRONMENTAL HEALTH SPECIALIST II  
HAZARDOUS MATERIALS DIVISION  
SITE REMEDIATION/LOCAL OVERSIGHT PROGRAM**

CBR/ld

cc: Dave Hopper, Tank Specialists of California

**JOHN P. MICHAELSON  
County Administrative Officer  
JOHN GOSS  
Assistant County Administrator  
Economic Development and  
Public Services Group**

**Board of Supervisors**  
BILL PORTINIS ..... First District      DENNIS HANBERGER ..... Third District  
JON D. WICKLE ..... Second District      FRED AGUIAR ..... Fourth District  
JERRY SAVES ..... Fifth District

# Advanced GeoEnvironmental, Inc.



18 December 2002  
AGE Project No. SB 603G7.1024

Mr. Dave Hopper  
Tank Specialists of California  
12425 Mills Avenue, Suite A7  
Chino, California 91710-2084

**Subject: Soil Sampling Following the Removal of an Underground Storage Tank -  
Coast Grain Co., 5355 E. Airport Drive, Ontario, California**


Dear Mr. Hopper:

In accordance with your request, *Advanced* GeoEnvironmental, Inc. has collected soil samples following the removal of an underground storage tank system at the referenced address. The enclosed report describes the procedures and findings of this sampling program for review by the regulatory agency.

The opportunity to provide this service is greatly appreciated. If you have any questions regarding this matter, please feel free to call our office at (714) 996-5151.

Sincerely,

***Advanced* GeoEnvironmental, Inc.**

  
Robert D. Loeffler  
Project Geologist  
California Registered Geologist No. 6709



Enclosures

cc: (4) addressee

**Soil Sampling Following the Removal of an Underground Storage Tank**  
**Coast Grain Co.**  
**5355 E. Airport Drive, Ontario, California**

**1.0. INTRODUCTION**

*Advanced* GeoEnvironmental, Inc. (AGE) was retained by Tank Specialists of California (TSC) to collect and analyze soil samples following the removal of a 12,000-gallon diesel fuel underground storage tank (UST) and associated piping and dispenser at the above referenced address. The site is located in an industrial area of low to moderate topographic relief at an estimated elevation of 980-feet above mean sea level (Figure 1 - *Location Map*, 7.5 Guasti Quadrangle, USGS Topographic Series, photorevised, 1981).

**1.1. UNDERGROUND STORAGE TANK**

The UST was north of the main office building and was used for the storage of diesel fuel. The UST was a 12,000-gallon double-walled steel and fiberglass tank. A dispenser was 5 feet northwest of the UST. The location of the UST and the immediately surrounding features are depicted on Figure 2 - *Site Plan*.

**1.2. HYDROGEOLOGY INFORMATION**

According to a report titled *Chino Basin, Optimum Basin Management Program – Initial State of the Basin Report (draft)*, released by the Chino Basin Watermaster in January 2002, the depth to ground water in the vicinity of the site is estimated to be 305-feet below surface grade (bsg). Ground water is inferred to flow in a southwesterly direction. Ground water was not encountered during tank removal activities.

**2.0. SAMPLING AND ANALYTICAL PROCEDURES**

The UST was removed by TSC on 05 December 2002. Prior to removal, the UST was triple-rinsed by Able Environmental and the rinseate was subsequently transported to an appropriate recycling facility. Following the removal, the UST was transported to an appropriate recycling facility. TSC will attach the rinseate manifest and tank destruction certificate. The UST removal was witnessed by Ms. Catherine Richards of the San Bernardino County Fire Department – Hazardous Materials Division (SBCFD-HMD).

Soil sampling was conducted by Mr. Robert Loeffler, California Registered Geologist No. 6709. Three soil samples were collected from depths of 2 to 3 feet below the removed UST, utilizing either a hand auger or the backhoe bucket (samples T-1 through

T-3; Figure 2). A total of four soil samples were collected from two spoils piles from depths of 1 foot below the surface utilizing a shovel (samples SP1 through SP4; Figure 2). Due to undermining, the soil underlying the former fuel dispenser location collapsed into the excavation and therefore was not sampled. The soil sample locations are depicted on Figure 2.

Each soil sample was compacted into a glass jar, which was completely filled to eliminate headspace prior to sealing with a Teflon-lined threaded cap. The samples were labeled and placed in a chilled container. The soil sampling procedures were witnessed by Ms. Richards of the SBCFD-HMD.

The samples were transported under chain-of-custody to Cal-Tech Environmental Laboratories (CTEL), a state-certified laboratory. All samples were analyzed for total petroleum hydrocarbons as diesel fuel (TPH-d) and purgeable aromatic compounds (benzene, toluene, ethylbenzene and xylenes: BTE&X) with methyl tertiary butyl ether (MTBE) in accordance with EPA methods 8015-modified for diesel fuel and 8021B.

### 3.0. FINDINGS

Slight hydrocarbon odors were noted in samples SP3 and SP4. No odors or soil discoloration were noted in the remaining samples.

TPH-d was detected in samples SP3 and SP4 at 800 mg/kg and 230 mg/kg, respectively. Trace concentrations of benzene and MTBE were detected in sample SP3 at 0.025 mg/kg and 0.018 mg/kg, respectively. TPH-d, BTE&X and MTBE were not detected in the remaining samples.

The analytical results are summarized in Table 1. The analytical report (CTEL Project No. CT178-0212034) and chain-of-custody forms are attached.

### 4.0. CONCLUSIONS AND RECOMMENDATIONS

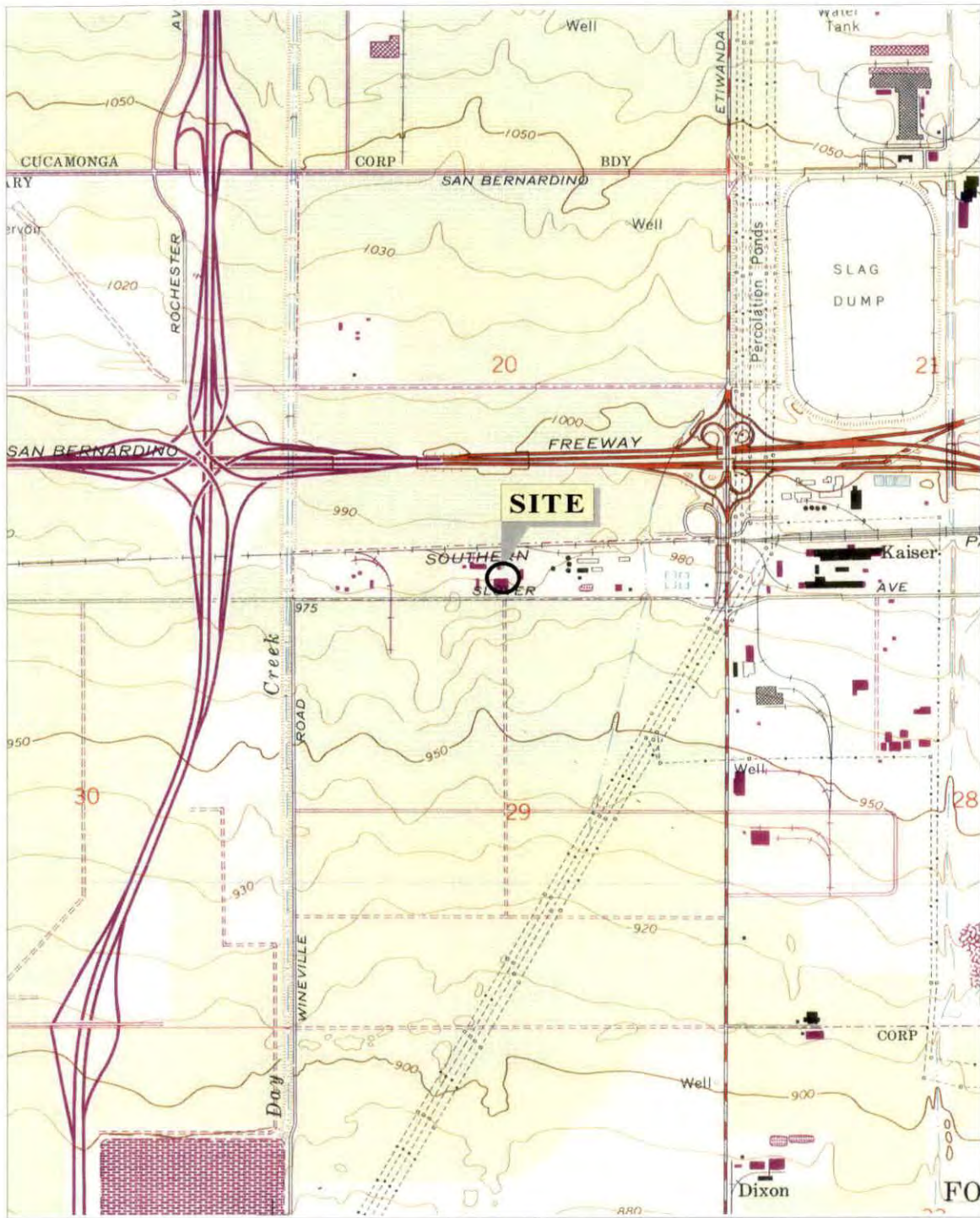
Field observations and analytical results indicate that a minor release of hydrocarbons was detected in one spoils pile that is represented by samples SP3 and SP4. Hydrocarbons were not detected under the former UST. It is our understanding that the spoils piles were used as backfill. Only trace concentrations of benzene and MTBE were detected in the one spoils pile sample and the TPH-d concentrations were generally low (< 1,000 mg/kg). Based on the concentrations detected and the depth to ground water



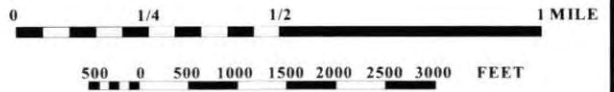
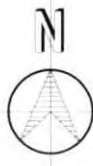
(approximately 305 feet bsg), AGE recommends that the SBCFD-HMD consider granting closure for this site.

#### **5.0. LIMITATIONS**

Our professional services were performed using that degree of care and skill ordinarily exercised by environmental consultants practicing in this or similar localities. The findings were mainly based upon analytical results provided by independent laboratories. Interpretations of the subsurface conditions at the site for the purpose of this investigation are made from a limited number of available data points (i.e. soil samples) and subsurface conditions may vary away from these data points. Based on the fact that AGE did not witness the soil sampling of the remote fill port, AGE does not warranty any soil sampling in this area. No other warranty, expressed or implied, is made as to the professional recommendations contained in this report.



Reference:  
 7.5 - Minute Guasti Quadrangle  
 USGS Topographic Series, Photorevised 1981



*Advanced*  
 GeoEnvironmental, Inc.



**FIGURE 1 - LOCATION MAP**

Coast Grain Co.  
 5355 E. Airport Drive  
 Ontario, California

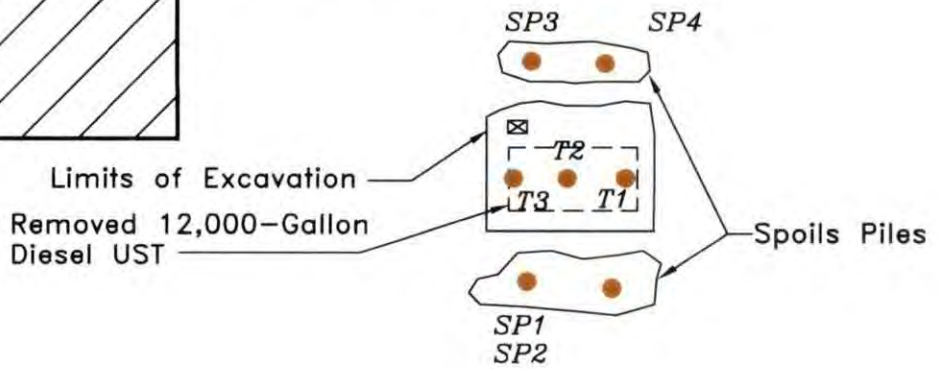
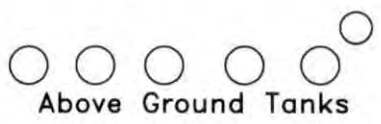
Project No.:  
 SB 603G7.1024

Date:  
 18 December 2002

**LEGEND**

- ☒ Former Dispenser
- T2 Sample Location
- Sample Location

0 40 80  
SCALE IN FEET



Advanced  
GeoEnvironmental, Inc.

**FIGURE 2 - SITE PLAN**

**Coast Grain Co.**  
5355 E. Airport Drive  
Ontario, California

Project No.:  
**SB 603G7.1024**

Date:  
**18 December 2002**

**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**

Coast Grain Co.  
05 December 2002

Sample ID	TPH-d (8015m) mg/kg	Purgeable Aromatic Hydrocarbons with MTBE (8021B) mg/kg				
		Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
T-1	ND	ND	ND	ND	ND	ND
T-2	ND	ND	ND	ND	ND	ND
T-3	ND	ND	ND	ND	ND	ND
SP1	ND	ND	ND	ND	ND	ND
SP2	ND	ND	ND	ND	ND	ND
SP3	800	0.025	ND	ND	ND	0.018
SP4	230	ND	ND	ND	ND	ND

# CAL TECH Environmental Laboratories



6814 Rosecrans Avenue. Paramount, CA 90723-3146  
 Telephone: (562) 272-2700 Fax: (562) 272-2789

## ANALYTICAL RESULTS\*

**CTEL Project No:** CT178-0212034  
**Client Name:** Advanced Geo Environmental, Inc.  
 3315 E. Miraloma Ave., Suite 117  
 Anaheim, CA 92806

**Phone:** (714) 996-5151  
**Fax:** (714) 996-5182

**Attention:** MR. Robert Loeffler

**Project ID:**  
**Project Name:** Coast Grain, Ontario, CA

**Date Sampled:** 12/05/02 @ 09:00 am  
**Date Received:** 12/06/02 @ 09:40 am  
**Date Analyzed:** 12/09/02

**Matrix:** Soil

Laboratory ID	0212-034-1	0212-034-2	0212-034-3	Method	Units:	Detection Limit
Client Sample ID:	SP1	SP2	SP3			
Dilution	1	1	1			
MTBE	ND	ND	0.018	SW846 8021	mg/Kg	0.005
Benzene	ND	ND	0.025	SW846 8021	mg/Kg	0.005
Toluene	ND	ND	ND	SW846 8021	mg/Kg	0.005
Ethylbenzene	ND	ND	ND	SW846 8021	mg/Kg	0.005
Total Xylene	ND	ND	ND	SW846 8021	mg/Kg	0.01
TPH - Diesel	ND	ND	800	EPA 8015M	mg/Kg	10

ND = Not Detected at the indicated Detection Limit

Client Project No.  
Client Name:

CT178-0212034  
Advanced Geo Environmental, Inc.  
3315 E. Miraloma Ave., Suite 117  
Anaheim, CA 92806

Phone: (714) 996-5151  
Fax: (714) 996-5182

Attention:

MR. Robert Loeffler

Project ID:  
Project Name:

Coast Grain, Ontario, CA

Date Sampled:  
Date Received:  
Date Analyzed:

12/05/02 @ 09:00 am  
12/06/02 @ 09:40 am  
12/09/02

Matrix: Soil

Laboratory ID:  
Client Sample ID:

0212-034-4  
SP4

0212-034-5  
T-1

0212-034-6  
T-2

Method

Units:

Detection  
Limit

Dilution

1

1

1

MTBE	ND	ND	ND	SW846 8021	mg/Kg	0.005
Benzene	ND	ND	ND	SW846 8021	mg/Kg	0.005
Toluene	ND	ND	ND	SW846 8021	mg/Kg	0.005
Ethylbenzene	ND	ND	ND	SW846 8021	mg/Kg	0.005
Total Xylene	ND	ND	ND	SW846 8021	mg/Kg	0.01

TPH - Diesel	230	ND	ND	EPA 8015M	mg/Kg	10
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ND = Not Detected at the indicated Detection Limit

**Client Project No:** CT178-0212034  
**Client Name:** Advanced Geo Environmental, Inc.  
 3315 E. Miraloma Ave., Suite 117  
 Anaheim, CA 92806  
**Attention:** MR. Robert Loeffler

**Phone:** (714) 996-5151  
**Fax:** (714) 996-5182

**Project ID:**  
**Project Name:** Coast Grain, Ontario, CA

**Date Sampled:** 12/05/02 @ 09:07 am  
**Date Received:** 12/06/02 @ 09:40 am  
**Date Analyzed:** 12/09/02

**Matrix:** Soil

**Laboratory ID:** 0212-034-7  
**Client Sample ID:** T-3  
**Dilution:** 1

**Method**                      **Units:**                      **Detection Limit**

MTBE	ND	SW846 8021	mg/Kg	0.005
Benzene	ND	SW846 8021	mg/Kg	0.005
Toluene	ND	SW846 8021	mg/Kg	0.005
Ethylbenzene	ND	SW846 8021	mg/Kg	0.005
Total Xylene	ND	SW846 8021	mg/Kg	0.01

TPH - Diesel	ND	EPA 8015M	mg/Kg	10
--------------	----	-----------	-------	----

ND = Not Detected at the indicated Detection Limit

  
 Greg Tejririan  
 Laboratory Director

\*The results are base upon the sample received.

**Cal Tech Environmental Laboratories, Inc. ELAP ID #: 2424**

# CAL TECH Environmental Laboratories



6814 Rosecrans Avenue, Paramount, CA 90723-3146  
 Telephone: (562) 272-2700 Fax: (562) 272-2789

Lab Job No. 12-034 Page 1 of 1

## Chain of Custody Record

Client: Advanced GeoEnvironmental, Inc.  
 Contact: ROBERT LOEFFLER  
 Address: 3315 East Miraloma Avenue #117  
Anaheim, CA 92806  
 Project: COAST GRAIN, ONTARIO, CA  
 Sampled By: ROBERT LOEFFLER /   
 Name/Signature

Phone: (714) 996-5157  
 Fax: (714) 996-5182

Turn Around Time \_\_\_\_\_  
 Rush \_\_\_\_\_  
 Normal X

BILLING: TANK SPECIALISTS OF CALIFORNIA

Lab ID Number	Field ID	Date/Time Sampled	Bottle Type	No.	Preserv.	Matrix	Analyses Requested										Comments			
							8015m-DIGEST	8021B w/ATRE												
1	SP1	12/5/02	GLASS	1		SOIL	X	X												
2	SP2	12/5/02	GLASS	1		SOIL	X	X												
3	SP3	12/5/02	GLASS	1		SOIL	X	X												
4	SP4	12/5/02	GLASS	1		SOIL	X	X												
5	T-1	12/5/02	GLASS	1		SOIL	X	X												
6	T-2	12/5/02	GLASS	1		SOIL	X	X												
7	T-3	12/5/02	GLASS	1		SOIL	X	X												
	<del>SP</del>																			

Relinquished:

Dispatched: \_\_\_\_\_

Date / Time: 12/6/02 / 9:40AM Received: \_\_\_\_\_  
 Date / Time: \_\_\_\_\_ Carrier: \_\_\_\_\_

I hereby authorize the performance of the above indicated tests.

Date / Time: 12-6-02 / 9:40am Received by lab: R. Loeffler



FACILITY INSPECTION

INSPECTION DATE: June 12, 1997      TIME: 8:00 A.M.

INSPECTOR: AES 

FACILITY NAME: Coast Grain Company (brine pond)

TELEPHONE NO.: (909) 390-9766      FAX (909) 390-1081

FACILITY LOCATION: 5355 Airport Drive  
(mail - P.O. Box 3610)  
Ontario, CA 91761

FACILITY REPRESENTATIVES: Leonard Martinez, Barry Koca

WEATHER CONDITIONS: Overcast

PURPOSE OF INSPECTION: To evaluate an existing brine disposal pond and characterize the industrial discharge from this facility.

OBSERVATIONS:

Site Operation

This is an industrial facility that supplies cattle and swine feed to local ranch owners. Prior to sale as feed, various grains are treated on site with steam, to remove weed seed and enhance starch conversion. The facility utilizes the City of Ontario water supply, which is routed through an onsite water softener (Bruner unit) to two boilers. The boilers are used to produce the steam, and the boiler blowdown (brine) is discharged to 2 concrete sumps for temporary storage. When the sumps are full, the brine is pumped into an underground pipe, which discharges to an unlined evaporation pond approximately 100 feet long by 25 feet wide.

I observed the operation of the boilers and appurtenances, including the water softener, water storage units, pipes, sumps, pump, and evaporation pond (see sketch and photographs).

Boiler Room

The water softener and storage tanks appear to be very old, with no evidence of cleaning or maintenance. Site representatives stated that the water softener was rebuilt during the past year by Quest Company. No one is under contract to routinely regenerate the water softener; site crew periodically adds bags of salt to the unit. I noted that bags of salt are stored on a pallet next to the water softener in the boiler room. The boilers were operating during the inspection, and blowdown was discharged to a drain opening in the floor of the building. There was also a puddle of yellow, cloudy liquid adjacent to the air tank (air comes from a compressor). Mr. Koca suggested the puddle could be condensation formed as a result of the warm temperature in the boiler room and the cool air in the tank. He also suggested that the yellow material could be mold. I did not collect a sample from the puddle.

Sumps and Pump

I observed 2 sump locations outside, north of the boiler room. The sumps were covered with metal panels. Site representatives indicated that the sumps are made of concrete, and boiler blowdown liquid drains by gravity through a pipe from the southern sump to the northern sump. An automatic switch, triggered by a float, activates a pump which routes the brine from the northern sump, through a pipe and into the brine pond. The pump was leaking profusely onto native soil adjacent to the northern sump.

Brine Pond

The boiler blowdown discharges to a brine pond at the north end of the facility, just south of the railroad embankment. There is no liner under the pond. I collected three samples from the pond, and submitted them to the lab, under standard chain of custody procedures, for evaluation of priority pollutant metals (+aluminum), standard mineral analysis, and total petroleum hydrocarbon determination.

Mr. Martinez estimates that the pond has been used since 1969. However, Coast Grain Co. recently obtained approval from the railroad to construct an additional railroad line over the existing brine pond. Mr. Martinez has agreed that, prior to any grading or soil removal in the pond area, Coast Grain Co. will submit a workplan to our staff for evaluation of soils under the pond, and also to obtain background soil data from borings outside of the influence of the pond.

FOLLOW-UP:

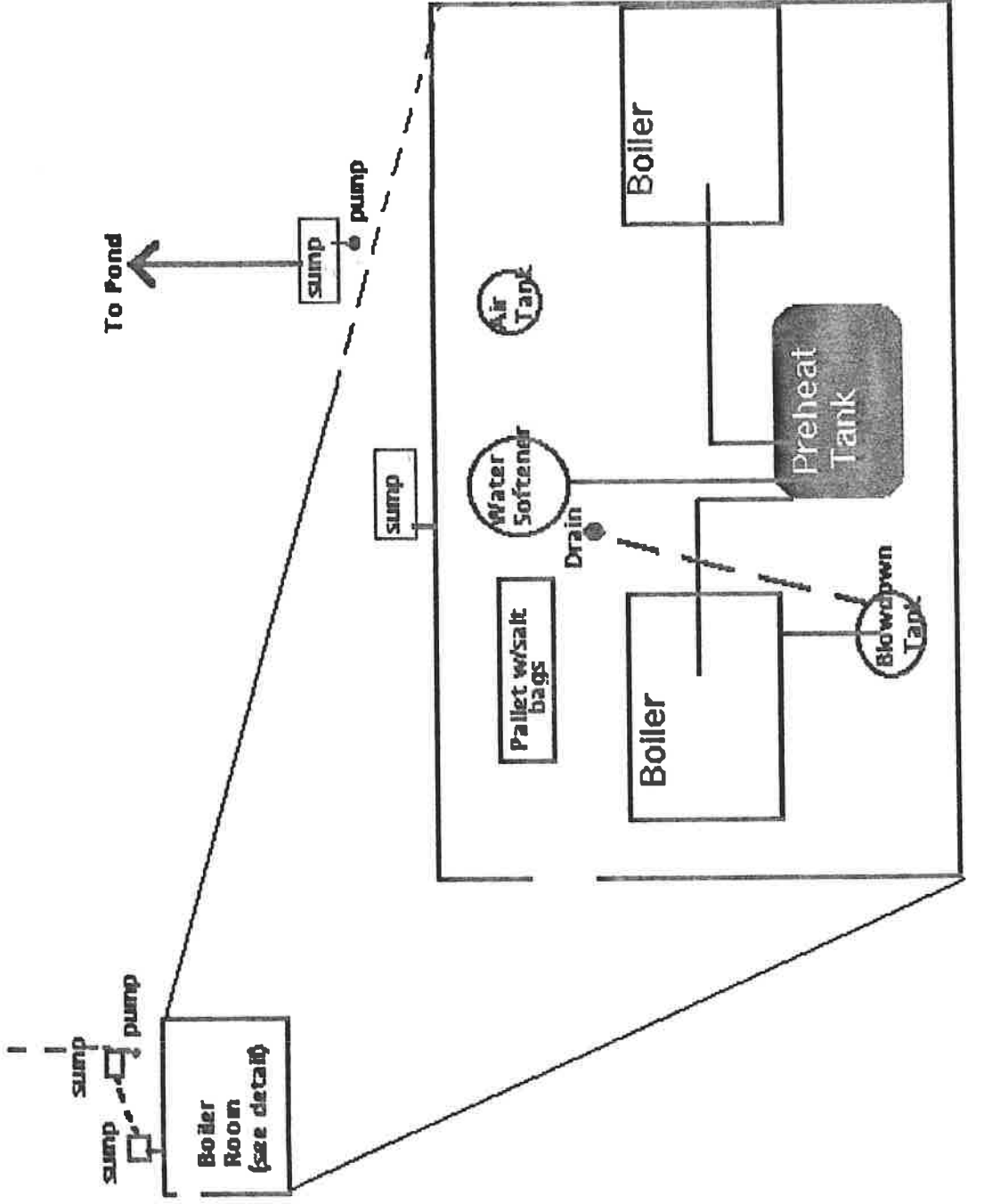
I called Mr. R. Harrell, field representative for Cherokee Chemical Co., to discuss chemical data from his periodic analysis of boiler discharge water at the facility. I ascertained from that conversation that discharge from the water softener likely flows into the blowdown sump and drain system and then into the brine pond. It would appear that the actual discharge to the pond has not been previously analyzed.

Mr. Koca called to advise me that their consultant, RMA Group - Rancho Cucamonga, is accepting the soil characterization project. Mr. Koca agreed that, pending the analytical results for the samples I collected from the pond, RMA would propose 3 sampling points and the appropriate laboratory analyses for the soil samples. I told Mr. Koca that I understood the pond characterization and closure is their highest priority, because of the planned railroad project. However, a second phase of evaluation will be necessary for the sump and pump areas adjacent to the boiler room. He agreed to authorize the evaluation of all such areas.

I offered to discuss the brine discharge options for Coast Grain Co. with Mark Adelson of our Surveillance Section, because Mr. Martinez may wish to route the plant's discharge to the SARI line. I also explained to Mr. Koca that Coast Grain Co. must make provisions for management and disposal of the brine waste during the characterization and closure of the pond.

Existing Railroad Tracks

Brine Pond





**GEOTECHNICAL CONSULTANTS**

**GENERAL EARTHWORK  
AND  
GRADING SPECIFICATIONS**

**GEOTECHNICAL CONSULTANTS**

Coast Grain Company  
Ontario, CA  
March 10, 1998

**GENERAL EARTHWORK  
AND  
GRADING SPECIFICATIONS**

**1.00 GENERAL DESCRIPTION**

**1.01 Introduction**

These specifications present our general recommendations for earthwork and grading as shown on the approved grading plans for the subject project. These specifications shall cover all clearing and grubbing, removal of existing structures, preparation of land to be filled, filling of the land, spreading, compaction and control of the fill, and all subsidiary work necessary to complete the grading of the filled areas to conform with the lines, grades and slopes as shown on the approved plans.

**1.02 Laboratory Standard**

The laboratory standard used to establish the maximum density and optimum moisture shall be ASTM D1557. Method D shall be used if the amount of material passing the 3/4 inch size exceeds 10% by weight; otherwise, method C shall be used.

The sand cone method, ASTM D1556 or other test method as considered appropriate by the geotechnical consultant shall determine the in-situ density of earth materials (field compaction tests).

Relative compaction is defined, for purposes of these specifications, as the ratio of the in-place density to the maximum density as determined in the previously mentioned laboratory standard.

**2.00 CLEARING**

**2.01 Surface Clearing**

All structures marked for removal, timber, logs, trees, brush and other rubbish shall be removed and disposed of off the site. Any trees to be removed shall be pulled in such a manner so as to remove as much of the root system as possible.

All unsuitable materials, such as diesel contaminated soils, shall be disposed of properly.

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Coast Grain Company  
Ontario, C.A  
March 10, 1998

**2.02 Sub-Surface Removals**

A thorough search should be made for possible underground storage tanks and/or septic tanks and cesspools. If found, tanks should be removed and cesspools pumped dry.

Any concrete irrigation lines shall be crushed in place and all metal underground lines shall be removed from the site.

**2.03 Backfill of Cavities**

All cavities created or exposed during clearing and grubbing operations or by previous use of the site shall be cleared of deleterious material and backfilled with native soils or other materials approved by the soil engineer. Said backfill shall be compacted to a minimum of 90% relative compaction.

**3.00 ORIGINAL GROUND PREPARATION****3.01 Stripping of Vegetation**

After the site has been properly cleared, all vegetation and topsoil containing the root systems of former vegetation shall be stripped from areas to be graded. Materials removed in this stripping process may be used as fill in areas designated by the soil engineer, provided the vegetation is mixed with a sufficient amount of soil to assure that no appreciable settlement or other detriment will occur due to decaying of the organic matter. Soil materials containing more than 3% organic shall not be used as structural fill

**3.02 Removals of Non-Engineered Fills**

Any non-engineered fills encountered during grading shall be completely removed and the underlying ground shall be prepared in accordance to the recommendations for original ground preparation contained in this section. After cleansing of any organic matter, the fill material may be used for engineered fill.

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Ontario, CA  
March 10, 1998

**3.03 Overexcavation of Fill Areas**

The existing ground in all areas determined to be satisfactory for the support of fills shall be scarified to a minimum depth of 6 inches. Scarification shall continue until the soils are broken down and free from lumps or clods and until the scarified zone is uniform. The moisture content of the scarified zone shall be adjusted to within 2% of optimum moisture. The scarified zone shall then be uniformly compacted to 90% relative compaction.

Where fill material is to be placed on ground with slopes steeper than 5 (horizontal) to 1 (vertical) the sloping ground shall be benched. The lowermost bench shall be a minimum of 15 feet wide, shall be a minimum of 2 feet deep, and shall expose firm material as determined by the geotechnical consultant. Other benches shall be excavated to firm material as determined by the geotechnical consultant and shall have a minimum width of 4 feet.

Existing ground that is determined to be unsatisfactory for the support of fills shall be overexcavated in accordance to the recommendations contained in the geotechnical report of which these general specifications are a part.

**4.00 FILL MATERIALS****4.01 General**

Materials for the fill shall be free from vegetable matter and other deleterious substances, shall not contain rocks or lumps of a greater dimension than is recommended by the geotechnical consultant, and shall be approved by the geotechnical consultant. Soils of poor gradation, expansion, or strength properties shall be placed in areas designated by the geotechnical consultant or shall be mixed with other soils providing satisfactory fill material.

**4.02 Oversize Material**

Oversize material, rock or other irreducible material with a maximum dimension greater than 12 inches, shall not be placed in fills, unless the geotechnical consultant specifically approves the location, materials, and disposal methods. Oversize material shall be placed in such a manner that nesting of oversize material does not occur and in such a manner that the oversize material is completely surrounded by fill material compacted to a minimum of 90% relative compaction. Oversize material shall not be placed within 10 feet of finished grade without the approval of the geotechnical consultant.

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Coast Grain Company  
Ontario, CA  
March 10, 1998

**4.03 Import**

Material imported to the site shall conform to the requirements of section 4.01 of these specifications. Potential import material shall be approved by the geotechnical consultant prior to importation to the subject site.

**5.00 PLACING AND SPREADING OF FILL****5.01 Fill Lifts**

The selected fill material shall be placed in nearly horizontal layers which when compacted will not exceed approximately 6 inches in thickness. Thicker lifts may be placed if testing indicates the compaction procedures are such that the required compaction is being achieved and the geotechnical consultant approves their use.

Each layer shall be spread evenly and shall be thoroughly blade mixed during the spreading to insure uniformity of material in each layer.

**5.02 Fill Moisture**

When the moisture content of the fill material is below that recommended by the soils engineer, water shall then be added until the moisture content is as specified to assure thorough bonding during the compacting process. When the moisture content of the fill material is above that recommended by the soils engineer, the fill material shall be aerated by blading or other satisfactory methods until the moisture content is as specified.

**5.03 Fill Compaction**

After each layer has been placed, mixed, and spread evenly, it shall be thoroughly compacted to not less than 90% relative compaction. Compaction shall be by sheepsfoot rollers, multiple-wheel pneumatic tired rollers, or other types approved by the soil engineer.

Rolling shall be accomplished while the fill material is at the specified moisture content. Rolling of each layer shall be continuous over its entire area and the roller shall make sufficient trips to insure that the desired density has been obtained.



**GEOTECHNICAL CONSULTANTS**

Coast Grain Company  
Ontario, CA  
March 10, 1998

**5.04 Fill Slopes**

Fill slopes shall be compacted by means of sheepsfoot rollers or other suitable equipment. Compacting of the slopes may be done progressively in increments of 3 to 4 feet in fill height. At the completion of grading, the slope face shall be compacted to a minimum of 90% relative compaction. This may require track rolling or rolling with a grid roller attached to a tractor mounted side-boom.

Slopes may be over filled and cut back in such a manner that the exposed slope faces are compacted to a minimum of 90% relative compaction.

The fill operation shall be continued in six inch (6") compacted layers, or as specified above, until the fill has been brought to the finished slopes and grades as shown on the accepted plans.

**5.05 Compaction Testing**

Field density tests of the compaction of each layer of fill shall be made by the geotechnical consultant. Density tests shall be made at locations selected by the geotechnical consultant.

Frequency of field density tests shall be not less than one test for each 2.0 feet of fill height and at least every one thousand cubic yards of fill. Where fill slopes exceed four feet in height, their finished faces shall be tested at a frequency of one test for each 1000 square feet of slope face.

Where sheepsfoot rollers are used, the soil may be disturbed to a depth of several inches. Density reading shall be taken in the compacted material below the disturbed surface. When these readings indicate that the density of any layer of fill or portion thereof is below the required density, the particular layer or portion shall be reworked until the required density has been obtained.

**6.00 EXCAVATIONS****6.01 General**

The geotechnical consultant shall examine excavations and cut slopes. If determined necessary by the geotechnical consultant, further excavation or overexcavation and refilling of overexcavated areas shall be performed, and/or remedial grading of cut slopes shall be performed.

**GEOTECHNICAL CONSULTANTS**

Coast Grain Company  
Ontario, CA  
March 10, 1998

**6.02 Fill-Over-Cut Slopes**

Where fill-over-cut slopes are to be graded, the cut portion of the slope shall be made and approved by the geotechnical consultant prior to placement of materials for construction of the fill portion of the slope.

**7.00 TRENCH BACKFILL****7.01 General**

Trench backfill within street right of ways shall be compacted to 90% relative compaction as determined by the ASTM D1557 test method. Backfill may be jetted as a means of initial compaction, however, mechanical compaction will be required to obtain the required percentage of relative compaction. If trenches are jetted, there must be a suitable delay for drainage of excess water before mechanical compaction is applied.

**8.00 SEASONAL LIMITS****8.01 General**

No fill material shall be placed, spread or rolled while it is frozen or thawing or during unfavorable weather conditions. When the work is interrupted by heavy rain, fill operations shall not be resumed until field tests by the soils engineer indicate that the moisture content and density of the fill are as previously specified.

**9.00 SUPERVISION****9.01 Prior to Grading**

The site shall be observed by the geotechnical consultant upon completion of clearing and grubbing, prior to the preparation of any original ground for preparation of fill.

The supervisor of the grading contractor and the field representative of the geotechnical consultant shall have a meeting and discuss the geotechnical aspects of the earthwork prior to commencement of grading.



**GEOTECHNICAL CONSULTANTS**

Coast Grain Company  
Ontario, CA  
March 10, 1998

**9.02 During Grading**

Site preparation of all areas to receive fill shall be tested and approved by the geotechnical consultant prior to the placement of any fill.

The geotechnical consultant or his representative shall observe the fill and compaction operations so that he can provide an opinion regarding the conformance of the work to the recommendations contained in this report.

COAST GRAIN COMPANY  
 P.O. Box 51469  
 5355 East Airport Dr.  
 Ontario, CA 91761-8604

# PLOT PLAN

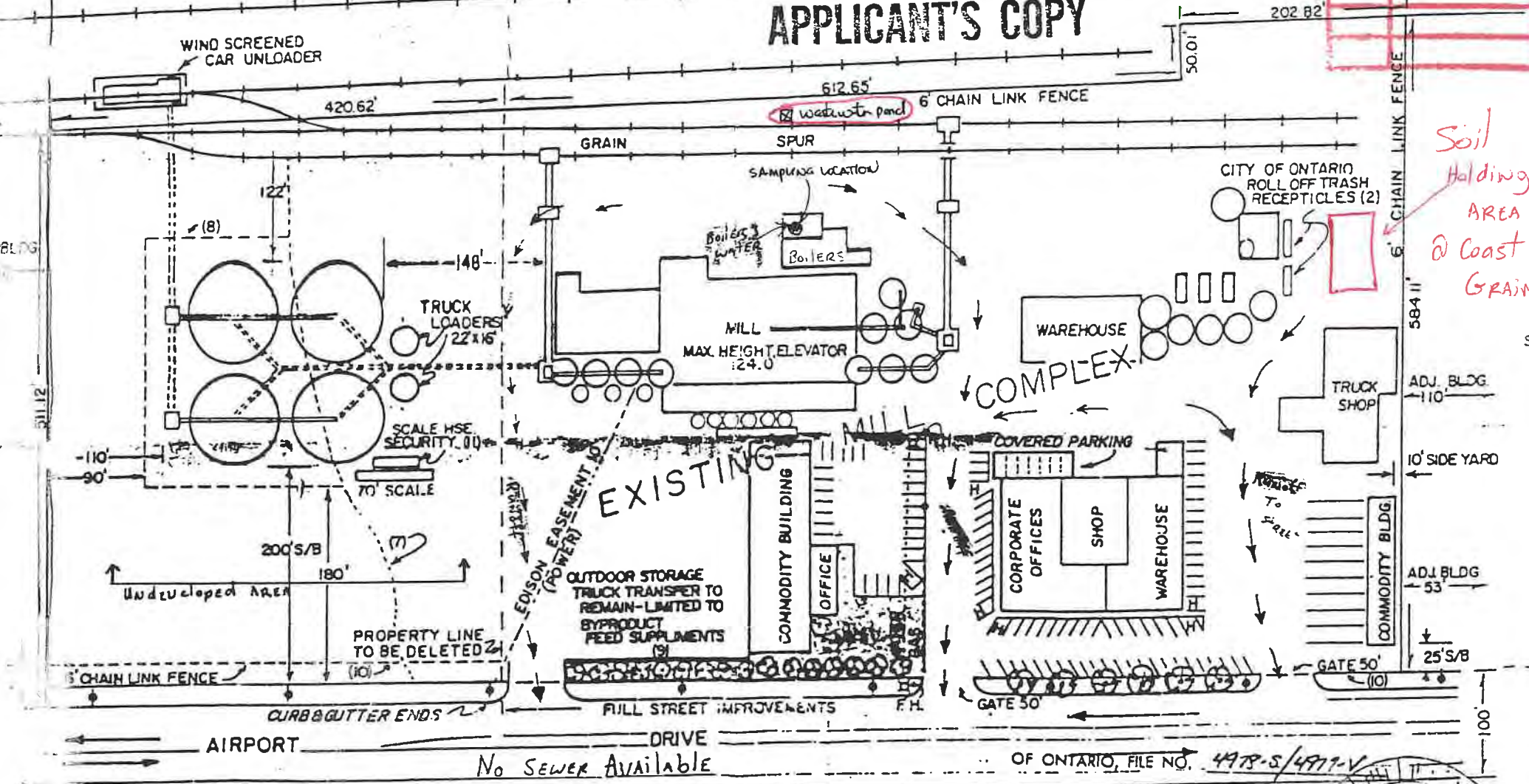
APPROVAL OF PLANS FOR INDUSTRIAL WASTEWATER DISCHARGE  
 Sanitation Dist. No. 21 Charles W. Carry, Chief Engr. & Gen'l. Mgr.  
 Date 10-30-97 Sanit. Dist. Ind. Wste. Permit No. 14609  
 Approval is contingent upon continuing compliance with all applicable Ordinance requirements and with  
 Corrections shown in red on the drawings   
 Sanit. Dist. Letter of this date 10-30-97   
 File No. 21-00.05 00/97-14609  
 Reviewed by A-J Checked by MPV  
 Approved by [Signature]  
 For Charles W. Carry, Chief Engr. & Gen'l. Mgr.  
 Permit for sewer connection must be obtained separately

SANTA ANA REGION	
REC'D	DATE
	MAR 12 1998
DBL	3/13
AES	

← Unicorn Parcel →  
 West Boundary

SOUTHERN PACIFIC RAIL ROAD MAIN LINE

APPLICANT'S COPY



OF ONTARIO, FILE NO. 4978-S/4979-V



## COAST GRAIN COMPANY

Post Office Box 51469, Ontario, CA 91761-8604  
(909) 390-9766 FAX (909) 390-9779

Santa Ann RWQCB  
Ms. Ann Sturdivant  
3737 Main St.  
Riverside, CA 92501

August 13, 1998

Dear Ms. Sturdivant:

Listed below for your approval are the issues we discussed to satisfy the Water Quality Board and the Union Pacific Railroad regarding the "Brine Pond" clean up site.

1. As in the 2/25/98 Addendum, the upper 2 feet of the Brine Pond will be removed and placed on a concrete or lined surface and be covered until removed from the property. The protocol in testing this pile for Saturation Extract Conductivity will be one (1) representative sample per 60 cubic yards and sampled by RMA's employee. This soil will be moved to the proper landfill site based on the test results. The Brine Pond area will be staked prior to soil excavation to maintain area control and potential contamination of other local soil. RMA Group will visually monitor the site remediation and make notes on a daily basis.
2. Approved 40 mil HDPE liner will be installed at the bottom of this area at a width of 160 feet on an east/west basis and 60 feet on a north/south basis. The bottom area size allows us to excavate down to the proper depth with sloping side walls and edges to prevent a cave in during the liner installation. The liner installation will meet your quality assurance/quality control measures as approved in our last submittal to you.
3. Clean soil will be brought back to fill over the liner and compacted back up to finished grade at 90% compaction or greater according to Union Pacific Railroad standards.
4. Soil removed from the pond site will be stored on an 8 mil liner. Estimates are 7500 yards of soil to be removed. The testing protocol for this pile will be one representative sample per 500 yards of removed soil. The sampling to be completed by RMA Group and tested for Sat. Ext. as required. Soil test results will determine tis end use (Does not include the top two feet of brine pond soil).
5. A letter from the UPSP Railroads Environmental Dept. is enclosed stating their approval and understanding of the Brine Pond remediation site.
6. I will send you an updated status of the "Brine Water Pump Site" as to the minor changes we have made during the tank retaining area construction.

Please contact me with questions or concerns regarding this information. I look forward to completing this project by Septmeber 1, 1998. Thanks for your help.

Best Regards,

Barry Koca

898brine

SANTA ANA REGION	
REC'D	DATE
	AUG 19 1998
DBL	8/20
AES	

UNION PACIFIC RAILROAD COMPANY

K. R. (KEN) WELCH  
Assistant Vice President  
Environmental Management



G. (GLENN) THOMAS  
Director-Environmental Operations South  
S. W. (STEVE) BERKI  
Director-Environmental Operations-Central  
L. A. (LANNY) SCHMID  
Director-Environmental Operations-West  
B. A. (BROCK) NELSON  
Director-Environmental Operations-North  
R. L. (RICK) EADES  
Director-Environmental Site Remediation

Mailing Address:  
Room 930  
1416 Dodge Street  
Omaha, Nebraska 68179  
Fax No. (402) 271-4461

File: Lease #  
MP\_\_\_\_, \_\_\_\_\_Sub  
Coast Grain Company

August 11, 1998



Ann Sturdivant  
Santa Ana Regional Water Quality Board  
3737 Main Street  
Suite 500 Riverside, CA 92501-3339

Dear Ms. Sturdivant:

Refer to the Brine Pond closure proposal for the site at Coast Grain Company, 5355 East Airport Drive, City of Ontario, CA. Union Pacific Railroad Company is agreeable to Coast Grain Company's proposal to perform partial remediation and on-site closure of the pond.

Union Pacific understands that Coast Grain will excavate and remove from the site all contaminated soils to a depth no less than 12.5 feet at bottom of the tie and center of track in an area 60 feet wide by 160 feet long. Coast Grain shall grade the excavation such that with the inclusion of a 40 mil HDPE liner, or better, all rainwater will be intercepted by the liner and shed away from the remaining contamination. Coast Grain shall then backfill and compact with uncontaminated soil.

Union Pacific has no plans to perform subsurface work in this area including grading or installation of pipelines.

A copy of this proposal will be kept on the Coast Grain Company lease file at Union Pacific with understanding that should Coast Grain vacate the site Coast Grain is responsible for final remediation, if determined to be required.

Respectfully Yours,

J.T. Gorley  
Manager Environmental Field Operations

cc: Richard J. Zadina - Please place a copy of this letter on the Coast Grain lease agreement file. It will serve as our record that the contamination is not to be disturbed.



# California Regional Water Quality Control Board

## Santa Ana Region



Winston H. Hickox  
Secretary for  
Environmental  
Protection

Internet Address: <http://www.swrcb.ca.gov>  
3737 Main Street, Suite 500, Riverside, California 92501-3339  
Phone (909) 782-4130 ☎ FAX (909) 781-6288

Gray Davis  
Governor

September 24, 1999

Mr. Barry Koca  
By-Products and Transportation Manager  
Coast Grain Company, Citrus Division  
P. O. Box 3610  
Ontario, CA 91761

### APPROVAL OF CLOSURE REPORT FOR THE BRINE DISPOSAL POND, COAST GRAIN COMPANY, ONTARIO, CALIFORNIA

Dear Mr. Koca:

We have reviewed the final report regarding closure of the brine disposal pond at the Coast Grain site. The pond site is owned by the Union Pacific Railroad Company (UP), and is adjacent to the boiler room at the Coast Grain facility. The pond was used for disposal of boiler blowdown water until 1997. The closure project included removal and disposal of approximately 7,500 cubic yards of salt-contaminated soil, placement of a 40 mil, high-density polyethylene (HDPE) liner, and backfill of the excavation using select sand and clean soil. The boiler blowdown water has been re-routed to discharge into a temporary storage tank with secondary containment. When the tank is full, the brine is discharged to the Santa Ana River Interceptor (SARI) line, under permit from the Chino Basin Municipal Water district.

The closure report includes a copy of the August 11, 1998 letter from Jim Gorley of UP, assuring that there shall be no further excavation or development of the section of railway property encompassing the former pond site. It is our understanding that copies of Mr. Gorley's letter will remain in permanent files at both the Coast Grain office, and the UP office in Omaha, Nebraska.

Based on the information you have provided, and our staff's May 6, 1999 inspection of the former brine disposal area, the brine pond closure project is deemed complete. If you have any questions regarding this letter, please call me at (909) 782-4904.

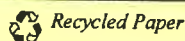
Sincerely,

Ann E. Sturdivant  
Associate Engineering Geologist

cc: Jim T. Gorley, Manager, Environmental Field Operations, Union Pacific Railroad Co., Room 930, 1416 Dodge Street, Omaha, NE 68179

AES/coastgr/pond-clo.doc

*California Environmental Protection Agency*





## PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT

### **The Scoular Company**

5355 East Airport Drive  
Ontario, California 91761

Report Date: August 18, 2016  
Partner Project No. 16-163550.1



Prepared for:

### **Prologis**

Pier 1, Bay 1  
San Francisco, CA 94111



August 18, 2016

Janet Frentzel  
Prologis  
Pier 1, Bay 1  
San Francisco, CA 94111

Subject: Phase I Environmental Site Assessment  
The Scoular Company  
5355 East Airport Drive  
Ontario, California 91761  
Partner Project No. 16-163550.1

Dear Ms. Frentzel:

Partner Engineering and Science, Inc. (Partner) is pleased to provide the results of the *Phase I Environmental Site Assessment* (Phase I ESA) report of the abovementioned address (the "subject property"). This assessment was performed in general conformance with the scope and limitations as detailed in the ASTM Practice E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

This assessment included a site reconnaissance as well as research and interviews with representatives of the public, property ownership, site manager, and regulatory agencies. An assessment was made, conclusions stated, and recommendations outlined.

We appreciate the opportunity to provide environmental services to you. If you have any questions concerning this report, or if we can assist you in any other matter, please contact me at (818) 337-1203.

Sincerely,



Misty Vazquez Ponce  
Principal

## EXECUTIVE SUMMARY

---

Partner Engineering and Science, Inc. (Partner) has performed a Phase I Environmental Site Assessment (ESA) in general accordance with the scope of work and limitations of ASTM Standard Practice E1527-13, the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (AAI) (40 CFR Part 312) and as set forth by the Master Services Agreement between Prologis and Partner dated April 18, 2013 for the property located at 5355 East Airport Drive in the City of Ontario, San Bernardino County, California (the "subject property"). The Phase I Environmental Site Assessment is designed to provide Prologis with an assessment concerning environmental conditions (limited to those issues identified in the report) as they exist at the subject property.

### Property Description

The subject property is located on the north side of East Airport Drive, approximately 2,700 feet west of the intersection of Etiwanda Avenue and Airport Drive, and southeast of the Interstates 10 and 15 Interchange. The subject property is located within a mixed commercial and industrial area of the City of Ontario in San Bernardino County. Please refer to the table below for further description of the subject property:

#### **Subject Property Data**

<b>Address:</b>	5355 East Airport Drive, Ontario, California
<b>Historical Address:</b>	Before development Airport Drive was known as "Slover Avenue"
<b>Property Use:</b>	Commercial/Industrial
<b>Land Acreage (Ac):</b>	14.2 Ac
<b>Number of Buildings:</b>	5
<b>Number of Floors:</b>	1
<b>Gross Building Area (SF):</b>	17,000 square foot (SF) (Office/Warehouse); 7,000 SF (Truck Repair Shop); 1,600 SF (Warehouse); 3,600 SF (Grain Storage-East); and 9,000 (Grain Storage-West)*
<b>Net Rentable Area (SF):</b>	See above
<b>Date of Construction:</b>	Between 1965 and 1973
<b>Assessor's Parcel Numbers (APNs):</b>	0238-052-020 (Parcel A); 0238-052-022 (Parcel B); 0238-052-029 (Parcel C)
<b>Type of Construction:</b>	<u>Office/Warehouse</u> - Wood-Framed (Offices & Maintenance Area) <u>Truck Repair Shop</u> - Concrete Block (Maintenance Building) <u>Warehouse</u> - Concrete Block (Warehouse) <u>Grain Storage-East</u> - Wood-Framed Corrugated Metal (Retail Grain Distribution) <u>Grain Storage-West</u> - Wood-Framed Corrugated Metal (Wholesale Grain Distribution)
<b>Current Tenants:</b>	The Scoular Company, with a sub-lease on the subject property to Verhoeven Grain Company
<b>Site Assessment Performed By:</b>	Janet Tentler of Partner
<b>Site Assessment Conducted On:</b>	June 29, 2016

\*Square footage was estimated from Google Earth

The subject property is a grain processing facility that has been in operation since at least 1973. Onsite operations consist of loading and unloading of multiple types of grain from trucks or the adjacent railyard and storing, milling, and processing for bulk and retail sale. Grain from the adjacent rail yard is off-loaded from the southern-most adjacent railroad spur and transported in an underground grain screw conveyor system to the centrally-located grain mill for processing, or to the grain silos for storage. The raw materials are steamed, rolled, and flattened into finish products. In addition to the current structures, the subject property is also improved with bulk storage silos, a vehicle wash-down area, and associated sheds. Maintenance areas are located within the Office/Warehouse and Truck Repair Shop buildings. One service pit was observed within the Truck Repair Shop building, in the maintenance area.

According to available historical sources, the subject property was formerly undeveloped as early as 1938; developed as agricultural land between 1938 and circa 1970; and developed with the current structures circa 1973. Previous owners have included Robertson Farm's Company (1946-1956) and Southern Pacific Grain Company (1956-1976), although aerial photographs indicate that no buildings/operations were present/conducted on the site until circa 1973. Since building construction, the following occupants have been located at the subject property: United Dairyman's Association (1976-1978), Chino Grain Company (1978-1985); Coast Grain Company (1985-2003); J.B. Heiskell & Co. (2008); The Scoular Company (2006-Present); and Verhoeven Grain Company (2008-Present).

The immediately surrounding properties consist of commercial warehouses to the north across the railroad tracks (Emser Tile Company at 5300 Shea Center Drive and Dorel Juvenile Group at 5400 Shea Center Drive); Kmart Distribution Center (5600 East Airport Drive) to the south across Airport Drive; Praxair (5735 East Airport Drive) to the east; and a commercial building to the west (5351 East Airport Drive).

According to a nearby investigation report (on GeoTracker), a well located approximately 4 miles to the east of the subject property contained groundwater at approximately 300 feet below ground surface (bgs). Based on topography is anticipated to flow toward the south.

## Findings

A *recognized environmental condition (REC)* refers to the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: due to release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment. The following was identified during the course of this assessment:

- Based on information provided in the Environmental Data Resources, Inc. (EDR) regulatory database report, five former petroleum underground storage tanks (USTs) were located at the subject property since 1988; however, there are inconsistencies on the number and status of the USTs found in other documentation. Partner was able to identify removal/closure records for three of the USTs. Regulatory closure letters address the removal of the three 12,000-gallon diesel USTs (discussed as HRECs below). Separately, at least one UST was suspected to be adjacent to west of the Truck Repair Building. Partner observed evidence of concrete cuts for a possible fuel dispenser in this area. Records for the fifth possible UST were not clear. Based on

the lack of information regarding the status of at least two former suspect USTs at this facility, the former USTs are considered a REC.

- The subject property is currently equipped with two 250-gallon aboveground storage tanks (ASTs) containing diesel fuel. The original installation date is unknown. Diesel fuel is used to maintain the yard equipment, such as the front-end loaders, forklifts, and the bobcats. Minor to moderate staining was observed on the asphalt surface immediately surrounding the ASTs. The asphalt appeared to be in fair to poor condition with cracks observed in the area of the staining. Based on the lack of information regarding the age and installation dates of these ASTs at this facility and site observations, the ASTs are considered a REC.
- Maintenance areas and storage of automotive-related fluids such as motor oil, waste motor oil, and antifreeze was observed in the two central buildings (Office/Warehouse and Truck Repair Shop). Petroleum staining was observed on the concrete floor within these buildings and the condition of the concrete floor was pitted in some areas. In addition, minor staining was observed adjacent to a parts washer. Based on the long-term use of these buildings for maintenance, the usage of petroleum products and hazardous materials and evidence of staining, the historical operations in these areas are considered a REC.
- A former vehicle wash-down area was observed north of the Truck Repair Shop. Partner observed a sump and pump in this area, however, were reportedly no longer in use. According to the site contact, when the vehicle wash-down area was in use, water would collect into the associated sump and "wastewater was pumped into a tank and then stored in 55-gallon drums for off-site disposal." Previous reports indicated a violation was issued by the Regional Water Quality Control Board (RWQCB), which included truck wash water flowing into the parking lot.

According to an inspection report from the RWQCB based on an inspection conducted on August 16, 2001, it was noted that housekeeping at the subject property was poor and that boiler blow-down water was being used for dust control. In April 2001, the RWQCB received an anonymous complaint stating that employees at the subject property were routinely pouring used oil into a drain located outside of the Truck Repair Shop. The RWQCB re-inspected the subject property and was told that water from the truck wash down area discharges through a filter and is pumped from a sump into a 2,810-gallon AST. Employees at the subject property stated that the tank had never been emptied. The subject property was cited with several violations at the time including: truck wash water flowing into the parking lot; storm water exceedances (December 2001); and condensate from the boiler room at the mill discharging onto the ground. Based on the use of this area as a truck wash and reported violations for past housekeeping practices, the historical operations in this area are considered a REC.

*A controlled recognized environmental condition (CREC)* refers to a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

- Partner did not identify controlled recognized environmental conditions during the course of this assessment.

A *historical recognized environmental condition (HREC)* refers to a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls. The following was identified during the course of this assessment:

- Two 12,000 gallon USTs identified as containing diesel were removed from the subject property in July 1989; available file information maps these USTs north of the mill building. In a letter dated September 4, 1998 by the San Bernardino County Fire Department, Hazardous Materials Division (SBCFD), a report prepared by Babcock & Sons, Inc. and dated July 25, 1989 was reviewed by the SBCFD. The letter indicated the "contamination remaining in the excavation is below that which is generally considered a problem and further investigation is not warranted at this time." Based on the reported sampling conducted subsequent issuance of a No Further Action (NFA) letter by SBCFD, the two former 12,000 gallon USTs removed in 1989 are considered an HREC.
- One 12,000 gallon diesel fuel UST and associated dispenser was removed from the area north of the main office/warehouse building in December 2002. Confirmation sampling was conducted beneath the UST and the stockpiled soil which was re-used for backfill of the excavation. Residual petroleum impacts were identified in the stockpiled soil. The SBCFD issued an NFA letter on January 8, 2003 for the removal of the UST and associated dispenser. Based on the removal and subsequent issue of the NFA, the former 12,000 gallon diesel UST located north of the main office building (east of the "former vegetable oil processing center") is considered an HREC.

An *environmental issue* refers to environmental concerns identified by Partner, which do not qualify as RECs; however, warrant further discussion. The following was identified during the course of this assessment:

- The site contact indicated sanitary discharges from the restrooms in the office/warehouse and truck repair shop buildings are directed to on-site septic systems. The site contact was not aware of where the septic systems were located and Partner did not observe any evidence of the septic system during the site visit. Previous reports identified two potential areas of the septic systems on a site figure; however, the prior reports also indicated the location of the septic systems were unknown. No service sinks or floor drains, other than those located in the restrooms, were observed on the subject property. Septic systems are typically of environmental concern due to the potential discharge of petroleum products or hazardous substances; however, since there were no floor drains or evidence of discharges to the septic systems other than for domestic use, the septic system(s) do not appear to be a significant environmental concern.
- The grain processing mill has been in operation since circa 1973. The processing equipment within the mill and underground conveyor systems require lubrication oil; however, no leaking or

other indications of a release were observed during the site reconnaissance. Based on site observations, the equipment use does not appear to be a significant environmental concern.

- The area north of the subject property includes several railroad lines, including rail road spurs which extend onto the subject property. Railroad lines may be of environmental concern due to the use of pesticides, herbicides and oils used for the maintenance of the rail lines, regulated railroad bedding material (slag, gravel, etc.) or chemicals leaching from treated railroad crossties. Based on the commercial nature of the subject property, the presence of the rail lines do not appear to be a significant environmental concern.
- Due to the age of the subject property buildings, there is a potential that asbestos-containing material (ACM) is present. Overall, suspect ACMs were observed in good condition and do not pose a health and safety concern to the occupants of the subject property at this time.

### **Conclusions, Opinions and Recommendations**

Partner has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 of 5355 East Airport Drive in the City of Ontario, San Bernardino County, California (the "subject property"). Any exceptions to, or deletions from, this practice are described in Section 1.5 of this report.

This assessment has revealed evidence of recognized environmental conditions and/or environmental issues in connection with the subject property. Based on the conclusions of this assessment, Partner recommends the following:

- A limited subsurface investigation should be conducted in order to determine the presence or absence of soil and/or groundwater contamination due to the historical use of the subject property.
- An Operations and Maintenance (O&M) Program should be implemented in order to safely manage the suspect ACMs located at the subject property.

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## 1.0 INTRODUCTION

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Partner Engineering and Science, Inc. (Partner) has performed a Phase I Environmental Site Assessment (ESA) in general conformance with the scope and limitations of ASTM Standard Practice E1527-13 and the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (AAI) (40 CFR Part 312) and as set forth by the Master Services Agreement between Prologis and Partner dated April 18, 2013 for the property located at 5355 East Airport Drive in the City of Ontario, San Bernardino County, California (the "subject property"). Any exceptions to, or deletions from, this scope of work are described in the report.

### 1.1 Purpose

The purpose of this ESA is to identify existing or potential Recognized Environmental Conditions (as defined by ASTM Standard E1527-13) affecting the subject property that: 1) constitute or result in a material violation or a potential material violation of any applicable environmental law; 2) impose any material constraints on the operation of the subject property or require a material change in the use thereof; 3) require clean-up, remedial action or other response with respect to Hazardous Substances or Petroleum Products on or affecting the subject property under any applicable environmental law; 4) may affect the value of the subject property; and 5) may require specific actions to be performed with regard to such conditions and circumstances. The information contained in the ESA Report will be used by Client to: 1) evaluate its legal and financial liabilities for transactions related to foreclosure, purchase, sale, loan origination, loan workout or seller financing; 2) evaluate the subject property's overall development potential, the associated market value and the impact of applicable laws that restrict financial and other types of assistance for the future development of the subject property; and/or 3) determine whether specific actions are required to be performed prior to the foreclosure, purchase, sale, loan origination, loan workout or seller financing of the subject property.

This ESA was performed to permit the *User* to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on scope of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. §9601) liability (hereinafter, the "*landowner liability protections*," or "*LLPs*"). ASTM Standard E1527-13 constitutes "*all appropriate inquiry* into the previous ownership and uses of the *property* consistent with good commercial or customary practice" as defined at 42 U.S.C. §9601(35)(B).

### 1.2 Scope of Work

The scope of work for this ESA is in general accordance with the requirements of ASTM Standard E1527-13. This assessment included: 1) a property and adjacent site reconnaissance; 2) interviews with key personnel; 3) a review of historical sources; 4) a review of regulatory agency records; and 5) a review of a regulatory database report provided by a third-party vendor. Partner contacted local agencies, such as environmental health departments, fire departments, and building departments in order to determine any current and/or former hazardous substances usage, storage, and/or releases of hazardous substances on the subject property. Additionally, Partner researched information on the presence of activity and use limitations (AULs) at these agencies. As defined by ASTM E1527-13, AULs are the legal or physical

restrictions or limitations on the use of, or access to, a site or facility: 1) to reduce or eliminate potential exposure to hazardous substances or petroleum products in the soil or groundwater on the subject property; or 2) to prevent activities that could interfere with the effectiveness of a response action, in order to ensure maintenance of a condition of no significant risk to public health or the environment. These legal or physical restrictions, which may include institutional and/or engineering controls (IC/ECs), are intended to prevent adverse impacts to individuals or populations that may be exposed to hazardous substances and petroleum products in the soil or groundwater on the property.

If requested by Client, this report may also include the identification, discussion of, and/or limited sampling of asbestos-containing materials (ACMs), lead-based paint (LBP), mold, and/or radon.

### **1.3 Limitations**

Partner warrants that the findings and conclusions contained herein were accomplished in accordance with the methodologies set forth in the Scope of Work. These methodologies are described as representing good commercial and customary practice for conducting an ESA of a property for the purpose of identifying recognized environmental conditions. There is a possibility that even with the proper application of these methodologies there may exist on the subject property conditions that could not be identified within the scope of the assessment or which were not reasonably identifiable from the available information. Partner believes that the information obtained from the record review and the interviews concerning the subject property is reliable. However, Partner cannot and does not warrant or guarantee that the information provided by these other sources is accurate or complete. The conclusions and findings set forth in this report are strictly limited in time and scope to the date of the evaluations. The conclusions presented in the report are based solely on the services described therein, and not on scientific tasks or procedures beyond the scope of agreed-upon services or the time and budgeting restraints imposed by the Client. No other warranties are implied or expressed.

Some of the information provided in this report is based upon personal interviews, and research of available documents, records, and maps held by the appropriate government and private agencies. This report is subject to the limitations of historical documentation, availability, and accuracy of pertinent records, and the personal recollections of those persons contacted.

This practice does not address requirements of any state or local laws or of any federal laws other than the all appropriate inquiry provisions of the LLPs. Further, this report does not intend to address all of the safety concerns, if any, associated with the subject property.

Environmental concerns, which are beyond the scope of a Phase I ESA as defined by ASTM include the following: ACMs, LBP, radon, and lead in drinking water. These issues may affect environmental risk at the subject property and may warrant discussion and/or assessment; however, are considered non-scope issues. If specifically requested by the Client, these non-scope issues are discussed in Section 6.3.

### **1.4 User Reliance**

Prologis engaged Partner to perform this assessment in accordance with an agreement governing the nature, scope, and purpose of the work as well as other matters critical to the engagement. All reports,

both verbal and written, are for the sole use and benefit of Prologis. Either verbally or in writing, third parties may come into possession of this report or all or part of the information generated as a result of this work. In the absence of a written agreement with Partner granting such rights, no third parties shall have rights of recourse or recovery whatsoever under any course of action against Partner, its officers, employees, vendors, successors or assigns. Any such unauthorized user shall be responsible to protect, indemnify and hold Partner, Client and their respective officers, employees, vendors, successors and assigns harmless from any and all claims, damages, losses, liabilities, expenses (including reasonable attorneys' fees) and costs attributable to such Use. Unauthorized use of this report shall constitute acceptance of and commitment to these responsibilities, which shall be irrevocable and shall apply regardless of the cause of action or legal theory pled or asserted. Additional legal penalties may apply.

This report has been completed under specific Terms and Conditions relating to scope, relying parties, limitations of liability, indemnification, dispute resolution, and other factors relevant to any reliance on this report. Any parties relying on this report do so having accepted the Terms and Conditions for which this report was completed.

### **1.5 Limiting Conditions**

The findings and conclusions contain all of the limitations inherent in these methodologies that are referred to in ASTM E1527-13.

Specific limitations and exceptions to this ESA are more specifically set forth below:

- Interviews with past or current owners, operators, and occupants were not reasonably ascertainable and thus constitute a data gap. Based on information obtained from other historical sources (as discussed in Section 3.0), this data gap is not expected to alter the findings of this assessment.

## 2.0 SITE DESCRIPTION

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### 2.1 Site Location and Legal Description

The subject property at 5355 East Airport Drive in Ontario, California is located on the north side of Airport Drive, west of the intersection of Etiwanda Avenue and Airport Drive, and southeast of the Interstates 10 and 15 Interchange. The subject property is located within a mixed commercial and industrial area of the City of Ontario in San Bernardino County. According to the San Bernardino County Assessor, the subject property is legally described as San Bernardino County APNs 0238-052-020/022/029, a portion of Lot 3, Block 20, Tract 2244, and ownership is currently vested in The Scoular Company since 2006.

Please refer to Figure 1: Site Location Map, Figure 2: Site Plan, Figure 3: Topographic Map, and Appendix A: Site Photographs for the location and site characteristics of the subject property.

### 2.2 Current Property Use

The subject property is currently occupied by The Scoular Company with a sub-lease on the property to Verhoeven Grain Company for commercial/industrial use. The subject property is used as a grain-handling facility that has been in operation since at least 1973. Onsite operations consist of loading and unloading of multiple types of grain from trucks or the adjacent railyard and storing, milling, and processing for bulk and retail sale. Grain from the adjacent rail yard is off-loaded from the southern-most adjacent railroad spur and transported in an underground grain screw conveyor system to the centrally-located grain mill for processing, or to the grain silos for storage. The raw materials are steamed, rolled, and flattened into finish products. In addition to the current structures, the subject property is also improved with bulk storage silos, a vehicle wash-down area, and associated sheds. Maintenance areas are located within the Office/Warehouse and Truck Repair Shop buildings. One service pit was observed within the Truck Repair Shop building, in the maintenance area.

The subject property has landscaping on the southern boundary, along Airport Drive.

The subject property is designated for commercial/industrial development by the City of Ontario.

The subject property was identified as a Facility & Manifest Data (HazNet), Underground Storage Tank (UST), Emissions Inventory Data (EMI), Facility Index System (FINDS), Enforcement and Compliance History Information (ECHO), Statewide Environmental and Evaluation Planning System, Underground Storage Tank (SWEEPS UST), National Pollutant Discharge Elimination System (NPDES), Waste Discharge System (WDS), and San Bernardino County Permit site in the regulatory database report, as further discussed in Section 4.2.

### 2.3 Current Use of Adjacent Properties

The subject property is located within a mixed commercial/industrial area of San Bernardino County. During the vicinity reconnaissance, Partner observed the following land use on properties in the immediate vicinity of the subject property:

### **Immediately Surrounding Properties**

- North:** Railroad tracks beyond which is Emser Tile (5300 Shea Center Drive) and Dorel Juvenile Group (5400 Shea Center Drive)
- South:** Airport Drive beyond which is the Kmart Distribution Center (5600 East Airport Drive)
- East:** Praxair (5705/5735 East Airport Drive)
- West:** A commercial business (5351 East Airport Drive)

The adjacent property to the east, Praxair, was identified as an active Aboveground Storage Tank (AST), NPDES, Spills, Leaks, Investigation & Cleanup Cost Recovery (SLIC), UST, Resource Conservation and Recovery Act-Small Quantity Generator (RCRA-SQG), Waste Discharge System (WDS), and San Bernardino County Permit site in the regulatory database report, as further discussed in Section 4.2.

## **2.4 Physical Setting Sources**

### **2.4.1 Topography**

The United States Geological Survey (USGS) *Guasti, California* Quadrangle 7.5-minute series topographic map was reviewed for this ESA. According to the contour lines on the topographic map, the subject property is located at approximately 980 feet above mean sea level (MSL). The contour lines in the area of the subject property indicate the area is sloping toward the south. The subject property is depicted on the 1981 map as developed with the existing structures.

A copy of the 1981 topographic map is included as Figure 3 of this report.

### **2.4.2 Hydrology**

The direction of groundwater in the vicinity of the subject property is inferred to flow toward the south based on topographic map interpretation. A small unnamed creek is located approximately 0.25 miles and geographically east of the subject property. No settling ponds, lagoons, surface impoundments, wetlands, or natural catch basins were observed at the subject property during this assessment.

According to available information, a public water system operated by the Ontario Municipal Utilities Company serves the subject property vicinity. According to 2015 Urban Water Management Plan, the sources of public water for the City of Ontario is purchased through the Metropolitan Water District and the State of California via the California Aqueduct system. Public drinking water is sourced from surface water bodies. Therefore, groundwater beneath the subject property does not appear to be used for public drinking water. In addition, no irrigation wells or private drinking water wells were observed at the subject property. Therefore, it can be concluded that groundwater beneath the subject property is not used for domestic purposes.

Information specific to the subject property regarding the depth to groundwater and direction of groundwater flow was not available for the subject area. According to a nearby investigation report (on GeoTracker), groundwater was measured in a well located approximately 4 miles to the east of the subject property at approximately 300 feet below ground surface (bgs).

### **2.4.3 Geology/Soils**

The subject property is located in the Upper Santa Ana Valley, which is bounded on the north by the San Gabriel Mountains and the Cucamonga fault, to the east by the Colton-Rialto fault, to the west by the Puente Hills and Chino fault, to the southwest by the Chino Hills, and to the south by the Chino fault and Santa Ana River. The subject property is situated approximately eight to nine miles north-northwest of the Santa Ana River. The water-bearing sediment in the vicinity of the subject property consist of quaternary alluvium, comprised of alluvial-fan and fluvial deposits.

Based on information obtained from the USDA Natural Resources Conservation Service Web Soil Survey online database, the subject property is mapped as Tujunga (TuB) Loamy Sand. The Tujunga series consists of very deep, somewhat excessively drained soils that formed in alluvium from granitic sources. Tujunga soils are on alluvial fans and flood plains, including urban areas. Slopes range from 0 to 5 percent.

### **2.4.4 Flood Zone Information**

Partner performed a review of the Flood Insurance Rate Map, published by the Federal Emergency Management Agency. According to Community Panel Number 06071C8636, dated February 18, 2015, the subject property appears to be located outside of the 100- and 500-year flood plain.

A copy of the reviewed flood map is included in Appendix B of this report.

### 3.0 HISTORICAL INFORMATION

Partner obtained historical use information about the subject property from a variety of sources. A chronological listing of the historical data found is summarized in the table below:

<b>Historical Use Information</b>		
<b>Period/Date</b>	<b>Source</b>	<b>Description/Use</b>
1897-1938	Topographic Maps	Undeveloped/Native land
1938-1966	Aerial Photographs, Topographic Maps	Agricultural land
1973-Present	Aerial Photographs, Building Records, City Directories, Interviews, Onsite Observations, Previous Phase I ESA	Commercial /Industrial

According to available historical sources, the subject property was formerly undeveloped as early as 1938; developed as agricultural land between 1938 and circa 1970; and developed with the current structures circa 1973. Previous owners have included Robertson Farm’s Company (1946-1956) and Southern Pacific Grain Company (1956-1976), although aerial photographs confirm that no operations were on the site until circa 1973. Since building construction the following occupants have been at the subject property: United Dairyman’s Association (1976-1978), Chino Grain Company (1978-1985); Coast Grain Company (1985-2003); J.B. Heiskell & Co. (2008); The Scoular Company (2006-Present); and Verhoeven Grain Company (2008-Present).

#### 3.1 Aerial Photograph Review

Partner obtained available aerial photographs of the subject property and surrounding area from Environmental Data Resources (EDR) on July 1, 2016. The following observations were noted to be visible on the subject property and adjacent properties during the aerial photograph review:

<b>Date:</b>	<b>1938, 1948, 1953, 1959</b>	<b>Scale:</b>	<b>1"=500'</b>
<b>Subject Property:</b>	Agricultural land		
<b>North:</b>	Railroad tracks visible to the north with agricultural land located beyond		
<b>South:</b>	Airport Drive, also known as Slover Avenue, with agricultural land visible beyond		
<b>East:</b>	Agricultural land		
<b>West:</b>	Agricultural land		

<b>Date:</b>	<b>1966</b>	<b>Scale:</b>	<b>1"=500'</b>
<b>Subject Property:</b>	No significant changes visible		
<b>North:</b>	No significant changes visible		
<b>South:</b>	No significant changes visible		
<b>East:</b>	A large commercial property is visible to the east		
<b>West:</b>	No significant changes visible		

<b>Date:</b>	<b>1975</b>	<b>Scale:</b>	<b>1"=500'</b>
<b>Subject Property:</b>	Developed with several buildings and miscellaneous structures. The western portion of the subject property remains agricultural land.		
<b>North:</b>	No significant changes visible		
<b>South:</b>	No significant changes visible		
<b>East:</b>	The commercial property to the east has increased in size		
<b>West:</b>	Developed with a small commercial property several lots to the west		

<b>Date:</b>	<b>1985</b>	<b>Scale:</b>	<b>1"=500'</b>
<b>Subject Property:</b>	The grain storage building is visible on the south-central portion of the subject property.		
<b>North:</b>	No significant changes visible		
<b>South:</b>	Several commercial structures are visible		
<b>East:</b>	The commercial property to the east has continued to increase in size		
<b>West:</b>	A slight increase in commercial development		

<b>Date:</b>	<b>1990, 1994</b>	<b>Scale:</b>	<b>1"=500'</b>
<b>Subject Property:</b>	No significant changes visible; the western portion of the subject property remains depicted as agricultural land		
<b>North:</b>	An increase in commercial development		
<b>South:</b>	An increase in commercial development		
<b>East:</b>	An increase in commercial development		
<b>West:</b>	An increase in commercial development		

<b>Date:</b>	<b>2005, 2009</b>	<b>Scale:</b>	<b>1"=500'</b>
<b>Subject Property:</b>	The subject property appears to be fully developed as observed during the site reconnaissance		
<b>North:</b>	The properties to the north are fully developed		
<b>South:</b>	The properties to the south are fully developed		
<b>East:</b>	The properties to the east are fully developed		
<b>West:</b>	The properties to the west are fully developed		

<b>Date:</b>	<b>2010, 2012</b>	<b>Scale:</b>	<b>1"=500'</b>
<b>Subject Property:</b>	No significant changes visible		
<b>North:</b>	No significant changes visible		
<b>South:</b>	No significant changes visible		
<b>East:</b>	No significant changes visible		
<b>West:</b>	No significant changes visible		

Copies of aerial photographs are included in Appendix B of this report.

### 3.2 Fire Insurance Maps

Sanborn map coverage was not available for the subject property.

A copy of the "No Coverage" letter is attached in Appendix B.



### 3.3 City Directories

Partner reviewed historical city directories obtained from EDR on July 1, 2016 for past names and businesses that were listed for the subject property and adjacent properties. The findings are presented in the following table:

#### *City Directory Search for 5355 East Airport Drive (Subject Property)*

<b>Year(s)</b>	<b>Occupant Listed</b>
1985	Chino Grain
1990-2003	Coast Grain
2008	JB Heiskell & Co, The Scoular Company
2013	Verhoeven Grain Company, The Scoular Company

According to the city directory review, the subject property has been occupied by a grain processing company since at least 1985. Prior to 1973, the subject property was occupied by agricultural land.

Environmental concerns associated with current and previous use are discussed in Section 4.2.

#### *City Directory Search for Adjacent Properties*

<b>Year(s)</b>	<b>Occupant Listed</b>
2008	HC Olsen Construction (5351 East Airport Drive)
2013	Jack B. Kelley (5705 East Airport Drive)
2008-13	EMSER Tile (5300 Shea Center Drive)
2008	Dorel Juvenile Group (5400 Shea Center Drive)

Based on the city directory review, no environmentally sensitive listings were identified for the adjacent property addresses. However, the address for the neighboring property, Praxair, was not identified in the city directory search as Praxair, only as Jack B. Kelley in 2013.

Copies of reviewed city directories are included in Appendix B of this report.

### 3.4 Historical Topographic Maps

Partner reviewed historical topographic maps obtained from EDR. The subject property boundary has been added by EDR and was unable to be altered by Partner; the actual property boundary extends several hundred feet to the west. No pits, ponds, lagoons, or areas of obvious fill were observed in the mapping. The following observations were noted to be depicted on the subject property and adjacent properties during the topographic map review:

**Date:** 1897, 1900, 1903

<b>Subject Property:</b>	The subject property is depicted as undeveloped
<b>North:</b>	Railroad tracks are depicted to the immediate north
<b>South:</b>	Undeveloped land
<b>East:</b>	Undeveloped land
<b>West:</b>	Undeveloped land

**Date:** 1953, 1954

**Subject Property:** No significant changes are depicted  
**North:** Developed with agricultural land; railroad tracks are depicted to the immediate north  
**South:** No significant changes are depicted  
**East:** No significant changes are depicted  
**West:** No significant changes are depicted

**Date:** 1966

**Subject Property:** No significant changes are depicted  
**North:** No significant changes are depicted  
**South:** High power electrical lines are depicted to the south  
**East:** Commercial structures are depicted to the immediate east  
**West:** No significant changes are depicted

**Date:** 1973

**Subject Property:** Four industrial-type buildings are depicted on the subject property (as they appear today)  
**North:** No significant changes we are depicted.  
**South:** No significant changes are depicted; the south adjacent street is identified as Slover Avenue  
**East:** No significant changes are depicted  
**West:** Several new commercial structures are depicted to the west

**Date:** 1981

**Subject Property:** Four industrial-type buildings and several smaller structures are depicted on the subject property  
**North:** No significant changes are depicted  
**South:** No significant changes are depicted  
**East:** An increase in development is depicted to the east and several new structures are depicted in close vicinity of the subject property  
**West:** Interstate 15 is now depicted farther west

**Date:** 2012

**Subject Property:** The topographic map provides detail on roadways and waterways; no structures are identified  
**North, South, East and West:** The topographic map provides detail on roadways and waterways; no structures are identified

Copies of reviewed topographic maps are included in Appendix B of this report.

## 4.0 REGULATORY RECORDS REVIEW

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### 4.1 Regulatory Agencies

#### 4.1.1 State Department

##### *Regulatory Agency Data*

<b>Name of Agency:</b>	Regional Water Quality Control Board (RWQCB), Santa Ana River Basin
<b>Point of Contact:</b>	August Lucas
<b>Agency Address:</b>	3737 Main Street, Suite 500, Riverside, California
<b>Agency Phone Number:</b>	(951) 781-4499
<b>Date of Contact:</b>	June 29, 2016
<b>Method of Communication:</b>	Faxed Request
<b>Summary of Communication:</b>	A review of RWQCB files was performed by Partner on July 11, 2016. The RWQCB files for the subject property address indicate that a brine blow-down pond was historically utilized north of the subject property within the area of the railroad spurs (which appears to be off site). The boiler brine pond was used reportedly as a water softener drainage basin from the on-site boiler facilities. The Union Pacific Railroad closed the pond to use the area for additional service tracks. The Closure Report, dated August 11, 1998, stated that Coast Grain would excavate and remove contaminated soils to a depth 12.5 feet at the bottom of the tie and center track in an area 60 feet wide by 160 feet long. Closure of the off-site brine pond was granted to Coast Grain Company with deed restrictions by the RWQCB on September 24, 1999. The closure project included removal and disposal of approximately 7,500 cubic yards of salt-contaminated soil, placement of a 40-mil, high-density polyethylene (HDPE) liner, and backfill of the excavation using select sand and clean soil. No documents were found regarding violations, complaints, or property inspections.

A copy of pertinent documents is included in Appendix B of this report.

#### 4.1.2 County Department of Public Health, Division of Environmental Health Services

##### *Regulatory Agency Data*

<b>Name of Agency:</b>	San Bernardino County, Department of Public Health, Division of Environmental Health Services (SBCEHS)
<b>Point of Contact:</b>	Claudia Remos
<b>Agency Address:</b>	351 North Mountain View Avenue, San Bernardino, California
<b>Agency Phone Number:</b>	(800) 442-2283
<b>Date of Contact:</b>	July 26, 2016
<b>Method of Communication:</b>	Telephone
<b>Summary of Communication:</b>	According to SBCEHS, they no longer keep records for USTs for petroleum products and have released their records to the San Bernardino County Fire Department, Hazardous Materials Division (described below).

### 4.1.3 County Fire Department

#### Regulatory Agency Data

**Name of Agency:** San Bernardino County Fire Department, Hazardous Materials Division (SBCFD)

**Point of Contact:** Maria Molina

**Agency Address:** 620 South E Street, San Bernardino, California

**Agency Phone Number:** (909) 386-8468

**Date of Contact:** July 1, 2016

**Method of Communication:** Faxed Request

**Summary of Communication:** Partner reviewed SBCFD files on July 19, 2016. Miscellaneous documents were reviewed dated from 1987 to 2003. The documents included a 1987 proposal to install a 12,000-gallon diesel UST provided by Barney's Incorporated, although further handwritten notes in this file indicated a 13,000-gallon UST was delivered in February 1988 (potentially a misrepresentation of the 12,000-gallon tank), a "holiday" test was conducted in February 1988 with approval to backfill and pressure testing was conducted in March 1988. The documents also included a tank disposal form for the removal of two 12,000-gallon USTs and analytical data from July 1989. Based on these documents, a 12,000- or 13,000-gallon diesel UST was installed at the subject property in 1988 and appears to be related to the two USTs removed and sampled in July 1989 as discussed below.

In a letter dated September 4, 1998 by the SBCFD, a report prepared by Babcock & Sons, Inc. and dated July 25, 1989 was reviewed by the SBCFD. The letter indicated the "contamination remaining in the excavation is below that which is generally considered a problem and further investigation is not warranted at this time." The attachment to the letter included a permit issued in July 1989 for the removal of two USTs identified as containing fuel.

In January 1988, conditional approval was granted from the SBCEHS division for the installation of four USTs. The USTs were described as single-walled and included two 4,000 gallon diesel, one 10,000 gallon unleaded, and one 10,000 gallon diesel. No evidence was presented in the file that indicated that these tanks were installed.

In 1999, conditional approval was granted by the SBCFD for the modification of UST system to install monitoring and leak detection. Also included in the documents was an NFA letter issued by the SBCFD for the sampling conducted in March 1999 at the dispenser which was conducted in conjunction with upgrades undertaken in 1998.

Fuel System Closure Documents provided Tank Specialists of California were included in the SBCFD files. A permit was issued in December 2002 for the removal of one 12,000-gallon UST. A letter report prepared by Advanced GeoEnvironmental, Inc. (AGE) for Tank

### Regulatory Agency Data

Specialists of California and dated December 18, 2002 was included in the documents. The letter indicated a 12,000 gallon diesel UST was removed from the area north of the main office building. A dispenser was noted as 5 feet northwest of the UST. AGE collected three soil samples beneath for former UST cavity and four samples from the stockpiled soil. AGE noted the soils beneath the former fuel dispenser location collapsed into the excavation and were not sampled. The analytical results of the stockpile exhibited concentrations of TPH-d of 230 parts per million (ppm) and 800 ppm and trace concentrations of benzene and methyl tert butyl ether (MTBE). No further detections were reported above the laboratory reporting limits. AGE concluded minor impacts of petroleum were encountered in one of the soil stockpiles. AGE indicated the soil stockpiles were used as backfill for the excavation. The SBCFD granted an NFA for December 2002 removal of this 12,000-gallon UST. The date of the letter is January 8, 2002; however, the body of the report identified the December 5, 2002 sampling event. The attachment to this letter included a typewritten note which indicated the soil stockpile was backfilled into the UST excavation and covered with asphalt. A handwritten initial and date of January 7, 2003 is located beneath the note.

A copy of pertinent documents is included in Appendix B of this report.

#### 4.1.4 City Fire Department

### Regulatory Agency Data

<b>Name of Agency:</b>	Ontario City Fire Department
<b>Point of Contact:</b>	Counter Personnel
<b>Agency Address:</b>	303 East B Street, Ontario, California
<b>Agency Phone Number:</b>	(909) 395-2000
<b>Date of Contact:</b>	June 29, 2016
<b>Method of Communication:</b>	In Person
<b>Summary of Communication:</b>	No records for USTs are kept with the City of Ontario Fire Department. The Ontario Fire Department referred Partner to the San Bernardino County Fire Department, Hazardous Materials Division.

#### 4.1.5 Air Pollution Control Agency

##### Regulatory Agency Data

**Name of Agency:** South Coast Air Quality Management District (SCAQMD)  
**Point of Contact:** Lisa Ramos  
**Agency Address:** 21865 Copley Drive, Diamond Bar, California  
**Agency Phone Number:** (909) 396-3700  
**Date of Contact:** July 1, 2016  
**Method of Communication:** Online  
**Summary of Communication:** The subject property maintains a permit to operate for a rail receiving hopper, a hopper train receiving station, bucket elevator, grain elevator, overhead load tank, three silos with a 330,000-bushel capacity each, three clean-out screw conveyors, two transfer conveyors, and one baghouse.

A copy of pertinent documents is included in Appendix B of this report.

#### 4.1.6 Department of Toxic Substances Control

##### Regulatory Agency Data

**Name of Agency:** California Department of Toxic Substances Control (DTSC) – Cypress  
**Point of Contact:** Jone Barrio  
**Agency Address:** 5796 Corporate Avenue, Cypress, California  
**Agency Phone Number:** (714) 484-5337  
**Date of Contact:** June 28, 2016  
**Method of Communication:** Faxed Request/Email  
**Summary of Communication:** Partner received a no records response from the DTSC dated July 5, 2016.

A copy of pertinent documents is included in Appendix B of this report.

#### 4.1.7 Building Department

##### Regulatory Agency Data

**Name of Agency:** Ontario Building Department  
**Point of Contact:** Counter Personnel  
**Agency Address:** 303 East B Street, Ontario, California  
**Agency Phone Number:** (909) 395-2000  
**Date of Contact:** June 29, 2016  
**Method of Communication:** In Person  
**Summary of Communication:** A summary of records was available for review, detailed in the following table.

##### Building Records Reviewed for 5355 East Airport Drive

Year(s)	Owner/Applicant	Description
5-1-87	Coast Grain	499-gallon Propane Tank
1-28-93	Coast Grain	Grain Transfer Pit
9-13-93	Richard Spaeth	Grain Elevator
5-1-97	Coast Grain	Three Grain Silos

A copy of pertinent document is included in Appendix B of this report.

#### 4.1.8 Planning Department

##### Regulatory Agency Data

<b>Name of Agency:</b>	Ontario Planning Department
<b>Point of Contact:</b>	Counter Personnel
<b>Agency Address:</b>	303 East B Street, Ontario, California
<b>Agency Phone Number:</b>	(909) 395-2000
<b>Date of Contact:</b>	July 8, 2016
<b>Method of Communication:</b>	Online
<b>Summary of Communication:</b>	Partner review the City of Ontario's Land Use Plan LU-01. The Land Use Plan indicates that the subject property is zoned as industrial land.

#### 4.1.9 Oil & Gas Exploration

##### Regulatory Agency Data

<b>Name of Agency:</b>	California Division of Oil, Gas and Geothermal Resources (DOGGR)
<b>Point of Contact:</b>	Internet Search
<b>Agency Address:</b>	5816 Corporate Avenue, Suite 200, Cypress, California
<b>Agency Phone Number:</b>	(714) 816-6847
<b>Date of Contact:</b>	June 28, 2016
<b>Method of Communication:</b>	Online
<b>Summary of Communication:</b>	According to DOGGR, no oil or gas wells are located on or adjacent to the subject property.

A copy of pertinent documents is included in Appendix B of this report.

#### 4.1.10 Assessor's Office

##### Regulatory Agency Data

<b>Name of Agency:</b>	San Bernardino County Assessor
<b>Point of Contact:</b>	Online Search
<b>Agency Address:</b>	222 West Hospitality Lane, San Bernardino, California
<b>Agency Phone Number:</b>	(909) 387-8307
<b>Date of Contact:</b>	June 28, 2016
<b>Method of Communication:</b>	Online
<b>Summary of Communication:</b>	According to records reviewed, the subject property is identified by Assessor Parcel Numbers (APNs) 0238-052-020/022/029 and are currently owned by the Scouler Company. No records regarding square footage or building and utility information for the subject property was on file with the San Bernardino County Assessor.

A copy of the current assessor parcel map is included in Appendix B of this report.

## 4.2 Mapped Database Records Search

Information from standard federal, state, county, and city environmental record sources was provided by EDR. Data from governmental agency lists are updated and integrated into one database, which is updated as these data are released. The information contained in this report was compiled from publicly

available sources and the locations of the sites are plotted utilizing a geographic information system, which geocodes the site addresses. The accuracy of the geocoded locations is approximately +/-300 feet.

Using the ASTM definition of migration, Partner considers the migration of hazardous substances or petroleum products in any form onto the subject property during the evaluation of each site listed on the radius report, which includes solid, liquid, and vapor.

#### 4.2.1 Regulatory Database Summary

<b>Radius Report Data</b>				
<b>Database</b>	<b>Search Radius (mile)</b>	<b>Subject Property</b>	<b>Adjacent Properties</b>	<b>Sites of Concern</b>
Federal NPL or Delisted NPL Site	1.00	N	N	N
Federal CERCLIS Site	0.50	N	N	N
Federal CERCLIS-NFRAP Site	0.50	N	N	N
Federal RCRA CORRACTS Facility	1.00	N	N	N
Federal RCRA TSD Facility	0.50	N	N	N
Federal RCRA Generators Site (LQG, SQG, CESQG)	0.25	N	Y	N
Federal IC/EC Registries	0.50	N	N	N
Federal ERNS Site	Subject Property	N	N	N
State/Tribal Equivalent NPL	1.00	N	N	N
State/Tribal Equivalent CERCLIS	1.00	N	N	N
State/Tribal Landfill/Solid Waste Disposal Site	0.50	N	N	N
State/Tribal Leaking Storage Tank Site	0.50	N	Y	N
State/Tribal Registered Storage Tank Sites (UST/AST)	0.25	Y	Y	N
State/Tribal Voluntary Cleanup Sites (VCP)	0.50	N	N	N
State/Tribal Spills	0.50	N	N	N
Federal Brownfield Sites	0.50	N	N	N
State Brownfield Sites	0.50	N	N	N
EDR MGP	Varies	N	N	N
EDR US Hist Auto Station	Varies	N	N	N
EDR US Hist Cleaners	Varies	N	N	N
WDS	Subject Property	Y	N	N
CAFID UST	Varies	Y	Y	N
EMI	Subject Property	Y	N	N
HazNet	Subject Property	Y	N	N
FINDS	Subject Property	Y	N	N
ECHO	Subject Property	Y	N	N
SWEEPS UST	Varies	Y	Y	N
NPDES	Subject Property	Y	N	N
San Bernardino County Permit	Subject Property	Y	N	N



#### **4.2.2 Subject Property Listings**

The subject property was identified as a HazNet, UST, EMI, FINDS, ECHO, Statewide Environmental and Evaluation Planning System, Underground Storage Tank (SWEEPS UST), NPDES, WDS, and San Bernardino County Permit site in the regulatory database report, as discussed below:

- The subject property, identified as Coast Grain, JB Heiskell, and John Powell at 5355 East Airport Drive, is identified as a small quantity generator (SQG) of hazardous waste as indicated on the HazNet, ECHO, FINDS, NPDES, WDS, and the San Bernardino County Permits listings.
- The subject property is listed with five underground storage tanks (USTs) as indicated on the UST and SWEEPS UST listing.
- The subject property is identified as having emissions requiring a Permit to Operate and registration with the South Coast Air Quality Management District (SCAQMD) as indicated by the EMI and FINDS listings.

No listings of reported spills or violations have been reported.

#### **4.2.3 Adjacent Property Listings**

Adjacent properties to the north, east, south, and west were reported in numerous databases, as described below:

- The property identified as Praxair at 5735 East Airport Drive, is located adjacent to the east of the subject property. This site is identified as a LUST, AST, EMI, Statewide Environmental and Evaluation Planning System, Underground Storage Tank (SWEEPS UST), Historical UST (HIST UST), CA FID UST, Historical Waste Cortese (HIST Cortese), RCRA-SQG, NPDES and San Bernardino County Permit site in the regulatory database report. The LUST database listing indicated a release of diesel fuel was reported in 1987, which reportedly impacted soil only. The site also has registered ASTs as indicated by the AST database listing. The site is a registered UST site as indicated by the SWEEPS UST, Hist UST, and CA FID UST listings. The EMI indicates that it is registered with the SCAQMD. This facility is a hazardous waste generator as indicated by the Hist Cortese, RCRA-SQG NPDES, and the San Bernardino County listings. The LUST details are not reported; however, the site was closed by the lead agency in 1988. Based on the site closure, lack of reported violations, and cross-gradient location of this site, this listing is not expected to represent a significant environmental concern and it is unlikely that a regulatory file review for this site would alter the findings of this assessment.
- The property identified as Emser Tile at 5300 Shea Center Drive, is located adjacent to the north of the subject property. This site is on the San Bernardino County Permit listing. Further details are not reported. Based on the database listing, this listing is not expected to represent a significant environmental concern at this time and it is unlikely that a regulatory file review for this site would alter the findings of this assessment.
- The property, identified as Verizon at 5351 East Airport Drive, is located adjacent to the west of the subject property. This site is on the AST and San Bernardino County Permit listings. Further

details are not reported. Based on the database listing, this listing is not expected to represent a significant environmental concern and it is unlikely that a regulatory file review for this site would alter the findings of this assessment.

- The property, identified as Kmart at 5600 East Airport Drive, is located adjacent to the south of the subject property, across East Airport Drive. This site reported a release of diesel fuel in 1992, which reportedly impacted soil only. The details are not reported; however, the site was closed by the lead agency in 1993. Based on the site closure and downgradient location of this site, this listing is not expected to represent a significant environmental concern and it is unlikely that a regulatory file review for this site would alter the findings of this assessment.

Based on the findings, vapor migration is not expected to represent a significant environmental concern at this time.

#### **4.2.4 Sites of Concern Listings**

No additional sites of concern were identified in the database report that warrant discussion in this section.

Based on the findings, vapor migration is not expected to represent a significant environmental concern at this time.

#### **4.2.5 Orphan Listings**

There are nine unmappable "orphan" listings are identified in the regulatory database report. Based on the limited description given in the EDR report, it does not appear that any of the orphan listings are related to the subject property or immediately nearby properties.

A copy of the regulatory database report is included in Appendix C of this report.

## 5.0 USER PROVIDED INFORMATION AND INTERVIEWS

In order to qualify for one of the *Landowner Liability Protections (LLPs)* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the *Brownfields Amendments*), the *User* must conduct the following inquiries required by 40 CFR 312.25, 312.28, 312.29, 312.30, and 312.31. The *User* should provide the following information to the *environmental professional*. Failure to provide this information could result in a determination that *all appropriate inquiries* is not complete. The *User* is asked to provide information or knowledge of the following:

- Review Title and Judicial Records for Environmental Liens and AULs
- Specialized Knowledge or Experience of the User
- Actual Knowledge of the User
- Reason for Significantly Lower Purchase Price
- Commonly Known or *Reasonably Ascertainable* information
- Degree of Obviousness
- Reason for Preparation of this Phase I ESA

Fulfillment of these user responsibilities is key to qualification for the identified defenses to CERCLA liability. Partner requested our Client to provide information to satisfy User Responsibilities as identified in Section 6 of the ASTM guidance.

Pursuant to ASTM E1527-13, Partner requested the following site information from Prologis (User of this report).

### ***User Responsibilities***

<b>Item</b>	<b>Provided By User</b>	<b>Not Provided By User</b>	<b>Discussed Below</b>	<b>Does Not Apply</b>
Environmental Pre-Survey Questionnaire		X		
Title Records, Environmental Liens, and AULs		X		
Specialized Knowledge		X		
Actual Knowledge		X		
Valuation Reduction for Environmental Issues		X		
Identification of Key Site Manager	<b>Section 5.1.3</b>			
Reason for Performing Phase I ESA	<b>Section 1.1</b>			
Prior Environmental Reports	X			
Other		X		

## **5.1 Interviews**

### **5.1.1 Interview with Owner**

The owner of the subject property since 2006, identified as The Scoular Company, was not available to be interviewed at the time of the assessment.

### **5.1.2 Interview with Report User**

Please refer to Section 5.2 below for information requested from the Report User. The information requested was not received prior to the issuance of this report. It is understood that the Report User would not have knowledge of the property that would significantly impact our ability to satisfy the objectives of this assessment. The lack of this information is not considered to represent a significant data gap.

### **5.1.3 Interview with Key Site Manager**

Mr. Caskey, facility manager, indicated that he had no information pertaining to any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the subject property; any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the subject property; or any notices from a governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.

According to Mr. Caskey, the subject property was developed in circa 1973 for commercial/industrial use. Prior to that, the subject property was developed agriculturally as early as 1938. Mr. Caskey further stated that there are no USTs, clarifiers, oil/water separators, or groundwater monitoring wells on the subject property to the best of his knowledge.

### **5.1.4 Interviews with Past Owners, Operators and Occupants**

Interviews with past owners, operators, and occupants were not reasonably ascertainable and thus constitute a data gap.

### **5.1.5 Interview with Others**

As the subject property is not an abandoned property as defined in ASTM 1527-13, interview with others were not performed.

## **5.2 User Provided Information**

### **5.2.1 Title Records, Environmental Liens, and AULs**

Partner received an Environmental Lien and AUL Search report from EDR on June 27, 2016. No record of environmental liens or AUL were identified in the report; the report included a deed from 2003 when The Scoular Company took ownership of the subject property.

### **5.2.2 Specialized Knowledge**

No specialized knowledge of environmental conditions associated with the subject property was provided by the User at the time of the assessment.

### **5.2.3 Actual Knowledge of the User**

No actual knowledge of any environmental lien or AULs encumbering the subject property or in connection with the subject property was provided by the User at the time of the assessment.

### **5.2.4 Valuation Reduction for Environmental Issues**

No knowledge of valuation reductions associated with the subject property was provided by the User at the time of the assessment.

### **5.2.5 Commonly Known or Reasonably Ascertainable Information**

The User did not provide information that is commonly known or *reasonably ascertainable* within the local community about the subject property at the time of the assessment.

### **5.2.6 Previous Reports and Other Provided Documentation**

Partner was provided with a Phase I ESA prepared by Terracon Consultants, Inc. (Terracon) and dated May 3, 2016.

Terracon did not identify any RECs or CRECs; however, an HREC associated with TPH concentrations in soil remaining in place associated with former USTs was identified. Following is a discussion of the pertinent information contained in the Terracon report.

Terracon conducted two previous Phase I ESAs dated May 5, 2009 and January 19, 2010. In addition, Terracon reviewed a Phase I ESA report prepared by SECOR International Incorporated (SECOR) and dated October 8, 2003. The report prepared by SECOR was not included as an attachment to the Terracon report and all information summarized from the SECOR report was obtained from Terracon's summary.

#### SECOR Report Summary

SECOR did not identify any RECs or HRECs; however, several items of environmental concern were identified, which included former USTs, use of petroleum impacted backfill for a tank excavation, septic systems and a history of wastewater and stormwater violations.

Four USTs were removed from the subject property including two 12,000-gallon USTs north of the mill, one 12,000-gallon UST east of the former vegetable oil processing area and one UST of unknown size west of the former truck shop building.

Records reviewed by SECOR at the SBCFD indicated two 12,000-gallon USTs were removed in 1989 and an NFA issued on September 4, 1998. These two USTs were mapped north of the mill. This information confirms what was previously discussed by Partner in Section 4.1.3.

SECOR reported that soil sampling was conducted by another firm in July 2002 in the vicinity of a 12,000-gallon UST located east of the "former vegetable oil processing" center (estimated by Partner to be the Warehouse building on the northern-central portion of the subject property). Soil analytical results identified concentrations of TPH-d of up to 4,500 parts per million (ppm) at 16 feet bgs. The 12,000-gallon diesel UST was removed in December 2002 and received regulatory closure from the SBCFD on

January 8, 2003. This information confirms what was previously discussed by Partner in Section 4.1.3 and referenced as north of the main office building.

According to SECOR, there was no documentation available from the SBCFD that indicated a UST was located west of the Truck Repair Shop. However, at the time of SECOR's site reconnaissance, SECOR reported to have observed a former fueling island in the vicinity of the fourth suspected UST location. Grisanti and Associates sampled this area in 2002 and found TPH-d at a concentration of 11 ppm at 15 feet bgs and no detectable TPH-d at 20 bgs.

SECOR reviewed an undated permit applications on file with the SBCFD for two 4,000-gallon diesel USTs; however, information regarding the location, use, or decommissioning of the USTs was not available. Partner was not able to confirm that these USTs were installed at the subject property.

According to SECOR, a permit dated 1988 to operate five USTs with a hand-written note in the file dated February 25, 1988 indicating that "number of tanks was amended from five to four per signed-off job card."

Terracon also reported that SECOR did not find information regarding size, construction, or location of drain fields associated with the two on-site septic systems. SECOR concluded a septic system located east of the Truck Repair Shop may have historically received truck wash water.

SECOR also performed a file review at the Santa Ana RWQCB and found that storm water discharge from the subject property exceeded the discharge permit benchmark values in 2001 for the following parameters: pH; total suspended solids; oil and grease; total organic carbon; total Kjeldahl nitrogen; biological oxygen demand; and copper. In 2002, the storm water discharge exceeded the benchmark values to total suspended solids, oil and grease, biological oxygen demand, and zinc. A violation was noted by the RWQCB on August 16, 2001 for the absence of a Storm Water Pollution Prevention Plan (SWPPP) and Storm Water Management Plan.

According to an inspection report from the RWQCB based on an inspection conducted on August 16, 2001, it was noted that housekeeping at the subject property was poor and that boiler blow-down water was being used for dust control. In April 2001, the RWQCB received an anonymous complaint stating that employees at the subject property were routinely pouring used oil into a drain located outside of Truck Repair Shop. The RWQCB re-inspected the subject property and was told that water from the truck wash down area discharges through a filter and is pumped from a sump into a 2,810-gallon AST. Employees at the subject property stated that the tank had never been emptied. The subject property was cited with several violations at the time including: truck wash water flowing into the parking lot; storm water exceedances (December 2001); and condensate from the boiler room at the mill discharging onto the ground.

No further previous reports or other pertinent documentation were provided to Partner for review during the course of this assessment.

## 6.0 SITE RECONNAISSANCE

The weather at the time of the site visit was sunny and clear. Refer to Section 1.5 for limitations encountered during the field reconnaissance and Sections 2.1 and 2.2 for subject property operations. The table below provides the site assessment details:

### *Site Assessment Data*

**Site Assessment Performed By:** Janet Tentler  
**Site Assessment Conducted On:** June 29, 2016

The table below provides the subject property personnel interviewed during the field reconnaissance:

### *Site Visit Personnel for 5355 East Airport Drive (Subject Property)*

<b>Name</b>	<b>Title/Role</b>	<b>Contact Number</b>	<b>Site Walk* Yes/No</b>
Jeff Caskey, The Scoular Company	Facility Manager	(909) 390-9566	Yes

\* Accompanied Partner during the field reconnaissance activities and provided information pertaining to the current operations and maintenance of the subject property.

Onsite operations consist of loading and unloading of multiple types of grain from the adjacent railyard, storing, milling, and processing the grain for bulk and retail sale. Grain is off-loaded from the southern-most railroad spur from the adjacent railyard. Grain is carried from the track in an underground grain screw conveyor system to the mill for processing or to the grain silos for storage. In addition to the current structures, the subject property is also improved with bulk storage silos, a vehicle wash-down area, milling facilities, and two maintenance areas. The maintenance areas are located within the Office/Warehouse and Truck Repair Buildings. One service pit was observed within the Truck Repair Shop, in the maintenance area.

Environmental concerns were identified during the onsite reconnaissance related to former USTs, the storage, use, and generation of hazardous substances as further discussed in Sections 6.1 and 6.2.

### **6.1 General Site Characteristics**

#### **6.1.1 Solid Waste Disposal**

Solid waste generated at the subject property is disposed of in commercial dumpsters located within the central portion on the subject property. The City of Ontario removes solid waste from the subject property. According to property personnel, only household trash is collected in the on-site solid waste dumpsters. No evidence of illegal dumping of solid waste was observed during the Partner site reconnaissance.

#### **6.1.2 Sewage Discharge and Disposal**

Sanitary discharges from the subject property are directed to two on-site septic systems, as further discussed in Section 6.1.7.

### **6.1.3 Surface Water Drainage**

Storm water is removed from the subject property primarily by sheet flow action across the paved surfaces towards storm water drains in the public right of way. Site storm water from roofs, landscaped areas, and paved areas is directed to on-site concrete swales, which drain to the public right of way.

The subject property does not appear to be a designated wetland area, based on information obtained from the United States Department of Agriculture. No surface impoundments, wetlands, natural catch basins, settling ponds, or lagoons are located on the subject property. No drywells were identified on the subject property.

### **6.1.4 Source of Heating and Cooling**

Heating and cooling systems as well as domestic hot water equipment are fueled by electricity provided by Southern California Edison (SCE). The mechanical system is comprised of a split system with a central unit rooftop-mounted packaged electric HVAC units. Hot water is provided by individual natural gas hot water heaters.

### **6.1.5 Wells and Cisterns**

No aboveground evidence of wells or cisterns was observed during the site reconnaissance. Two underground grain transfer conveyors were noted within the northern portion of the subject property. The grain is off-loaded from the southern-most track from within the adjacent railyard and is carried from the track in an underground grain screw conveyor system to the mill for processing or to the grain silos for storage. The conveyor is equipped with metal plates that cover the openings during inclement weather conditions.

### **6.1.6 Wastewater**

Domestic wastewater generated at the subject property is disposed by means of two septic systems. One vehicle wash-down area was observed north of the Truck Repair Shop; however, the vehicle wash-down area is no longer utilized. A sump and pump was observed in this area, but were also reported as no longer in use. When the vehicle wash-down area was in use, water would collect in the associated sump and reportedly wastewater was stored in a tank and transferred to 55-gallon drums for off-site disposal. No hazardous material or waste storage is located within the vicinity of the vehicle wash-down area. No industrial process is currently performed at the subject property.

### **6.1.7 Septic Systems**

According to Mr. Caskey, the restrooms in the Office/Warehouse and Truck Repair Buildings are thought to be connected to one or two septic systems. No evidence of any septic systems was observed during the site reconnaissance. Furthermore, Mr. Caskey did not know the construction or location of the septic system. Based on previous reports (see Section 5.2.6), there may be two septic systems located on the subject property, one west of the Office/Warehouse Building and one east of the Truck Repair Shop.

### **6.1.8 Additional Site Observations**

No additional general site characteristics were observed during the site reconnaissance.



## 6.2 Potential Environmental Hazards

### 6.2.1 Hazardous Substances and Petroleum Products Used or Stored at the Site

Partner identified hazardous substances used, stored, and/or generated on the subject property as noted in the following table:

<b>Hazardous Substances and/or Petroleum Products Noted Onsite</b>				
<b>Substance</b>	<b>Container Size</b>	<b>Location</b>	<b>Nature of Use</b>	<b>Disposal Method</b>
Antifreeze	10 x 5-gallon containers	Northeast Corner of Office/Warehouse	Auto Repair Activities	N/A
Motor Oil	10 x 55-gallon drums	Maintenance Area, Truck Repair Shop	Routine Maintenance	N/A
Waste Motor Oil	10 x 55-gallon drums	Maintenance Area, Truck Repair Shop	Routine Maintenance	Asbury Environmental
Grease	10 x 5-gallon containers	Maintenance Area, Truck Repair Shop	Routine Maintenance	N/A
Waste Grease	1 x 55-gallon drum	Maintenance Area, Truck Repair Shop	Routine Maintenance	Asbury Environmental
Diesel Fuel	2 x 250-gallon ASTs	Northeast Corner of Office/Warehouse	Fueling of yard vehicles	N/A
Parts Washer	1 x 55-gallon drum	Maintenance Area, Truck Repair Shop	Routine Maintenance	Asbury Environmental
Hydraulic Oil	1 x 85-gallon AST	Northeast Corner of Office/Warehouse	Routine Maintenance	N/A
Propane	1x499-gallon tank	Near Warehouse building	To power forklifts and pallet jacks	N/A

The majority of the materials appeared to be properly labeled and stored at the time of the assessment. Several of the containers were observed on secondary containment pallets. The containers observed were generally in good condition with no leaking and minor staining observed on the containers. Based on site observations, the above materials do not expect to be of significant environmental concern for the subject property. See Section 6.2.3 for further discussion of staining.

### 6.2.2 Aboveground & Underground Hazardous Substance or Petroleum Product Storage Tanks (ASTs/USTs)

Partner observed two 250-gallon aboveground storage tanks (ASTs) for the storage of diesel fuel on the subject property. The ASTs are located on the northeast corner of the main office/warehouse building. According to Mr. Caskey, the ASTs were installed previous to his arrival in 2012 and are equipped with secondary containment. Mr. Caskey indicated the diesel fuel is used to maintain the yard equipment, such as the front-end loaders, forklifts, and the bobcats. Minor to moderate staining was observed on the asphalt immediately surrounding the ASTs, and cracks in the pavement were observed.

Partner also observed numerous larger (10,000-gallon plus) ASTs and silos for the grain milling operations, which reportedly contained grains, water, and food grade oil with molasses. No petroleum products or hazardous substances were stored within these ASTs and silos.

Mr. Caskey thought the USTs were located beneath the canopy adjacent to Truck Repair Shop. Partner observed concrete cuts in this area which appeared to be from a former dispenser island.

### **6.2.3 Evidence of Releases**

Minor to moderate staining was observed on the asphalt immediately surrounding the two 250-gallon ASTs. The asphalt was in poor condition with cracks observed in the area of the staining. Minor to moderate petroleum staining was also observed on the concrete floor in the maintenance areas in the office/warehouse building and truck repair shop. Minor staining was also observed on the concrete floor near the parts washer in the truck repair shop. The concrete floor appeared to be pitted in some of the areas. No drains were observed in these areas. Based on site observations, releases of petroleum products or hazardous materials may have adversely impacted the subject property.

### **6.2.4 Polychlorinated Biphenyls (PCBs)**

Older transformers and other electrical equipment could contain PCBs at a level that subjects them to regulation by the U.S. EPA. PCBs in electrical equipment are controlled by United States Environmental Protection Agency regulations 40 CFR, Part 761. Under the regulations, there are three categories into which electrical equipment can be classified: 1) Less than 50 parts per million (ppm) of PCBs – “Non-PCB;” 2) 50 ppm-500 ppm – “PCB-Contaminated;” and, 3) Greater than 500 ppm – “PCB-Containing.” The manufacture, process, or distribution in commerce or use of any PCB in any manner other than in a totally enclosed manner was prohibited after January 1, 1977.

The on-site reconnaissance addressed indoor and outdoor transformers that may contain PCBs. Two pad-mounted transformers were observed on the subject property. The transformers were labeled indicating no PCB content. No staining or leakage was observed in the vicinity of the transformers. Based on the good condition of the equipment, the transformer is/transformers are not expected to represent a significant environmental concern.

Additionally, no other current potential PCB-containing equipment (interior transformers, oil-filled switches, hoists, lifts, dock levelers, hydraulic elevators, balers, etc.) was observed on the subject property during Partner’s reconnaissance. Mr. Caskey reported that the grain elevators and conveyors are currently pneumatic, although this may not have been the case since its original construction, no records of former equipment were available for review as part of this Phase I ESA.

### **6.2.5 Strong, Pungent or Noxious Odors**

No strong, pungent, or noxious odors were evident during the site reconnaissance.

### **6.2.6 Pools of Liquid**

No pools of liquid were observed on the subject property during the site reconnaissance.

### 6.2.7 Drains, Sumps and Clarifiers

No drains, sumps, or clarifiers, other than those associated with storm water removal, were observed on the subject property during the site reconnaissance.

### 6.2.8 Pits, Ponds and Lagoons

One pit was observed within Truck Repair Shop, in the maintenance area. The pit was used for the servicing of equipment. No ponds or lagoons were observed on the subject property.

### 6.2.9 Stressed Vegetation

No stressed vegetation was observed on the subject property.

### 6.2.10 Additional Potential Environmental Hazards

No additional environmental hazards, including landfill activities or radiological hazards, were observed.

## 6.3 Non-ASTM Services

### 6.3.1 Asbestos-Containing Materials (ACMs)

Asbestos is the name given to a number of naturally occurring, fibrous silicate minerals mined for their useful properties such as thermal insulation, chemical and thermal stability, and high tensile strength. The Occupational Safety and Health Administration (OSHA) regulation 29 CFR 1926.1101 requires certain construction materials to be *presumed* to contain asbestos, for purposes of this regulation. All thermal system insulation (TSI), surfacing material, and asphalt/vinyl flooring that are present in a building constructed prior to 1981 and have not been appropriately tested are "presumed asbestos-containing material" (PACM).

The subject property buildings were constructed prior to 1973. Partner has conducted a limited, visual evaluation of accessible areas for the presence of suspect ACMs at the subject property. The objective of this visual survey was to note the presence and condition of suspect ACM observed. Please refer to the table below for identified suspect ACMs:

<b>Suspect ACMs</b>			
<b>Suspect ACM</b>	<b>Location</b>	<b>Friable Yes/No</b>	<b>Physical Condition</b>
Drywall Systems	Office Area (Office/Warehouse Building)	No	Good
Linoleum	Office Area (Office/Warehouse Building)	No	Good
Floor Tile and Carpet Mastic	Office Area (Office/Warehouse Building)	No	Good
Baseboard Mastic	Office Area (Office/Warehouse Building)	No	Good
Ceiling Tiles	Office Area (Office/Warehouse Building)	No	Good
Spray-Applied Insulation	AST – (food grade oil)	Yes	Good
Insulated Piping	AST – (food grade oil)	No	Good

The limited visual survey consisted of noting observable materials (materials which were readily accessible and visible during the course of the site reconnaissance) that are commonly known to potentially contain

asbestos. This activity was not designed to discover all sources of suspect ACM, PACM, or asbestos at the site; or to comply with any regulations and/or laws relative to planned disturbance of building materials such as renovation or demolition, or any other regulatory purpose. Rather, it is intended to give the User an indication if significant (significant due to quantity, accessibility, or condition) potential sources of ACM or PACM are present at the subject property. Additional sampling, assessment, and evaluation will be warranted for any other use.

Partner was not provided building plans or specifications for review, which may have been useful in determining areas likely to have used ACM.

According to the US EPA, ACM and PACM that is intact and in good condition can, in general, be managed safely in-place under an Operations and Maintenance (O&M) Program until removal is dictated by renovation, demolition, or deteriorating material condition. Prior to any disturbance of the construction materials within this facility, a comprehensive ACM survey is recommended.

### **6.3.2 Lead-Based Paint (LBP)**

Lead is a highly toxic metal that affects virtually every system of the body. LBP is defined as any paint, varnish, stain, or other applied coating that has 1 mg/cm<sup>2</sup> (or 5,000 µg/g or 0.5% by weight) or more of lead. Congress passed the Residential Lead-Based Paint Hazard Reduction Act of 1992, also known as "Title X," to protect families from exposure to lead from paint, dust, and soil. Under Section 1017 of Title X, intact LBP on most walls and ceilings is not considered a "hazard," although the condition of the paint should be monitored and maintained to ensure that it does not become deteriorated. Further, Section 1018 of this law directed the Housing and Urban Development (HUD) and the US EPA to require the disclosure of known information on LBP and LBP hazards before the sale or lease of most housing built before 1978.

Based on the age of the subject property buildings (pre-1978), there is a potential that LBP is present. Interior and exterior painted surfaces were observed in good condition and therefore not expected to represent a "hazard," although the condition of the paint should be monitored and maintained to ensure that it does not become deteriorated.

### **6.3.3 Radon**

Radon is a colorless, odorless, naturally occurring, radioactive, inert, gaseous element formed by radioactive decay of radium (Ra) atoms. The US EPA has prepared a map to assist National, State, and local organizations to target their resources and to implement radon-resistant building codes. The map divides the country into three Radon Zones, according to the table below:

<b>EPA Radon Zones</b>		
<b>EPA Zones</b>	<b>Average Predicted Radon Levels</b>	<b>Potential</b>
Zone 1	Exceed 4.0 pCi/L	Highest
Zone 2	Between 2.0 and 4.0 pCi/L	Moderate
Zone 3	Less than 2.0 pCi/L	Low

Radon sampling was not conducted as part of this assessment. Review of the U.S. EPA Map of Radon Zones places the subject property in Zone 2. Based upon the radon zone classification, radon is not considered to be a significant environmental concern.

#### **6.3.4 Lead in Drinking Water**

According to available information, a public water system operated by the Ontario Municipal Utilities Company serves the subject property vicinity. According to the City of Ontario and the 2015 Urban Water Management Plan, water supplied to the subject property is in compliance with all State and Federal regulations pertaining to drinking water standards, including lead and copper. Water sampling was not conducted to verify water quality.

#### **6.3.5 Mold**

Molds are microscopic organisms found virtually everywhere, indoors and outdoors. Mold will grow and multiply under the right conditions, needing only sufficient moisture (e.g., in the form of very high humidity, condensation, or water from a leaking pipe, etc.) and organic material (e.g., ceiling tile, drywall, paper, or natural fiber carpet padding).

Partner observed accessible, interior areas for the subject property buildings for significant evidence of mold growth with the exceptions detailed in Section 1.5 of this report; however, this ESA should not be used as a mold survey or inspection. Additionally, this limited assessment was not designed to assess all areas of potential mold growth that may be affected by mold growth on the subject property. Rather, it is intended to give the client an indication as to whether or not conspicuous (based on observed areas) mold growth is present at the subject property. This evaluation did not include a review of pipe chases, mechanical systems, or areas behind enclosed walls and ceilings.

No obvious indications of water damage or mold growth were observed during Partner's visual assessment of the buildings.

### **6.4 Adjacent Property Reconnaissance**

The adjacent property reconnaissance consisted of observing the adjacent properties from the subject property premises.

#### **6.4.1 Hazardous Substances and Petroleum Products Used or Stored at the Site**

The neighboring property to the east, Praxair, was observed to store petroleum products at their location. No obvious signs of spills or leaking containers was observed during the time of the site reconnaissance.

#### **6.4.2 ASTs/USTs for Hazardous Substances or Petroleum Products**

The neighboring property to the east, Praxair, was observed to contain multiple ASTs at their location. No obvious signs of spills or leaking containers was observed during the time of the site reconnaissance.

#### **6.4.3 Evidence of Releases**

No evidence of releases was observed during the time of the site reconnaissance.

## 7.0 FINDINGS AND CONCLUSIONS

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### Findings

A *recognized environmental condition (REC)* refers to the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: due to release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment. The following was identified during the course of this assessment:

- Based on information provided in the EDR regulatory database report, five former petroleum USTs were located at the subject property since 1988; however, there are inconsistencies on the number and status of the USTs found in other documentation. Partner was able to identify removal/closure records for three of the USTs. Regulatory closure letters address the removal of the three 12,000-gallon diesel USTs (discussed as HRECs below). Separately, at least one UST was suspected to be adjacent to west of the Truck Repair Building. Partner observed evidence of concrete cuts for a possible fuel dispenser in this area. Records for the fifth possible UST were not clear. Based on the lack of information regarding the status of at least two former suspect USTs at this facility, the former USTs are considered a REC.
- The subject property is currently equipped with two 250-gallon ASTs containing diesel fuel. The original installation date is unknown. Diesel fuel is used to maintain the yard equipment, such as the front-end loaders, forklifts, and the bobcats. Minor to moderate staining was observed on the asphalt surface immediately surrounding the ASTs. The asphalt appeared to be in fair to poor condition with cracks observed in the area of the staining. Based on the lack of information regarding the age and installation dates of these ASTs at this facility and site observations, the ASTs are considered a REC.
- Maintenance areas and storage of automotive-related fluids such as motor oil, waste motor oil, and antifreeze was observed in the two central buildings (Office/Warehouse and Truck Repair Shop). Petroleum staining was observed on the concrete floor within these buildings and the condition of the concrete floor was pitted in some areas. In addition, minor staining was observed adjacent to a parts washer. Based on the long-term use of these buildings for maintenance, the usage of petroleum products and hazardous materials and evidence of staining, the historical operations in these areas are considered a REC.
- A former vehicle wash-down area was observed north of the Truck Repair Shop. Partner observed a sump and pump in this area, however, were reportedly no longer in use. According to the site contact, when the vehicle wash-down area was in use, water would collect into the associated sump and "wastewater was pumped into a tank and then stored in 55-gallon drums for off-site disposal." Previous reports indicated a violation was issued by the RWQCB, which included truck wash water flowing into the parking lot.

According to an inspection report from the RWQCB based on an inspection conducted on August 16, 2001, it was noted that housekeeping at the subject property was poor and that boiler blow-

down water was being used for dust control. In April 2001, the RWQCB received an anonymous complaint stating that employees at the subject property were routinely pouring used oil into a drain located outside of the Truck Repair Shop. The RWQCB re-inspected the subject property and was told that water from the truck wash down area discharges through a filter and is pumped from a sump into a 2,810-gallon AST. Employees at the subject property stated that the tank had never been emptied. The subject property was cited with several violations at the time including: truck wash water flowing into the parking lot; storm water exceedances (December 2001); and condensate from the boiler room at the mill discharging onto the ground. Based on the use of this area as a truck wash and reported violations for past housekeeping practices, the historical operations in this area are considered a REC.

A *controlled recognized environmental condition (CREC)* refers to a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

- Partner did not identify controlled recognized environmental conditions during the course of this assessment.

A *historical recognized environmental condition (HREC)* refers to a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls. The following was identified during the course of this assessment:

- Two 12,000 gallon USTs identified as containing diesel were removed from the subject property in July 1989; available file information maps these USTs north of the mill building. In a letter dated September 4, 1998 by the SBCFD, a report prepared by Babcock & Sons, Inc. and dated July 25, 1989 was reviewed by the SBCFD. The letter indicated the "contamination remaining in the excavation is below that which is generally considered a problem and further investigation is not warranted at this time." Based on the reported sampling conducted subsequent issuance of a No Further Action (NFA) letter by SBCFD, the two former 12,000 gallon USTs removed in 1989 are considered an HREC.
- One 12,000 gallon diesel fuel UST and associated dispenser was removed from the area north of the main office/warehouse building in December 2002. Confirmation sampling was conducted beneath the UST and the stockpiled soil which was re-used for backfill of the excavation. Residual petroleum impacts were identified in the stockpiled soil. The SBCFD issued an NFA letter on January 8, 2003 for the removal of the UST and associated dispenser. Based on the removal and subsequent issue of the NFA, the former 12,000 gallon diesel UST located north of the main office building (east of the "former vegetable oil processing center") is considered an HREC.

An *environmental issue* refers to environmental concerns identified by Partner, which do not qualify as RECs; however, warrant further discussion. The following was identified during the course of this assessment:

- The site contact indicated sanitary discharges from the restrooms in the office/warehouse and truck repair shop buildings are directed to on-site septic systems. The site contact was not aware of where the septic systems were located and Partner did not observe any evidence of the septic system during the site visit. Previous reports identified two potential areas of the septic systems on a site figure; however, the prior reports also indicated the location of the septic systems were unknown. No service sinks or floor drains, other than those located in the restrooms, were observed on the subject property. Septic systems are typically of environmental concern due to the potential discharge of petroleum products or hazardous substances; however, since there were no floor drains or evidence of discharges to the septic systems other than for domestic use, the septic system(s) do not appear to be a significant environmental concern.
- The grain processing mill has been in operation since circa 1973. The processing equipment within the mill and underground conveyor systems require lubrication oil; however, no leaking or other indications of a release were observed during the site reconnaissance. Based on site observations, the equipment use does not appear to be a significant environmental concern.
- The area north of the subject property includes several railroad lines, including rail road spurs which extend onto the subject property. Railroad lines may be of environmental concern due to the use of pesticides, herbicides and oils used for the maintenance of the rail lines, regulated railroad bedding material (slag, gravel, etc.) or chemicals leaching from treated railroad crossties. Based on the commercial nature of the subject property, the presence of the rail lines do not appear to be a significant environmental concern.
- Due to the age of the subject property buildings, there is a potential that asbestos-containing material (ACM) is present. Overall, suspect ACMs were observed in good condition and do not pose a health and safety concern to the occupants of the subject property at this time.

### **Conclusions, Opinions and Recommendations**

Partner has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 of 5355 East Airport Drive in the City of Ontario, San Bernardino County, California (the "subject property"). Any exceptions to, or deletions from, this practice are described in Section 1.5 of this report.

This assessment has revealed evidence of recognized environmental conditions and/or environmental issues in connection with the subject property. Based on the conclusions of this assessment, Partner recommends the following:

- A limited subsurface investigation should be conducted in order to determine the presence or absence of soil and/or groundwater contamination due to the historical use of the subject property.



- An Operations and Maintenance (O&M) Program should be implemented in order to safely manage the suspect ACMs located at the subject property.

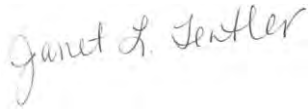
## 8.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

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Partner has performed a Phase I Environmental Site Assessment of the property located at 5355 East Airport Drive in the City of Ontario, San Bernardino County, California in general conformance with the scope and limitations of the protocol and the limitations stated earlier in this report. Exceptions to or deletions from this protocol are discussed earlier in this report.

By signing below, Partner declares that, to the best of our professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR §312. Partner has the specific qualifications based on education, training, and experience to assess a *property* of the nature, history, and setting of the subject *property*. Partner has developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared By:



Janet Tentler  
Environmental Professional

Reviewed By:



Kathy Lehnus  
Project Manager

## 9.0 REFERENCES

---

### Reference Documents

American Society for Testing and Materials, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM Designation: E1527-13

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United States Environmental Protection Agency, EPA Map of Radon Zones (Document EPA-402-R-93-071), accessed via the internet, June 2016.

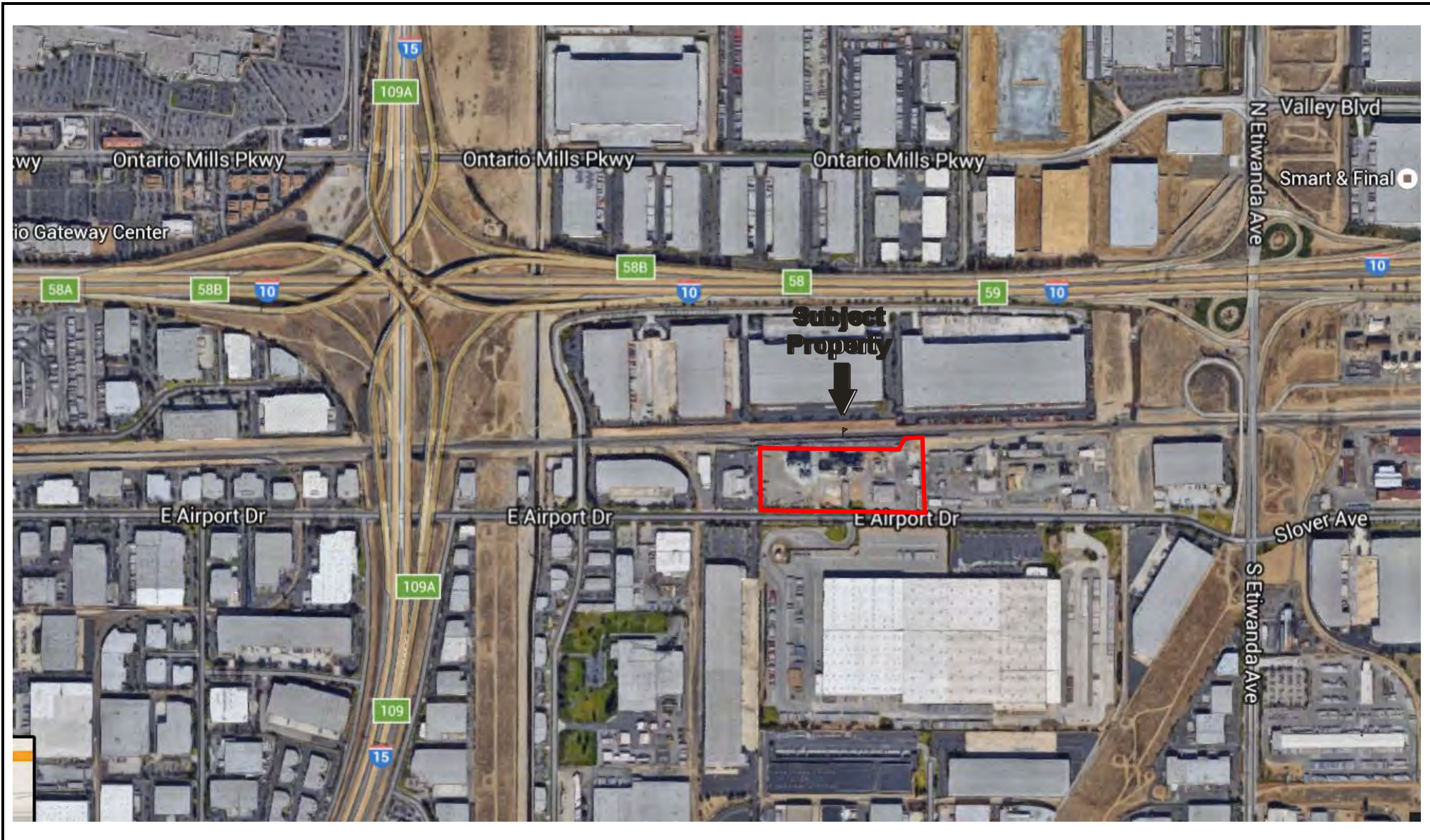
United States Geological Survey, accessed via the Internet, June 2016.

United States Geological Survey Topographic Map 1995, 7.5-minute series, accessed via internet, June 2016.

## **FIGURES**

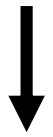
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- 1 SITE LOCATION MAP**
- 2 SITE PLAN**
- 3 TOPOGRAPHIC MAP**



KEY:  
Subject Site 

**FIGURE 1: SITE LOCATION MAP**  
Project No. 16-163550.1

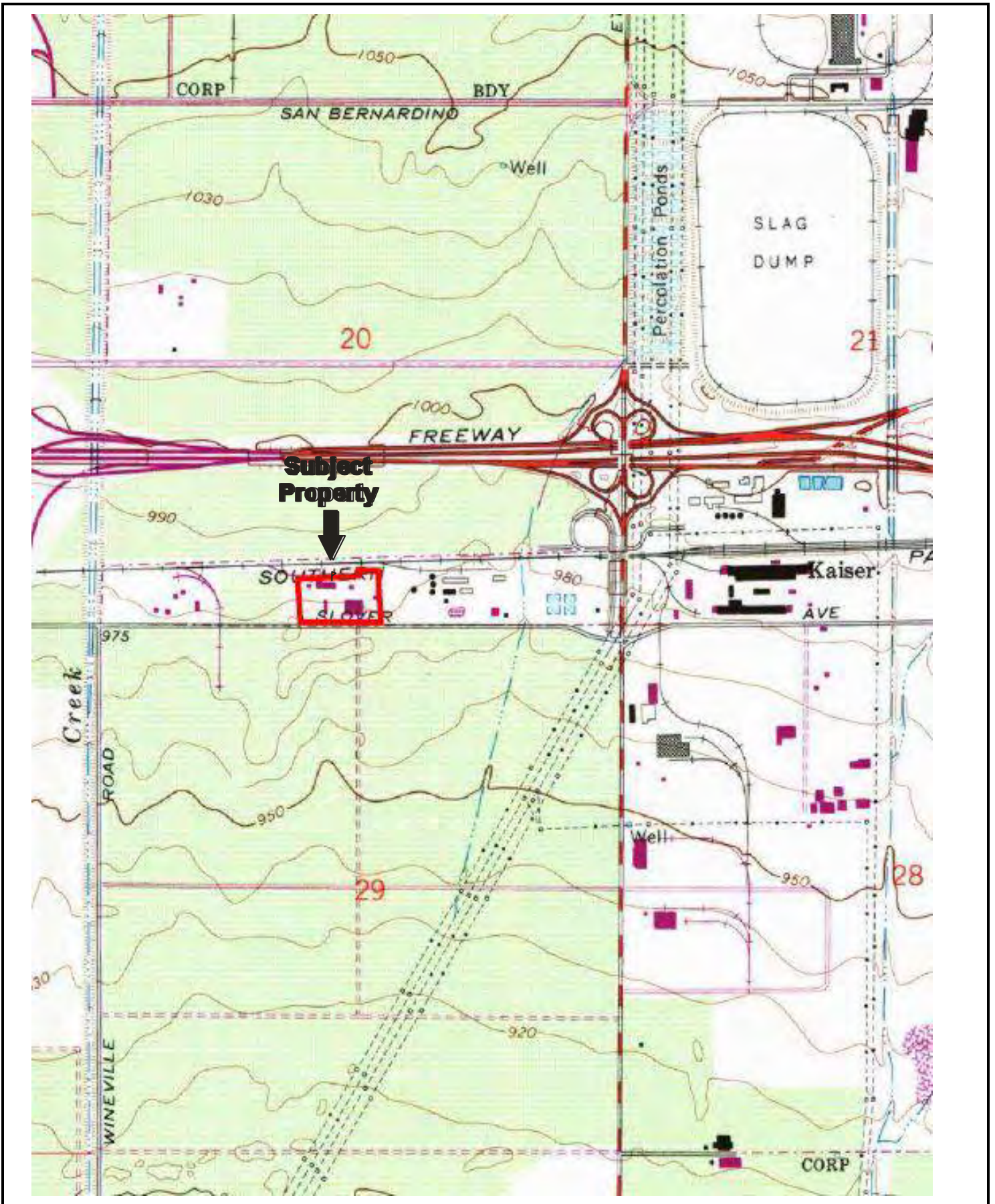


**GROUNDWATER  
FLOW**

KEY:

Subject Site 

**FIGURE 2: SITE PLAN**  
Project No.16-163550.1



USGS 7.5 Minute *Guasti, California* Quadrangle

Created: 1981

**FIGURE 3: TOPOGRAPHIC MAP**  
Project No.16-163550.1

## **APPENDIX A: SITE PHOTOGRAPHS**

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1. View of Main Building (Building A)



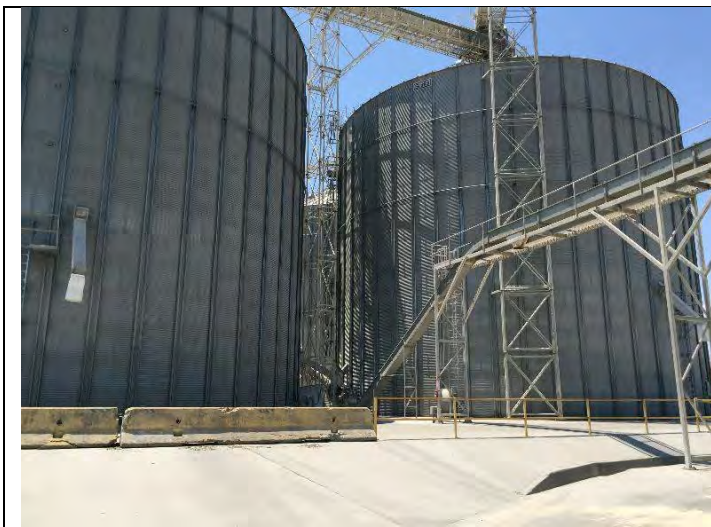
2. View of Warehouse Building (Building C)



3. View of Main Building (Building A)



4. View of Milling Area



5. View of Storage Silos



6. View of Grain Receiving Transfer Conveyor



7. View of Grain Receiving Transfer Conveyor



8. View of Storage Silos



9. View of Grain Storage (Building E)



10. View of Grain Storage (Building D)



11. View of Propane near Warehouse Building (Building C)



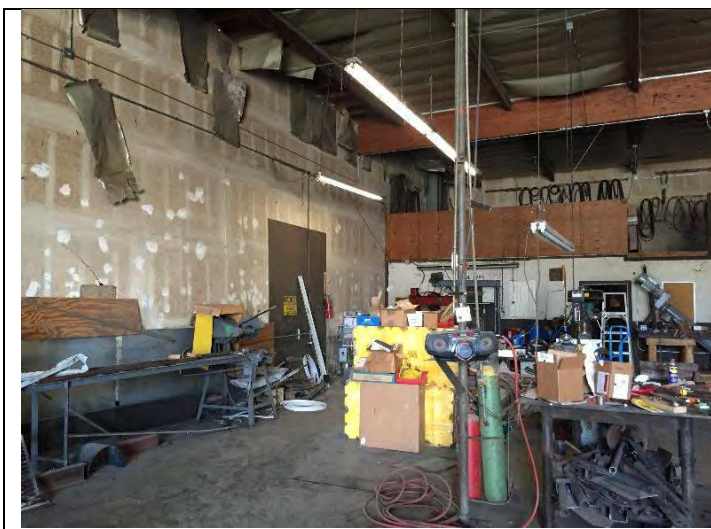
12. View of Diesel ASTs and Hydraulic Oil AST near Main Building (Building A)



13. View of Trash Dumpsters



14. View of Former Vehicle Wash-Down Area



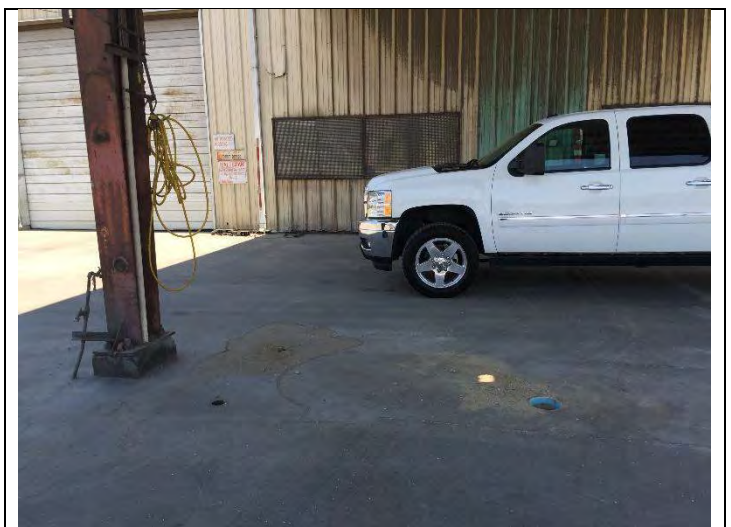
15. View of Interior of Main Building (Building A) Maintenance Area



16. View of Interior of Main Building (Building A) Maintenance Area



17. View of Interior of Main Building (Building A) Maintenance Area



18. View of reported Former UST area near Maintenance Building (Building B)



19. View of Service Pit within Building B



20. View of Waste Oil Storage within Building B



21. View of Maintenance Area within Building B



22. View of Interior Parking/Garage area within Main building (Building A)



23. View of 1 of 2 SCE Pad-Mounted Transformer labeled with No PCBs



24. View of 2 of 2 SCE Pad-Mounted Transformer labeled with No PCBs

## **APPENDIX B: HISTORICAL/REGULATORY DOCUMENTATION**

# Phase I Environmental Site Assessment

Scoular Grain Facility

5355 East Airport Drive

Ontario, San Bernardino County, California

May 3, 2016

Terracon Project No. 60167098



**Prepared for:**

The Scoular Company

Omaha, Nebraska

**Prepared by:**

Terracon Consultants, Inc.

Irvine, California

[terracon.com](http://terracon.com)

**Terracon**

Environmental



Facilities



Geotechnical



Materials

May 3, 2016



The Scoular Company  
2027 Dodge Ste.  
Omaha, NE 68102

Attn: Mr. Tom DiGiorgio  
P: (402) 342 3500

Re: Phase I Environmental Site Assessment  
Scoular Grain Facility  
5355 East Airport Drive  
Ontario, San Bernardino County, California  
Terracon Project No. 60167098

Dear Mr. DiGiorgio:

Terracon Consultants, Inc. (Terracon) is pleased to submit the enclosed Phase I Environmental Site Assessment (ESA) report for the above-referenced site. This assessment was performed in accordance with Terracon Proposal No. P60167098 dated February 23, 2016.

We appreciate the opportunity to be of service to you on this project. In addition to Phase I services, our professionals provide geotechnical, environmental, construction materials, and facilities services on a wide variety of projects locally, regionally and nationally. For more detailed information on all of Terracon's services please visit our website at [www.terracon.com](http://www.terracon.com). If there are any questions regarding this report or if we may be of further assistance, please do not hesitate to contact us.

Sincerely,  
**Terracon Consultants, Inc.**

A handwritten signature in blue ink, appearing to read 'Melanie Seydel'.

Melanie J. Seydel, E.I.T.  
Field Engineer

A handwritten signature in blue ink, appearing to read 'Islam R. Noaman'.

Islam (Sami) R. Noaman, E.I.T.  
Environmental Group Manager

A handwritten signature in blue ink, appearing to read 'David M. Svingen'.

David M. Svingen  
Senior Principal

Attachments

Terracon Consultants Inc. 2817 McGaw Ave Irvine, CA 92614-5835

P 949-261-0051 F 949-261-6110 [terracon.com](http://terracon.com)

Environmental

Facilities

Geotechnical

Materials

Item B - 1744 of 3096

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APPENDIX B	Site Photographs
APPENDIX C	Historical Documentation and User Questionnaire
APPENDIX D	Environmental Database Information
APPENDIX E	Credentials
APPENDIX F	Description of Terms and Acronyms



## EXECUTIVE SUMMARY

This Phase I Environmental Site Assessment (ESA) was performed in accordance with Terracon Proposal No. P60167098 dated February 23, 2016 and our Master Services Agreement date November 12, 2009, and was conducted consistent with the procedures included in ASTM E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The ESA was conducted under the supervision or responsible charge of Islam (Sami) R. Noaman, Environmental Professional. Melanie J. Seydel, E.I.T. performed the site reconnaissance on March 24, 2016.

### Findings

A summary of findings is provided below. It should be recognized that details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein.

#### Site Description and Use

The site is located at 5355 East Airport Drive in the City of Ontario, San Bernardino, California and consists of an approximately 13.37-acre tract of land developed with grain storage and feed mill buildings along with an office/warehouse, several storage sheds, office trailers and a truck shop building. Other site improvements include paved driveway and parking lots along with limited landscaping. At the time of the site reconnaissance, the site was occupied by The Scoular Company and George Verhoeven Grain Inc., which leases the east portion of the site.

The site operates primarily as a grain processing facility. Raw material, including corn and barley, are delivered to the site by truck or rail. The raw material is weighed and unloaded into the storage silos. The raw material is steamed, rolled, and flattened into the finished product and stored on site until delivery.

#### Historical Information

Based on review of available historical information, the site consisted of undeveloped and/or agricultural land from at least the early-1900s through the 1970s when the site was developed with existing mill facility. By the early-2000s, additional improvements to the site were made with large storage silos on the western portion of the site and a storage building on the southeastern corner of the site. The site remained relatively unchanged from early-2000s through the present.

Based on review of a previous Phase I Environmental Site Assessment prepared for the site by SECOR and dated October 8, 2003, it was concluded that evidence of recognized environmental condition (RECs) or historical RECs was not identified for the site, and no further investigation was recommended. However, SECOR identified several conditions of environmental concern including: on-site underground storage tanks (USTs), use of petroleum impacted back-fill in an

on-site tank pit following a UST removal, on-site septic systems, and the long history of wastewater and stormwater violations for the site. However, further inquiry/research into these concerns led SECOR to conclude that these concerns were not indicative of RECs. Additionally, Terracon completed two Phase I ESA reports on May 5, 2009 and January 19, 2010. Terracon ESA reports did not identify RECs associated with the site and no recommendations were provided.

The surrounding adjacent properties consisted of undeveloped and/or agricultural land with railroad tracks to the adjacent north of the site from at least the early-1900s through the 1960s when the property to the adjacent east was developed with the existing industrial facility. By the early-1990s, the property to the adjacent south was developed with an industrial building. By the early-2000s, the properties to the adjacent west and north of the site were developed with industrial buildings and remain relatively unchanged through the present.

### Records Review

Selected federal and state environmental regulatory databases as well as responses from state and local regulatory agencies were reviewed. JD Heiskell Holdings LLC / Coast Grain Inc. / John Powell, located onsite, are listed in the regulatory database as a CA FID UST, EMI, WDS, FINDS, ECHO, HAZNET, UST, SWEEPS UST, NPDES, and San Bernardino County Permit facility. Based on a review of the HAZNET listings, the site generated hazardous waste categorized as tank bottom waste, other organic solids, waste oil and mixed oil, unspecified organic liquid mixture, unspecified aqueous solution, and asbestos containing material from 2002 through 2010. Based on a review of the EMI listing, the site was permitted for emissions with the South Coast Air Quality Management District from 1990 to 2009. Based on a review of the NPDES and WDS listing, the site is listed as an active permitted facility for industrial stormwater and continuous, or seasonal, waste water discharge that is under Waste Discharge Requirements. The site is listed as an NPDES / WDS facility that is considered a minor threat to water quality and either has a passive water treatment system or no treatment system as per the Regional Water Quality Control Board. No other pertinent information was provided in the NPDES and CA WDS database listings. No violations or reported releases are listed for the site. Based on site observations, the absence of violations or reported releases, and waste streams identified at the site, RECs for the site were not identified. Based on a review of the San Bern. Co. Permits listing, the site is currently permitted as a small quantity generator, hazardous material handler, and aboveground petroleum storage 1,320-10,000 gallon capacity facility. Inactive permits for the site were identified as hazardous material handler and waste generator with 0-10 employees, UST ownership/operating permit, and aboveground petroleum storage (SPCC).

Based on a review of the SWEEPS UST listing, the site is listed with five underground storage tanks (USTs) of unknown size and content in 1988. Information regarding the status of the USTs was not identified in the databases searched by EDR. Based on records reviewed by Terracon at the San Bernardino County Fire Department (SBCFD) and information obtained from the San Bernardino County Environmental Health (refer to Section 4.2), four USTs were permitted to operate at the site in 1985 when Chino Grain and Milling occupied the site. Information regarding

USTs at the site prior to 1985 was not available at the aforementioned agencies. Two of the four USTs present at the site in 1985 were identified in the records as one 12,000-gallon unleaded gasoline UST and one 12,000-gallon diesel UST. Information regarding the installation/removal or regulatory status of the other two USTs at the site in 1985 was not available in the records reviewed by Terracon. An additional 12,000-gallon UST was reportedly installed in 1988 and this UST was removed from the site in 2002. Records and regulatory closure documents pertaining to the three 12,000-gallon USTs were identified during Terracon records review (further discussed in Sections 3.7 and 4.2).

Based on a review of Phase I ESA report completed by SECOR on October 8, 2003 (discussed in Section 3.7), three 12,000-gallon diesel USTs, north of the mill building and east of the former vegetable oil processing area, were removed from the site in 1989 and in 2002, and regulatory closure was identified for the three 12,000-gallon USTs. Additionally, a fourth UST of unknown size, reportedly located west of the truck stop, was removed in 1986. Soil sampling was reportedly conducted at the location of a former UST, and concentrations of petroleum hydrocarbons below the applicable screening levels were identified at 15 feet below grade surface (bgs), and TPH concentrations were not detected above laboratory method detection limits at 20 feet bgs. Residual impact of soils in the vicinity of the three USTs and reported location of former UST west of the truck repair shop were reported below Los Angeles Regional Water Quality Control Board Maximum Screening Levels for LUST sites where groundwater is at a depth of greater than 150 feet. Based on information reviewed by Terracon at the SBCFD and the 2003 SECOR ESA report documenting a subsurface investigation conducted by Grisanti and Associates at the site and regional depth of groundwater in the site vicinity, it is our opinion that the residual TPH concentrations remaining at the site appear to represent an HREC. The absence of information regarding the installation/removal or regulatory status of the two unknown USTs at the site in 1985 represents a data gap; however, based on the reported Grisanti & Associates subsurface investigation (SECOR 2003) at the historical suspect location of former UST(s) and anticipated depth to groundwater in the site vicinity, this data gap does not appear to represent a REC to the site.

#### Site Reconnaissance

Based on site reconnaissance, two air compressors, a rail car unloading system, above-ground storage tanks ranging in quantities of 250-gallons and 2,500-gallons, drums and containers ranging in quantities of 5-gallons and 275-gallons, two pad-mounted transformers, and three solid waste disposal dumpsters were observed. Indications of RECs were not identified.

#### Adjoining Properties

Railroad tracks abut the site to the north followed by an industrial building. The property to the adjacent east of the site consists of Praxair. Airport Drive abuts the site to the south followed by K-Mart Distribution Center. The property to the adjacent west of the site consists of Verizon Wireless. RECs were not observed with the adjoining properties.

## **Significant Data Gap**

Significant data gaps were not identified in connection with the site.

## **Opinions and Conclusions**

We have performed a Phase I ESA consistent with the procedures included in ASTM Practice E 1527-13 at 5355 East Airport Drive, Ontario, San Bernardino County, California, the site. Recognized Environmental Conditions (RECs) or Controlled RECs (CREC) were not identified in connection with the site. However, Historical REC associated with TPH concentrations in soil remaining in place associated with former USTs was identified.

## 1.0 INTRODUCTION

### 1.1 Site Description

<b>Site Name</b>	Scouler Grain Facility
<b>Site Location/Address</b>	5355 East Airport Drive, Ontario, San Bernardino County, California. San Bernardino County Assessor Parcel Number 0238052200000 & 0238052290000.
<b>Land Area</b>	Approximately 13.37-acre
<b>Site Improvements</b>	The site is improved with grain storage and feed mill buildings along with an office/warehouse, several storage sheds, office trailers and a truck shop building. Other site improvements include paved driveway and parking lots along with limited landscaping.

The site location is depicted on Exhibit 1 of Appendix A, which was reproduced from a portion of the USGS 7.5-minute series topographic map. A Site Diagram of the site and adjoining properties is included as Exhibit 2 of Appendix A. Acronyms and terms used in this report are described in Appendix F.

### 1.2 Scope of Services

This Phase I ESA was performed in accordance with Terracon Proposal No. P60167098 dated February 23, 2016 and Master Services Agreement dated November 12, 2009, and was conducted consistent with the procedures included in ASTM E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The purpose of this ESA was to assist the client in developing information to identify RECs in connection with the site as reflected by the scope of this report. This purpose was undertaken through user-provided information, a regulatory database review, historical and physical records review, interviews, including local government inquiries, as applicable, and a visual noninvasive reconnaissance of the site and adjoining properties. Limitations, ASTM deviations, and significant data gaps (if identified) are noted in the applicable sections of the report. ASTM E1527-13 contains a new definition of "migrate/migration," which refers to "the movement of hazardous substances or petroleum products in any form, including, for example, solid and liquid at the surface or subsurface, and vapor in the subsurface." By including this explicit reference to migration in ASTM E1527-13, the standard clarifies that the potential for vapor migration should be addressed as part of a Phase I ESA and was considered by Terracon in evaluation of RECs associated with the site.

### 1.3 Standard of Care

This ESA was performed in accordance with generally accepted practices of this profession, undertaken in similar studies at the same time and in the same geographical area. We have

endeavored to meet this standard of care, but may be limited by conditions encountered during performance, a client-driven scope of work, or inability to review information not received by the report date. Where appropriate, these limitations are discussed in the text of the report, and an evaluation of their significance with respect to our findings has been conducted.

Phase I ESAs, such as the one performed at this site, are of limited scope, are noninvasive, and cannot eliminate the potential that hazardous, toxic, or petroleum substances are present or have been released at the site beyond what is identified by the limited scope of this ESA. In conducting the limited scope of services described herein, certain sources of information and public records were not reviewed. It should be recognized that environmental concerns may be documented in public records that were not reviewed. No ESA can wholly eliminate uncertainty regarding the potential for RECs in connection with a property. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs. No warranties, express or implied, are intended or made. The limitations herein must be considered when the user of this report formulates opinions as to risks associated with the site or otherwise uses the report for any other purpose. These risks may be further evaluated – but not eliminated – through additional research or assessment. We will, upon request, advise you of additional research or assessment options that may be available and associated costs.

#### **1.4 Additional Scope Limitations, ASTM Deviations and Data Gaps**

Based upon the agreed-on scope of services, this ESA did not include subsurface or other invasive assessments, vapor intrusion assessments or indoor air quality assessments (i.e. evaluation of the presence of vapors within a building structure), business environmental risk evaluations, or other services not particularly identified and discussed herein. Credentials of the company (Statement of Qualifications) have not been included in this report but are available upon request. Pertinent documents are referred to in the text of this report, and a separate reference section has not been included. Reasonable attempts were made to obtain information within the scope and time constraints set forth by the client; however, in some instances, information requested is not, or was not, received by the issuance date of the report. Information obtained for this ESA was received from several sources that we believe to be reliable; nonetheless, the authenticity or reliability of these sources cannot and is not warranted hereunder.

An evaluation of the significance of limitations and missing information with respect to our findings has been conducted, and where appropriate, significant data gaps are identified and discussed in the text of the report. However, it should be recognized that an evaluation of significant data gaps is based on the information available at the time of report issuance, and an evaluation of information received after the report issuance date may result in an alteration of our conclusions, recommendations, or opinions. We have no obligation to provide information obtained or discovered by us after the issuance date of the report, or to perform any additional services, regardless of whether the information would affect any conclusions, recommendations, or opinions in the report. This disclaimer specifically applies to any information that has not been provided by the client.

This report represents our service to you as of the report date and constitutes our final document; its text may not be altered after final issuance. Findings in this report are based upon the site's current utilization, information derived from the most recent reconnaissance and from other activities described herein; such information is subject to change. Certain indicators of the presence of hazardous substances or petroleum products may have been latent, inaccessible, unobservable, or not present during the most recent reconnaissance and may subsequently become observable (such as after site renovation or development). Further, these services are not to be construed as legal interpretation or advice.

### 1.5 Reliance

This ESA report is prepared for the exclusive use and reliance of The Scoular Company. Use or reliance by any other party is prohibited without the written authorization of The Scoular Company and Terracon Consultants, Inc. (Terracon).

Reliance on the ESA by the client and all authorized parties will be subject to the terms, conditions and limitations stated in the proposal, ESA report, and Terracon's Master Services Agreement. The limitation of liability defined in the Master Services Agreement is the aggregate limit of Terracon's liability to the client and all relying parties.

Continued viability of this report is subject to ASTM E1527-13 Sections 4.6 and 4.8. If the ESA will be used by a different user (third party) than the user for whom the ESA was originally prepared, the third party must also satisfy the user's responsibilities in Section 6 of ASTM E1527-13.

### 1.6 Client Provided Information

Prior to the site visit, Mr. Tom DiGiorgio, client's representative, was asked to provide the following user questionnaire information as described in ASTM E1527-13 Section 6.

#### Client Questionnaire Responses

Client Questionnaire Item	Client Did Not Respond	Client's Response	
		Yes	No
Specialized Knowledge or Experience that is material to a REC in connection with the site.			X
Actual Knowledge of Environmental Liens or Activity Use Limitations (AULs) that may encumber the site.			X
Actual Knowledge of a Lower Purchase Price because contamination is known or believed to be present at the site.			X
Commonly Known or Reasonably Ascertainable Information that is material to a REC in connection with the site.			X

Client Questionnaire Item	Client Did Not Respond	Client's Response	
		Yes	No
Obvious Indicators of Contamination at the site.			X

Terracon's consideration of the client provided information did not identify RECs. A copy of the questionnaire is included in Appendix C.

## 2.0 PHYSICAL SETTING

### Physical Setting

Physical Setting Information		Source
<b>Topography</b> (Refer to Appendix A for an excerpt of the Topographic Map)		
Site Elevation	Approximately 980 feet (NGVD)	USGS Topographic Map, Guasti, California Quadrangle, 1981
Surface Runoff/ Topographic Gradient	Generally towards the south.	
Closest Surface Water	Unnamed creek, approximately 1,480 feet to the east of the site.	
<b>Soil Characteristics</b>		
Soil Type	Delhi	USDA Web Soil Survey <a href="http://websoilsurvey.nrcs.usda.gov/app/">websoilsurvey.nrcs.usda.gov/app/</a>
Description	Somewhat excessively drained sands with negligible to slow runoff and rapid permeability.	
<b>Geology/Hydrogeology</b>		
Formation	Quaternary Deposits	Geological Map of California, Dated 2010
Description	Alluvium, lake, playa, and terrace deposits; unconsolidated and semi-consolidated.	
Estimated Depth to First Occurrence of Groundwater	Approximately 250 feet bgs at the site.	SECOR, "Final Phase I Environmental Site Assessment, Scoular Grain Company, 5355 East Airport Drive, Ontario, CA 91761" dated October 8, 2003.
*Hydrogeologic Gradient	Not known - may be inferred to be parallel to topographic gradient (primarily to the south).	

\* The groundwater flow direction and the depth to shallow, unconfined groundwater, if present, would likely vary depending upon seasonal variations in rainfall and other hydrogeological features. Without the benefit of on-site groundwater monitoring wells surveyed to a datum, groundwater depth and flow direction beneath the site cannot be directly ascertained.



### 3.0 HISTORICAL USE INFORMATION

Terracon reviewed the following historical sources to develop a history of the previous uses of the site and surrounding area, in order to help identify past uses for RECs. Copies of selected historical documents are included in Appendix C.

#### 3.1 Historical Topographic Maps, Aerial Photographs, Sanborn Maps

Readily available historical USGS topographic maps, selected historical aerial photographs (at approximately 10 to 15 year intervals) and historical fire insurance maps produced by the Sanborn Map Company were reviewed to evaluate land development and obtain information concerning the history of development on and near the site. Reviewed historical topographic maps, aerial photographs and Sanborn Maps are summarized below.

Historical fire insurance maps produced by the Sanborn Map Company were requested from EDR to evaluate past uses and relevant characteristics of the site and surrounding properties. Based upon inquiries to the above-listed Sanborn provider, Sanborn maps were not available for the site.

- Topographic map:
  - Southern California Sheet 1, 1901 (1:250,000)
  - Cucamonga, California, 1903 (1:62,500)
  - Guasti Vicinity, California, 1941 (1:31,680)
  - Ontario, California, 1954 (1:62,500)
  - Guasti, California, 1966, photorevised 1973 and 1981 (1:24,000)
  
- Aerial photograph:
  - Laval, 1938, 1"=555'
  - Pacific Air, 1953, 1"=555'
  - Cartwright, 1968, 1"=555'
  - Teledyne, 1977, 1"=666'
  - USGS, 1990, 1994, 2002, 1"=666'
  - EDR, 2005, 1"=485'
  - Bing, 2014, 1"-500'

#### Historical Topographic Maps and Aerial Photographs

Direction	Description
Site	Undeveloped land (1901-1903); agricultural land (1938-1968); developed with existing main office building, mill, storage sheds located in the center and eastern boundary of the site, smaller building north of the office building and agricultural land along the western boundary of the site with a railroad spur (1977-1994); an addition of large storage silos on the western portion of the site and a storage building on the southeastern corner of the site (2002-2014).

Direction	Description
North	Railroad tracks followed by undeveloped land (1901-1903); railroad tracks followed by agricultural land (1938-1977); railroad tracks followed by apparent vacant land (1990-1994); railroad tracks followed by large industrial-type buildings (2002-2014).
East	Undeveloped land (1901-1903); agricultural land (1938-1953); industrial facility consisting of several above-ground tanks and buildings (1968-2014).
South	Undeveloped land (1901-1903); agricultural land (1938); a paved road followed by agricultural land (1953-1977); a paved road followed by a small building and a parking lot for a large industrial-type building (1990); aforementioned industrial-type building expanded to the west (1994-2014).
West	Undeveloped land (1901-1903); agricultural land (1938-1968); agricultural land followed by a railroad spur and industrial-type facility (1977); agricultural land followed by a large office-type building and railroad spur (1990-1994); existing industrial-type buildings (2002-2014).

### 3.2 Site Ownership

Based on a review of the title commitment provided by Texas Environmental Research, the current site owner is Scoular Company.

### 3.3 Historical City Directories

The Haines Criss-Cross, SBC Pacific Bell, GTE, Lusky Brothers, San Bernardino Directory Co., Los Angeles Directory Company, Southern California Telephone Company, Associated Telephone Company Limited, and R.L. Polk & Co. city directories used in this study were made available through EDR (selected years reviewed: 1980-2003) and were reviewed at approximate five year intervals, if readily available. Street listings not available prior to 1985. The current street address for the site was identified as 5355 East Airport Drive.

#### Historical City Directories

Direction	Description
Site	<u>5355 East Airport Drive</u> – No listing (1980); <u>Chino Grain &amp; Milling Inc (1985), Coast Grain Co. (1990-2003); JB Heiskell &amp; Company, The Scoular Company (2008); The Scoular Company, Verhoeven Geo Grain Inc. (2013).</u>
North	<u>5300 Shea Center Drive</u> – No listing (1980-2003); <u>Emser Tile LLC (2008-2013).</u>
East	<u>5735 East Airport Drive</u> – No listing (1980-2008); <u>Praxair Inc. (2013).</u>
South	<u>5600 East Airport Drive</u> - <u>TMHE Contracting, K-Mart Corp (1980); K-Mart Distribution (1985-2013).</u>
West	<u>5351 East Airport Drive</u> – No listing (1980-2003); <u>Olsen HC Construction (2008).</u>

The above underlined facilities and/or addresses were identified in the regulatory database report and are further discussed in Section 4.1.

### 3.4 Title Search

County Deed Records were reviewed by Texas Environmental Research of Rockwall, California to obtain a chain-of-title for the site. Ownership records were reviewed back to 1936. The title information is included in Appendix C.

Based on a review of the title provider's research, the current site owner is Scoular Company (2003-present). In addition, previous owners identified included Coast Grain Feed Company (1985-2003); Chino Grain and Milling Incorporated (1978-1985); United Dairymans Association (1976-1978); Southern Pacific Grain Company (1956-1976); Robertson Farms Company (1946-1956); and various private individuals.

### 3.5 Environmental Liens and Activity and Use Limitations

At the direction of the client, performance of a review of these records was included as part of the scope of services by engaging Texas Environmental Research of Rockwall, Texas. Based on a review of the title provider's research, environmental lien or AULs records were not identified.

### 3.6 Interview Regarding Current and Historical Site Uses

The following individual was interviewed regarding the current and historical use of the site.

#### Interviewee

Interviewer	Interviewee/Phone #	Title	Date/Time
Ms. Melanie J. Seydel	Mr. Jeff Caskey / 909-390-9566	Manager	March 24, 2016 / 8:00 AM

Terracon interviewed Mr. Jeff Caskey with The Scoular Company at the time of the site reconnaissance. Mr. Caskey indicated he has been associated with the site for approximately four years. According to Mr. Caskey, The Scoular Company owns the entire site and leases the eastern portion of the site to George Verhoeven Grain, Inc., which utilizes the onsite equipment and infrastructure for livestock feed manufacturing operations. Mr. Caskey indicated the site buildings are connected to septic tanks which are utilized for sanitary purposes. Mr. Caskey indicated that he is aware of presence of historical USTs at the site; however, he does not have knowledge of details pertaining to installation, removal or status of former USTs. Mr. Caskey was not aware of any water wells or petroleum pipelines associated with the site. Additionally, Mr. Caskey was not aware of any environmental concerns associated with the site or in the site vicinity. In addition, Mr. Caskey was not aware of any pending, threatened or past environmental litigation, proceedings or notices of possible violations of environmental laws or liability or potential environmental concerns in connection with the site.

### 3.7 Prior Report Review

Terracon requested the client provide any previous environmental reports they are aware of for the site. Previous reports were provided by the client to Terracon for review.

- Phase I Environmental Site Assessment  
5355 East Airport Drive, Ontario, San Bernardino County, California  
Dated: October 8, 2003  
Prepared by: SECOR International Incorporated  
For: GE Business Asset Funding

Based on a review of the Phase I ESA report, prepared by SECOR International Incorporated in October 2003, SECOR concluded that evidence of RECs or historical RECs was not identified for the site, and no further investigation was recommended. However, SECOR did identify several conditions of environmental concern including: underground storage tanks (USTs) at the site, use of petroleum impacted back-fill in a tank pit for a UST removal, on-site septic systems and the long history of wastewater and stormwater violations for the site.

According to SECOR's report four USTs were removed from the site including two 12,000-gallon USTs north of the mill, one 12,000-gallon UST east of the former vegetable oil processing area and one UST of unknown size west of the former truck shop building.

SECOR performed a file review at the San Bernardino County Fire Department (SBCFD) and found records that indicate the two 12,000-gallon USTs were removed in 1989 and soil sampling was conducted. A letter was issued on September 4, 1998 by the SBCFD which indicated "contamination remaining in the excavation is below that which is generally considered a problem and further investigation is not warranted". The records did not indicate where the two USTs were located; however, they may be the two USTs formerly located north of the mill. According to SECOR, Grisanti and Associates sampled the possible location of these 2 USTs (north of the mill) and did not identify detectable levels of the constituents of concern.

According to SECOR, soil sampling was conducted in July 2002 by Grisanti and Associates in the vicinity of a 12,000-gallon diesel UST located east of the former vegetable oil processing area. The soil sampling analytical results indicated that total petroleum hydrocarbons in the diesel range (TPH-d) concentrations of up to 4,500 parts per million (ppm) at 16 feet bgs were identified, and TPH-d was not reported above laboratory method detection limit at 20 feet bgs. The UST was removed in December 2002 and received regulatory closure from the SBCFD on January 8, 2003. The SBCFD files reviewed also included a letter from Tank Specialists of California which indicated that contaminated soil was used as backfill for the tank excavation and soil samples were not received until after the SBCFD issued the closure letter. The analytical results of stockpile used for backfill indicated that two areas of the sampled soil stockpiles contained concentrations of TPH-d at 230 ppm and 800 ppm. Tank Specialists of California requested closure of the site based on the impacted soil consisted of less than 50 tons of approximately 175

tons of backfill material, contaminations levels were below 1,000 ppm, the excavated area was paved over, and groundwater is greater than 300 feet bgs. The letter from Tank Specialists of California was dated January 9, 2003, a day after the SBCFD had granted closure for the tank.

According to SECOR, there was no documentation available in the SBCFD file that indicated a UST was located west of the former truck shop building; however, at the time of site reconnaissance, SECOR observed what appeared to have been a former fueling island in the vicinity of the suspected UST location. Grisanti and Associates sampled this area in 2002 and found TPH-d at a concentration of 11 ppm at 15 feet bgs and no detectable TPH-d at 20 feet bgs.

SECOR also found undated permit applications on file with SBCFD for two 4,000-gallon diesel USTs; however, information regarding the location, use or decommissioning of the USTs was not available. According to SECOR, a permit dated 1988 to operate five USTs with a hand note in the file dated February 25, 1988 indicated that “number of tanks was amended from five to four per signed-off job card”.

SECOR did not find information regarding size, construction or location of drain fields associated with the two on-site septic systems. They also concluded that the septic system located east of the former truck shop may have historically received truck wash-water. The Grisanti & Associates report was not provided to Terracon for review.

Based on a file reviewed with the Santa Ana Regional Water Quality Control Board (RWQCB), SECOR found that storm water discharge from the site exceeded the discharge permit benchmark values in 2001 for the following parameters: pH, total suspended solids, oil and grease, total organic carbon, total Kjeldahl nitrogen, biological oxygen demand and copper. In 2002, the storm water discharge exceeded the benchmark values for total suspended solids, oil and grease, biological oxygen demand and zinc. A violation was noted by the RWQCB on August 16, 2001 for the absence of a Storm Water Pollution Prevention Plan (SWPPP) and Storm Water Management Plan. According to an inspection report from the RWQCB based on an inspection conducted on August 16, 2001, it was noted that housekeeping at the site was poor and that boiler blow-down water was being used for dust control. In April 2002, the RWQCB received an anonymous complaint stating that employees at the site were routinely pouring used oil into a drain located outside the truck shop. The RWQCB re-inspected the site and was told that water from the truck wash area was washed into a filter and wash water was pumped from a sump into a 2,810-gallon AST. Employees at the site stated that the tank had never been emptied. The site was cited with several violations at that time including: truck wash water flowing into the parking lot, storm water exceedances in December 2001 and condensate from the boiler room at the mill discharging onto the ground.

- Phase I Environmental Site Assessment, Project Number 60097753  
5355 East Airport Drive, Ontario, San Bernardino County, California  
Dated: May 5, 2009

Prepared by: Terracon  
For: The Scoular Company

- Phase I Environmental Site Assessment Update, Project Number 60107702  
5355 East Airport Drive, Ontario, San Bernardino County, California  
Dated: January 19, 2010  
Prepared by: Terracon  
For: The Scoular Company

The Terracon Phase I ESA (PN: 60097753), dated May 5, 2009, and Phase I ESA Update (PN: 60107702), dated January 19, 2010, reported the site was improved with grain storage and feed mill buildings along with an office/warehouse, several storage sheds, office trailers, a truck shop building, paved driveway, parking lots, and limited landscaping. The site was reportedly occupied by The Scoular Company and subleased by J.D. Heiskell & Co., which has utilized the onsite equipment and infrastructure for livestock feed manufacturing operations since 2002. Based on a review of the findings of Terracon's ESA, RECs were not identified and recommendations were not provided.

## **4.0 RECORDS REVIEW**

Regulatory database information was provided by EDR, a contract information services company. The purpose of the records review was to identify RECs in connection with the site. Information in this section is subject to the accuracy of the data provided by the information services company and the date at which the information is updated, and the scope herein did not include confirmation of facilities listed as "unmappable" by regulatory databases.

In some of the following subsections, the words up-gradient, cross-gradient and down-gradient refer to the topographic gradient in relation to the site. As stated previously, the groundwater flow direction and the depth to shallow groundwater, if present, would likely vary depending upon seasonal variations in rainfall and the depth to the soil/bedrock interface. Without the benefit of on-site groundwater monitoring wells surveyed to a datum, groundwater depth and flow direction beneath the site cannot be directly ascertained.

### **4.1 Federal and State/Tribal Databases**

Listed below are the facility listings identified on federal and state/tribal databases within the ASTM-required search distances from the approximate site boundaries. Database definition, descriptions, and the database search report are included in Appendix D.

### Federal Databases

Database	Description	Radius (miles)	Listings
CERCLIS	Comprehensive Environmental Response, Compensation, & Liability Information System	0.5	0
CERCLIS / NFRAP	CERCLIS / No Further Remedial Action Planned	0.5	0
ERNS	Emergency Response Notification System	Site	0
IC / EC	Institutional Control/Engineering Control	Site	0
NPL	National Priorities List	1.0	0
NPL (Delisted)	National Priorities Delisted List	0.5	0
RCRA CORRACTS/ TSD	RCRA Corrective Action Activity	1.0	0
RCRA Generators	Resource Conservation and Recovery Act	Site and adjoining	1
RCRA Non-CORRACTS/ TSD	RCRA Non-Corrective Action Activity	0.5	2

### State/Tribal Databases

Database	Description	Radius (miles)	Listings
CA FID UST	Facility Index Database Underground Storage Tank	0.25	6
CALSITES	CalSites Database	1.0	0
CALSITES (AWP)	Active Annual Workplan Sites	1.0	0
CDL	Clandestine Drug Labs	Site	0
DRYCLEANERS	Dry Cleaners lists	0.25	0
EDR Hist Auto	EDR Exclusive Historical Automobile Station listings	0.25	0
EDR Hist Cleaners	EDR Exclusive Historical Dry Cleaners listings	0.25	0
ENVIROSTOR	The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further.	1.0	3
HAZNET	Facility and Manifest Database	Site	3
HIST CORTESE	Hazardous Waste & Substance Site List	0.5	3
HIST UST	Historical Underground Storage Tank	0.25	5
HWP	EnviroStor Permitted Facilities Listing	1.0	2
LUST	Leaking Underground Storage Tanks	0.5	3
SLIC	Spills, Leaks, Investigation and Cleanup list	0.5	2
SWEEPS UST	Statewide Environmental Evaluation Planning System Underground Storage Tank	0.25	8
SWF/LF	Solid Waste Facilities/Landfills	0.5	0

Database	Description	Radius (miles)	Listings
UST	Underground Storage Tank Facilities	Site and adjoining	1
VCP	Voluntary Cleanup Program	0.5	0

In addition to the above ASTM-required listings, Terracon reviewed other federal, state, local, and proprietary databases provided by the database firm. A list of the additional reviewed databases is included in the regulatory database report included in Appendix D.

The following table summarizes the site-specific information provided by the database and/or gathered by this office for identified facilities. Facilities are listed in order of proximity to the site. Additional discussion for selected facilities follows the summary table.

### Listed Facilities

Facility Name And Location	Estimated Distance / Direction/Gradient	Database Listings	Is a REC, CREC, or HREC to the Site
JD Heiskell Holdings LLC 5355 East Airport Drive	Site	CA FID UST, EMI, WDS, FINDS, ECHO, HAZNET	No, discussed below.
Coast Grain Inc.		EMI, UST, SWEEPS UST, NPDES, San Bern. Co. Permit, WDS, HAZNET	
John Powell		HAZNET	
Verizon Wireless-Inland MTSO 5351 East Airport Drive	Adjacent / West / Cross-gradient	AST, San Bern. Co. Permit	No, discussed below.
Union Carbide Corp. Linde Div 5705 & 5705 East Airport Drive	Adjacent / East / Cross-gradient	SWEEPS UST, SLIC, LUST, HIST UST, CA FID UST, EMI, HIST CORTESE	No, discussed below.
Praxair, Inc.		RCRA-SQG, LUST, NPDES, San Bern. Co. Permit, UST, AST, EMI	
Jack B Kelley Ontario Terminal		NPDES, San. Ber. Co. Permit, WDS	
Ontario Distribution Center 5600 East Airport Drive	120 feet / South / Down-gradient	SWEEPS UST, HIST UST, CA FID UST, EMI, NPDES, San Bern. Co. Permit, WDS	No, based on depth of groundwater (great



Facility Name And Location	Estimated Distance / Direction/Gradient	Database Listings	Is a REC, CREC, or HREC to the Site
K-Mart, Ontario Distribution Center		LUST, SWEEPS UST, HIST UST, HIST CORTESE, AST	than 200 feet bgs) and topographic gradient.
XPO Logistics Supply Chain 5200 East Airport Drive	120 feet / South / Down-gradient	San Bern. Co. Permit	No, based on depth of groundwater (great than 200 feet bgs) and topographic gradient.
Ameriwood Industries 5400 Shea Center Drive	160 feet / North/ Up-gradient	San Bern. Co. Permit	No, discussed below.
Emsler Tile 5300 Shea Center Drive	160 feet / North/ Up-gradient	San Bern. Co. Permit	No, discussed below.
Cooper Lighting 5200 Shea Center Drive Suite A	230 feet / Northwest / Up- to cross-gradient	San Bern. Co. Permit	No, based on a review of the listing and depth of groundwater (great than 200 feet bgs).
Gulf South Medical Supply 5200 Shea Center Drive Suite B	230 feet / Northwest / Up- to cross-gradient	San Bern. Co. Permit	No, based on a review of the listing and depth of groundwater (great than 200 feet bgs).
Five Brothers Inc. 5235 East Airport Drive	330 feet / West / Cross-gradient	CA FID UST, SWEEPS UST	No, based on distance and topographic gradient.
Koppers – Ontario 5101 East Airport Drive	470 feet / West / Cross-gradient	RESPONSE, ENVIROSTOR, DEED, San Bern. CO. Permit, CA BOND EXP. PLAN, SWEEPS UST, HIST UST, CA FID UST	No, based on distance and topographic gradient.
Koopers Company Inc. 12200 Airport Drive		ENVIROSTOR, HWP, CORRACTS, RCRA-TSDF, RCRA-SQG	
Chem Lab Products Inc. 5160 East Airport Drive	490 feet / West-southwest / Down- to cross-gradient	HIST UST, NPDES, CHMIRS, San Bern. Co. Permit, SWEEPS UST, WDS, CORRACTS, RCRA-TSDF, RCRA-SQG, SSTS	No, based on distance and topographic gradient.
Bio-Lab Inc.		CHMIRS, HWP	

JD Heiskell Holdings LLC / Coast Grain Inc. / John Powell (5355 East Airport Drive)

Selected federal and state environmental regulatory databases as well as responses from state and local regulatory agencies were reviewed. JD Heiskell Holdings LLC / Coast Grain Inc. / John Powell, located onsite, are listed in the regulatory database as a CA FID UST, EMI, WDS, FINDS, ECHO, HAZNET, UST, SWEEPS UST, NPDES, and San Bernardino County Permit facility. Based on a review of the HAZNET listings, the site generated hazardous waste categorized as tank bottom waste, other organic solids, waste oil and mixed oil, unspecified organic liquid mixture, unspecified aqueous solution, and asbestos containing material from 2002 through 2010. Based on a review of the EMI listing, the site was permitted for emissions with the South Coast Air Quality Management District from 1990 to 2009. Based on a review of the NPDES and WDS listing, the site is listed as an active permitted facility for industrial stormwater and continuous, or seasonal, waste water discharge that is under Waste Discharge Requirements. The site is listed as an NPDES / WDS facility that is considered a minor threat to water quality and either has a passive water treatment system or no treatment system as per the Regional Water Quality Control Board. No other pertinent information was provided in the NPDES and CA WDS database listings. No violations or reported releases are listed for the site. Based on site observations, the absence of violations or reported releases, and waste streams identified at the site, RECs for the site were not identified. Based on a review of the San Bern. Co. Permits listing, the site is currently permitted as a small quantity generator, hazardous material handler, and aboveground petroleum storage 1,320-10,000 gallon capacity facility. Inactive permits for the site were identified as hazardous material handler and waste generator with 0-10 employees, UST ownership/operating permit, and aboveground petroleum storage (SPCC).

Based on a review of the SWEEPS UST listing, the site is listed with five underground storage tanks (USTs) of unknown size and contents were listed in 1988. Information regarding the status of the USTs was not available in the databases searched by EDR. Based on records reviewed by Terracon at the San Bernardino County Fire Department (SBCFD) and information obtained from the San Bernardino County Environmental Health (refer to Section 4.2), four USTs were permitted to operate at the site in 1985 when Chino Grain and Milling occupied the site. Information regarding USTs at the site prior to 1985 was not available at the aforementioned agencies. Two of the four USTs present at the site in 1985 were identified in the records as one 12,000-gallon unleaded gasoline UST and one 12,000-gallon diesel UST. Information regarding the installation/removal or regulatory status of the other two USTs at the site in 1985 was not available in the records reviewed by Terracon. An additional 12,000-gallon UST was reportedly installed in 1988 and this UST was removed from the site in 2002. Records and regulatory closure documents pertaining to the three 12,000-gallon USTs were identified during Terracon records review (further discussed in Sections 3.7 and 4.2).

Based on a review of Phase I ESA report completed by SECOR on October 8, 2003 (discussed in Section 3.7), three 12,000-gallon diesel USTs, north of the mill building and east of the former vegetable oil processing area, were removed from the site in 1989 and in 2002, and regulatory closure was identified for the three 12,000-gallon USTs. Additionally, a fourth UST of unknown size reportedly located west of the truck stop was removed in 1986. Soil sampling was reportedly

conducted at the location of a former UST, and concentrations of petroleum hydrocarbons below the applicable screening levels were identified at 15 feet below grade surface (bgs), and TPH concentrations were not detected above laboratory detection method at 20 feet bgs. Residual impact of soils in the vicinity of the three USTs and reported location of former UST west of the truck repair shop were reported below Los Angeles Regional Water Quality Control Board Maximum Screening Levels for LUST sites where groundwater is at a depth of greater than 150 feet. Based on information reviewed by Terracon at the SBCFD and the 2003 SECOR ESA report documenting a subsurface investigation conducted by Grisanti and Associates at the site and regional depth of groundwater in the site vicinity, it is our opinion that the residual TPH concentrations remaining at the site appear to represent an HREC. The absence of information regarding the installation/removal or regulatory status of the two unknown USTs at the site in 1985 is a data gap; however, based on the reported Grisanti & Associates subsurface investigation (SECOR 2003) at historical suspect location of former UST(s) and anticipated depth to groundwater in the site vicinity, this data gap does not appear to represent a REC to the site.

Verizon Wireless – Inland MTSO (5351 East Airport Drive)

The Verizon Wireless – Inland MTSO, located to the adjacent west and topographically cross-gradient relative to the site, is listed in the regulatory database as an Aboveground Storage Tank (AST) and San Bern. Co. Permit facility. Based on a review of the listings, this facility is currently permitted as an aboveground petroleum storage 1,320-10,000 gallon capacity facility and handler of hazardous material. The facility operates a 10,444-gallon AST. No violations or reported releases were noted. Based on the absence of reported releases or violations above ground storage, and anticipated depth to groundwater in the site vicinity, the Verizon Wireless – Inland MTSO listing does not constitute an REC to the site.

Union Carbide Corp. Linde Div / Praxair, Inc. / Jack B Kelley Ontario Terminal (5705 & 5705 East Airport Drive)

Union Carbide Corp. Linde Div / Praxair, Inc. / Jack B Kelley Ontario Terminal, located to the adjacent east and topographically cross-gradient relative to the site, is listed in the regulatory database as a SWEEPS UST, SLIC, LUST, HIST UST, CA FID UST, EMI, HIST CORTESE, RCRA-SQG, NPDES, San Bern. Co. Permit, UST, AST, and WDS facility. Based on a review of the San Bern. Co. Permits listing, the facility is currently permitted as an aboveground petroleum storage 1,320-10,000 gallon capacity facility, risk management permit, UST ownership/operator, small quantity generator, and hazardous materials handler. Based on a review of the RCRA-SQG and HAZNET listings, waste generated at the facility is identified as chromium, ignitable waste, liquids with, reactive waste, corrosive waste, non-halogenated solvents, halogenated organic compounds, and aqueous solution with organic residues. Based on a review of the HIST UST listing, this facility is listed with 18 USTs ranging in size from 200 to 12,000 gallons containing product (diesel fuel) or waste oil, installed between 1957 and 1980. Based on a review of the LUST and SLIC listings, this facility is listed with a solvent release to soil on April 23, 1987. The case was closed by the San Bernardino County Lead Oversight Program on September 7, 1988. Based on the environmental media affected (soil only) and regulatory closure status of the

LUST/SLIC case, the depth to groundwater at the site (greater than 200 feet bgs), and topographic gradient relative to the site, listings for this facility do not constitute a REC to the site.

Ameriwood Industries (5400 Shea Center Drive)

Ameriwood Industries, located approximately 160 feet to the north and topographically up-gradient relative to the site, is listed in the regulatory database as a San Bern. Co. Permit facility. Based on a review of the listing, this facility is currently permitted as a small quantity generator and hazardous material handler. Based on the absence of reported releases or violations, this facility does not constitute a REC to the site.

Emser Tile (5300 Shea Center Drive)

Emser Tile, located approximately 160 feet to the north and topographically up-gradient relative to the site, is listed in the regulatory database as a San Bern. Co. Permit facility. Based on a review of the listing, this facility is currently permitted as a hazardous material handler. Based on the absence of reported releases or violations, this facility does not constitute a REC to the site.

The remaining facilities listed in the database report do not appear to represent RECs to the site at this time based upon regulatory status, apparent topographic gradient, and/or distance from the site.

Unmapped facilities are those that do not contain sufficient address or location information to evaluate the facility listing locations relative to the site. The report listed 11 facilities in the unmapped section. Determining the location of unmapped facilities is beyond the scope of this assessment; however, none of these facilities were identified as the site or adjacent properties. These facilities are listed in the database report in Appendix D.

**4.2 Local Agency Inquiries**

Agency Contacted/ Contact Method	Response
San Bernardino County Fire Department – Hazardous Materials Division / By fax 909-386-8460	On April 26, 2016, Terracon reviewed records at the agency pertaining to the site. Based on the records reviewed, Coast Grain Inc. was permitted as hazardous waste generator, hazardous material handler, and underground storage tank operator from 1986 through 2002. The Scoular Company was permitted as a hazardous material handler in 2010. George Verhoeven Grain Inc. is currently permitted as a hazardous materials handler, small quantity generator, and aboveground petroleum storage 1,320-10,000 gallon capacity facility. The records pertaining to the historical USTs on the site are further discussed below.
San Bernardino County Department of Public Health – Division of Environmental Health /	On April 22, 2016, Terracon received a response from the agency indicating records were not found for the site. The agency further indicated they retain records for seven years. Any records the

Agency Contacted/ Contact Method	Response
By fax 909-387-4323	agency may have had pertaining to the historical USTs at the site are no longer available.
Department of Toxic Substances Control / By e-mail <a href="mailto:pubreqact@dtsc.ca.gov">pubreqact@dtsc.ca.gov</a>	On March 24, 2016, Terracon received a response from the agency indicating Coast Grain In., John Powell, and JD Heiskell Holdings LCC are listed as past permitted generators of hazardous waste at the site. These generators were further discussed in Section 4.1.
Ontario City Clerk / By email <a href="mailto:recordsmanagement@ontarioca.gov">recordsmanagement@ontarioca.gov</a>	On March 29, 2016, Terracon received building permits for the site from the agency. Based on a review of the records, the mill portion of the site had undergone periodic improvements between the late-1980s and late-1990s. Based on a review of the records provided, RECs were not identified.
Santa Ana Regional Water Quality Control Board / By e-mail <a href="mailto:FileReview8@waterboards.ca.gov">FileReview8@waterboards.ca.gov</a>	<p>On March 24, 2016, Terracon conducted a file review for the site. The following pertinent environmental records were reviewed:</p> <ul style="list-style-type: none"> <li>• A letter issued by the SARWQCB for the Approval of a Preliminary Work Plan for Investigation of the Boiler Brine Disposal Pond located at Coast Grain Company 5355 E. Airport Drive, Ontario, California, dated July 8, 1997.</li> <li>• A letter issued by the SARWQCB for Additional Soil Characterization Adjacent to the Boiler Brine Disposal Pond located at Coast Grain Company 5355 E. Airport Drive, Ontario, California, dated October 9, 1997.</li> <li>• An Environmental Soils Investigation Report for Boiler Brine Water Pond at the Coast Grain Company at 5355 E. Airport Drive, Ontario, California, completed by RMA Group, dated November 3, 1997;</li> <li>• A letter issued by the SARWQCB for Approval of Cover Design for the Boiler Brine Disposal Pond and Improvements to the Sump Area located at Coast Grain Company 5355 E. Airport Drive, Ontario, California, dated March 17, 1998.</li> <li>• A General Earthwork &amp; Grading Specifications work plan for the boiler brine pond project completed by RMA group, dated March 10, 1998.</li> <li>• Various letters of report addendums and laboratory data from Coast Grain Company, Union Pacific Railroad</li> </ul>

Agency Contacted/ Contact Method	Response
	<p>Company and RMA Group, dated from August 1998 to August 1999, in reference to soil and laboratory reports and project closure proposals related to the soils investigation report completed by RMA Group in November 1997.</p> <ul style="list-style-type: none"> <li>A letter issued by the SARWQCB for Approval of Closure Report for the Boiler Brine Disposal Pond and Improvements to the Sump Area located at Coast Grain Company 5355 E. Airport Drive, Ontario, California, dated September 24, 1999.</li> </ul> <p>A summary of the records reviewed is included below.</p>
<p>South Coast Air Quality Management District / On-line Facility INformation Detail (FIND) database</p>	<p>Terracon conducted an online search of the agency's database for site listings. Based on the search results, Chino Grain &amp; Milling Inc., Coast Grain Company, George Verhoever Grain, Inc., JD Heiskell Holdings LLC, The Dairyfeers Group, Coast Grain, and Unicorn, LLC were identified permitted facilities located at the site. The Scoular Co. is currently permitted to operate a corn receiving, storage, and load out system and George Verhoeven Grain, Inc. is currently permitted to operate boilers, load-out station, rolling mill system, barley rolling system, grain rail/truck receiving and storage system, animal feed pelletizing system, corn rolling system, and air pollution control systems (bag houses and cyclone separators). Based on a review of the records provided, RECs were not identified.</p>

San Bernardino County Fire Department – Hazardous Materials Division

Below is a table summarizing the records reviewed pertaining to the historical USTs on the site:

Type	Date	Detail
<p>Application for Permit to Operate UST</p>	<p>Not listed</p>	<p>One 10,000-gallon unleaded gasoline UST (1 North), one 10,000-gallon diesel UST (2 South, and two 4,000-gallon diesel USTs (3 East and 4 West) were identified on an application for Coast Grain Milling. Further information regarding the USTs is not reported.</p>
<p>Hazardous Waste Generator Permit Application/Renewal</p>	<p>August 19, 1985</p>	<p>Chino Grain and Milling reported operating four USTs at the site.</p>

Type	Date	Detail
Hazardous Waste & Toxic Control Section APBS Data Input Fact Sheet	March 18, 1986	Chino Grain and Milling is permitted to operate four USTs at the site.
Renewal Application for Health Permit Inspection and Health Services	May 12, 1986	Coast Grain Milling is identified as the new operator of the site and 4 USTs.
Hazardous Waste Generator Permit Application/Renewal	May 19, 1987	Coast Grain Company reported two USTs at the site.
Underground Tank Installation Application	January 7, 1988	Coast Grain applied to install one 12,000-gallon diesel UST at the site.
Job Card – Construction of Underground Storage Facility	February 16, 1988	One 12,000-gallon diesel UST was installed at the site.
Environmental Health Services Department Permit – Underground Storage Tanks	June 30, 1988 (expiration)	Coast Grain Milling was permitted to operate four USTs at the site.
Underground Storage Tank Program Tank Permit Application Information	June 16, 1989	Coast Grain Company reported the site operated three USTs and applied for removal of one 12,000-gallon unleaded gasoline UST and one 12,000-gallon diesel UST.
Job Card – Abandonment of Underground Storage Facility	July 19, 1989	Two 12,000-gallon UST were removed from the site and soil samples were collected beneath the tank holds.
Renewal Application for Health Permit Inspection and Health Services	August 2, 1989	Coast Grain Inc. reported one UST at the site.
Letter from Coast Grain Company to the County of San Bernardino Department of Environmental Services Department of Underground Storage Tanks	August 24, 1989	Coast Grain Company indicated two USTs were removed from the site in July 1989 and one diesel UST remains at the site.
Environmental Health Services Department Permit – Underground Storage Tanks	August 31, 1989 (expiration)	Coast Grain Inc. was permitted to operate five USTs at the site.
Environmental Health Services Department Permit – Underground Storage Tanks	August 31, 1990 – August 31, 2002 (expiration)	Coast Grain Inc. was permitted to operate one UST at the site.

Type	Date	Detail
Letter from Coast Grain Company to San Bernardino County Fire Department - Hazardous Materials Division	September 4, 1998	Coast Grain Company indicated application for the removal of two 4,000-gallon USTs were found at the site. Terracon could not find copies of the referenced applications in the files reviewed.
Letter from San Bernardino County Fire Department - Hazardous Materials Division, Subject: Removal of Two Underground Storage Tanks at 5355 Airport, Ontario	September 4, 1998	The department reviewed the analytical results from the soil sampling conducted after the tank removal in July 1989. The results indicated contamination remained in the excavated area; however, the concentrations were below the threshold of concern. The department indicated further investigation was not warranted.
Notice of Violation	December 15, 1998	Based on observation made during an inspections, the fire department found the site didn't have containment for the UST dispenser.
Underground Storage Tank Facility – Upgrade Compliance Certificate	December 18, 1998	The site received the upgrade compliance certificate for the one UST.
Enviro-Chem, Inc. Laboratory Report	March 8, 1999	During the upgrades to the dispenser, a soil sample was collected approximately 3.5 feet beneath the UST dispenser. 530 mg/kg total petroleum hydrocarbons – diesel range (TPH-d), 0.080 mg/kg toluene, 0.066 mg/kg ethylbenzene, and 0.416 mg/kg total xylenes were the reported concentrations in the samples collected.
Letter from San Bernardino County Fire Department - Hazardous Materials Division, Subject: Dispenser Sampling in Conjunction with 1998 Upgrades at 5355 Airport, Ontario	March 29, 1999	The department reviewed the analytical data for the March 1999 sampling event and concluded the extent of contamination indicated no further investigation was warranted.



Type	Date	Detail
Underground Storage Tank Inspection Report	September 26, 2001	The department noted a violation for failing to properly monitor UST system. Installation of leak detectors and lengthening of monitoring probes for the UST system was required.
Underground Storage Tank Inspection Report	November 20, 2001	The department noted a mechanical leak detector was installed and tested at the site. Violations were not identified.
Underground Storage Tank Removal Inspection Form	December 5, 2002	One 12,000-gallon diesel UST was removed from the site. Soil samples were collected beneath the tank hold and from the stock piled soil.
Soil Sampling Following the Removal of an Underground Storage Tank – Coast Grain Company; prepared by Advanced GeoEnvironmental, Inc. (AGE)	December 18, 2002	Based on the analytical results for the December 5, 2002 soil sampling event, concentrations of TPH-d (230 mg/kg and 800 mg/kg), benzene (0.035 mg/kg), and MTBE (0.018 mg/kg) were reported for samples collected from the stock piled soil. AGE indicated the stock piled soil was used as backfill. AGE recommended closure of the site based on concentrations detected and depth of ground water (approximately 305 feet bgs).
Letter from San Bernardino County Fire Department - Hazardous Materials Division, Subject: Removal of One Underground Storage Tank at Coast Grain Inc.	January 8, 2003	The department reviewed the analytical data for the December 2002 sampling event and concluded no further investigation was warranted.

The above-listed records are further discussed in Section 4.1.

Santa Ana Regional Water Quality Control Board

Based on a review of the above referenced historical documents at the SARWQCB, a former boiler brine disposal pond (brine pond) that was previously located north of the boiler room on site was used for disposal of boiler blow-down water until 1997. The SARWQCB's primary objective for water quality protection on the site was to prevent infiltration of rain through the salt-

contaminated soil and into the groundwater beneath the former pond. During the subsequent limited subsurface soil investigation of the brine pond area, completed by RMA Group in October 1997, several exploratory soil borings were advanced to maximum depth of approximately 40 feet below the surface. Soil samples were collected at various depths in each boring and each sample was analyzed for pH and electrical conductivity (Ec). RMA Group's subsurface investigation indicated that soils in and adjacent to the former brine pond contained elevated levels of salinity and conductivity to a depth range of approximate 10 to 15 feet below grade. Laboratory analytical data for the previous investigation indicated that soils in and in the vicinity of the former brine pond contained 0.26 to 13.0 micromhos per centimeter (mmhos/cm) for conductivity and 6.6 to 7.8 for pH. According to the previous investigation report, the top 2 feet of soil within the pond contained the highest levels of Ec and that high conductivity in the soil represented a "severe potential for corrosivity toward metal pipes placed in direct contact with the soil." According to the previous RMA Group report, the elevated levels of Ec in soil exceeded the acceptable SARWQCB limit of 2.0 mmhos/cm and required remediation.

In early 1998, the SARWQCB approved a remediation plan to excavate and remove soil with high concentrations of salt from the brine pond area. The soil remediation plan commenced in August 1998, and approximately 7,500 cubic yards of brine salt-contaminated soil were excavated from the former brine pond excavation area (reported to be 60' x 160' in area). Prior to being backfilled and compacted with a layer of native sand followed by uncontaminated fill soil, the excavation was lined with 40-mil high density polyethylene (HDPE) plastic sheeting. Salt contaminated soils removed from the excavation were then disposed of at an approved landfill. On September 24, 1999, the SARWQCB issued an approval letter for the remediation project closure report and considered the former brine pond closure project complete. Based on the above information and the regulatory agency case-closed status, the former brine pond remediation is not considered a REC to the site at this time. A copy of the SARWQCB closure letter and a letter from the Union Pacific Railroad Company for the former brine disposal pond project is included in Appendix C.

## **5.0 SITE RECONNAISSANCE**

### **5.1 General Site Information**

Information contained in this section is based on a visual reconnaissance conducted while walking through the site and the accessible interior areas of structures, if any, located on the site. Exhibit 2 in Appendix A is a Site Diagram of the site. Photo documentation of the site at the time of the visual reconnaissance is provided in Appendix B. Credentials of the individuals planning and conducting the site visit are included in Appendix E.

### General Site Information

Site Reconnaissance				
Field Personnel	Melanie J. Seydel			
Reconnaissance Date	March 24, 2016			
Weather Conditions	Sunny, 65° F			
Site Contact/Title	Mr. Jeff Caskey / Manager			
Building Description				
Building Identification	Building Use	Approx. Construction Date	Number of Stories	Approx. Size (ft <sup>2</sup> )
Office / warehouse	Office / storage	1970s	1	19,700
Truck repair shop	Truck maintenance / storage	1970s	1	6,600
Site Utilities				
<i>Electricity</i>	Southern California Edison			
<i>Drinking Water</i>	City of Ontario			
<i>Wastewater</i>	Septic tanks			
<i>Natural Gas</i>	Southern California Gas Company			

### 5.2 Overview of Current Site Occupants

The site is located at 5355 East Airport Drive in the City of Ontario, San Bernardino, California and consist of an approximately 13.37-acre tract of land developed with grain storage and feed mill buildings along with an office/warehouse, several storage sheds, office trailers and a truck shop building. The site also has paved driveway and parking lots along with limited landscaping. At the time of the site reconnaissance, the site was occupied by The Scoular Company and George Verhoeven Grain Inc., which leases the east portion of the site.

### 5.3 Overview of Current Site Operations

The site operates primarily as a grain processing facility. Raw material, including corn and barley, are delivered to the site by truck or rail. The raw material is weighed and unloaded into the storage silos. The raw material is steamed, rolled, and flattened into the finished product and stored on site until delivery.

### 5.4 Site Observations

The following table summarizes site observations and interviews. Affirmative responses (designated by an “X”) are discussed in more detail following the table.

### Site Characteristics

Category	Item or Feature	Observed or Identified
Site Operations, Processes, and Equipment	Emergency generators	
	Elevators	
	Air compressors	X
	Hydraulic lifts	
	Dry cleaning	
	Photo processing	
	Ventilation hoods and/or incinerators	
	Waste treatment systems and/or water treatment systems	
	Heating and/or cooling systems	
	Paint booths	
	Sub-grade mechanic pits	
	Wash-down areas or carwashes	
	Vehicle repair or maintenance	
	Pesticide/herbicide production or storage	
	Printing operations	
	Metal finishing (e.g., electroplating, chrome plating, galvanizing, etc.)	
	Salvage operations	
	Oil, gas or mineral production	
Other processes or equipment	X	
Aboveground Chemical or Waste Storage	Aboveground storage tanks	X
	Drums, barrels and/or containers ≥ 5 gallons	X
	MSDS or SDS	
Underground Chemical or Waste Storage, Drainage or Collection Systems	Underground storage tanks or ancillary UST equipment	
	Sumps, cisterns, French drains, catch basins and/or dry wells	X
	Grease traps	
	Septic tanks and/or leach fields	
	Oil/water separators, clarifiers, sand traps, triple traps, interceptors	
	Pipeline markers	
	Interior floor drains	
Electrical Transformers/PCBs	Transformers and/or capacitors	
	Other equipment	

Category	Item or Feature	Observed or Identified
Releases or Potential Releases	Stressed vegetation	
	Stained soil	
	Stained pavement or similar surface	X
	Leachate and/or waste seeps	
	Trash, debris and/or other waste materials	X
	Dumping or disposal areas	
	Construction/demolition debris and/or dumped fill dirt	
	Surface water discoloration, odor, sheen, and/or free floating product	
	Strong, pungent or noxious odors	
	Exterior pipe discharges and/or other effluent discharges	
Other Notable Site Features	Surface water bodies	
	Quarries or pits	
	Wastewater lagoons	
	Wells	

## Site Operations, Processes, and Equipment

### Air compressors

During the site reconnaissance, one air compressor was observed in the northern vicinity of the large storage silos on the western portion of the site and one air compressor was observed in the warehouse on the southeastern portion of the site. No evidence of surficial staining or releases was observed on the concrete flooring surrounding the units, and no indication of a release associated with the units was observed at the time of the site reconnaissance. Based on the absence of an observed release, the air compressor do not represent a REC to the site.

### Other processes or equipment

A rail car unloading system was observed at the north end of the site. The system consists of a hydraulic powered, rail mounted “screw driver” that unscrews hatches located on the underbelly of the rail cars. Once the hatches open, the contents of the rail car discharge into auger conveyance system located beneath the railroad tracks. The augers continually rotate and carry the rail car contents south towards the mill and silos.

## Aboveground Chemical or Waste Storage

### Aboveground storage tanks

During the site reconnaissance, the following containers were observed:

Approximate Quantity	Approximate Capacity	Contents	Location
1	1,000	Sump discharge	Exterior; truck wash area
1	2,000	Water	Exterior; truck wash area
1	500	Diesel	Exterior; east of office/warehouse building
2	250	Hydraulic oil	Exterior; east of office/warehouse building
1	250	Empty	Interior; warehouse
1	500	Propane	Exterior; north of office building
1	2,500	Water	Exterior; north of the boiler
6	varies	Molasses and fats	Exterior; south of mill

The above-listed ASTs were observed stored on concrete floor and/or on secondary containment. Staining was observed on and near the ASTs located on the eastern exterior portion of the office/warehouse building and appeared to be *di minimus* in nature. Staining or evidence of a release was not observed on the remainder of ASTs or on the concrete in the vicinity of the ASTs. Based on site observations, the above-listed ASTs do not constitute a REC.

Drums, barrels, and/or containers ≥ 5 gallons

During the site reconnaissance, the following containers were observed:

Approximate Quantity	Approximate Capacity	Contents	Location
6	30	Lubricant	Mill
4	275	Flake-aide	Mill
1	275	unknown	Truck wash area
3	55	Used oil	Truck repair shop
1	55	Hydraulic oil	Truck repair shop
1	275	Diesel Exhaust Fluid	Truck repair shop
6	55	Empty	Truck repair shop
4	55	Motor oil	Truck repair shop
9	5	Transmission fluid	Truck repair shop
1	30	Parts washer	Truck repair shop
2	55	Motor oil	Warehouse
10	5	Motor oil	Warehouse
15	5	Hydraulic oil	Warehouse
2	55	Used oil	Warehouse

The above-listed drums and containers were observed on stored concrete floor and/or on secondary containment. Staining or evidence of a release was not observed on the drums and

containers or on the concrete in the vicinity of drums and containers. The used oil is disposed of through Asbury Environmental. Based on site observations, the above-listed drums and containers do not constitute a REC.

## **Underground Chemical or Waste Storage, Drainage, or Collection Systems**

### Sumps, cisterns, catch basins, and/or dry wells

A sump was observed north of the truck shop building at the time of the site reconnaissance. According to Mr. Caskey, the sump collects water from the truck wash area. The collected water is then pumped into the wash water AST located directly east of the pump which is emptied as needed. The sump does not constitute a REC.

## **Electrical Transformers/PCBs**

### Pad or pole mounted transformers and/or capacitors

During the site reconnaissance, two pad-mounted transformers, owned and serviced by SCE, was observed: one located north of the large storage silos in the western portion of the site, and one west of the molasses and fat storage area. Based on site observations, both transformers have “No PCB” stickers.

SCE maintains responsibility for the transformers, and if the transformers were “PCB contaminated”, the utility company is not required to replace the transformer fluids until a release is identified. However, no evidence of current or prior release was observed in the vicinity of the electrical equipment during the site reconnaissance. Based on the absence of an observed release, environmental concerns associated with the transformers were not identified for the site at this time.

## **Releases or Potential Releases**

### Trash, debris and/or other waste materials

Three solid waste disposal dumpsters, serviced by City of Ontario, were observed on the central portion and southern portion of the site. Staining, noxious odors or hazardous waste disposal was not observed in the vicinity of the on-site dumpsters.

## **6.0 ADJOINING PROPERTY RECONNAISSANCE**

Visual observations of adjoining properties (from site boundaries) are summarized below.

### **Adjoining Properties**

<b>Direction</b>	<b>Description</b>
North	Railroad tracks abut the site to the north followed by an industrial building.
East	The property to the adjacent east of the site consist of Praxair.

Direction	Description
South	Airport Drive abuts the site to the south followed by K-Mart Distribution Center.
West	The property to the adjacent west of the site consist of Verizon Wireless.

RECs were not observed with the adjoining properties.

## 7.0 ADDITIONAL SERVICES

Per the agreed scope of services specified in the proposal, additional services (e.g. asbestos sampling, lead-based paint sampling, wetlands evaluation, lead in drinking water testing, radon testing, vapor encroachment screening, etc.) were not conducted.



## 8.0 DECLARATION

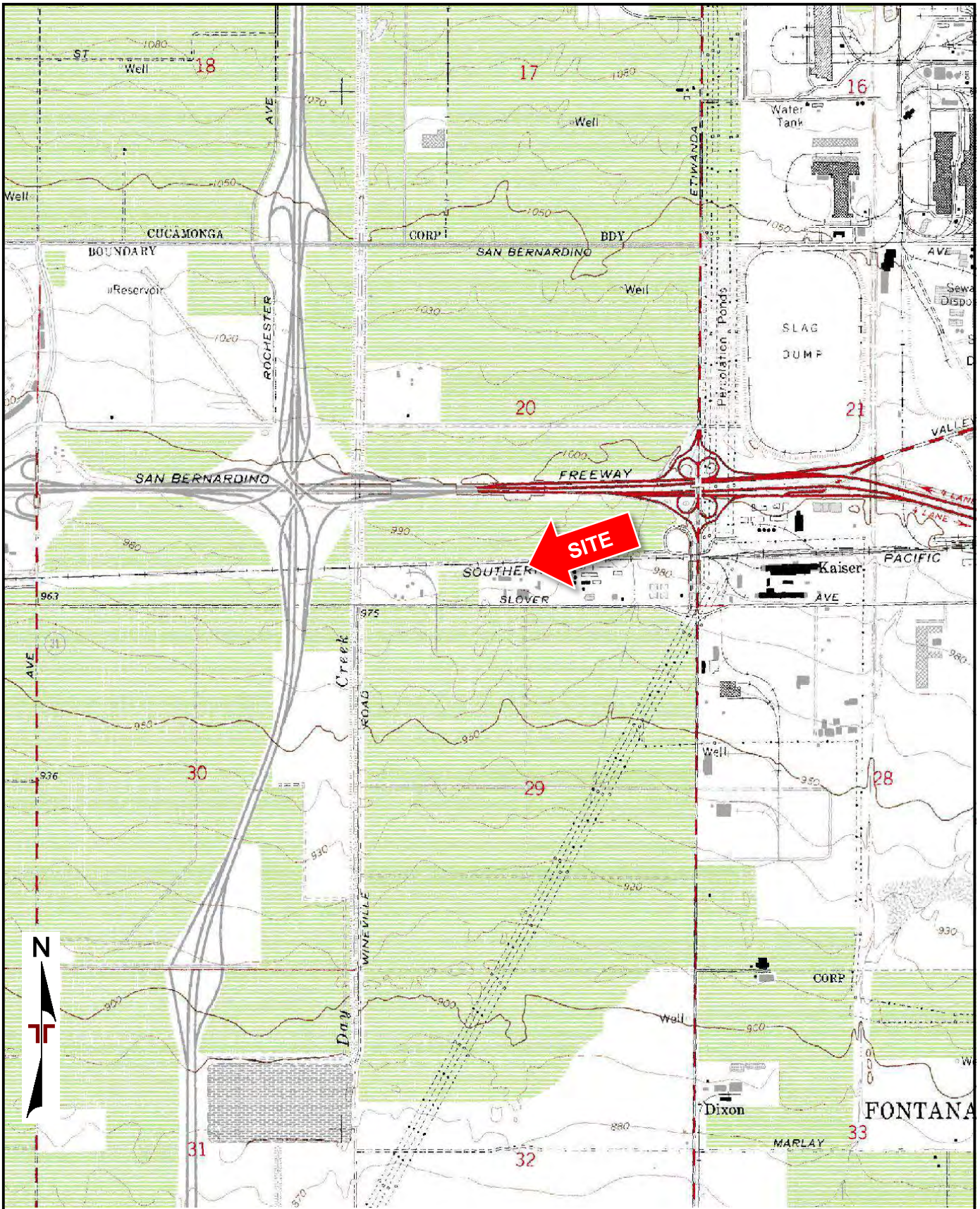
I, Islam (Sami) R. Noaman, declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in Section 312.10 of 40 CFR 312; and I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the site. I have developed and performed the All Appropriate Inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



---

Islam (Sami) R. Noaman  
Environmental Professional

**APPENDIX A**  
**EXHIBIT 1 – TOPOGRAPHIC MAP**  
**EXHIBIT 2 – SITE DIAGRAM**



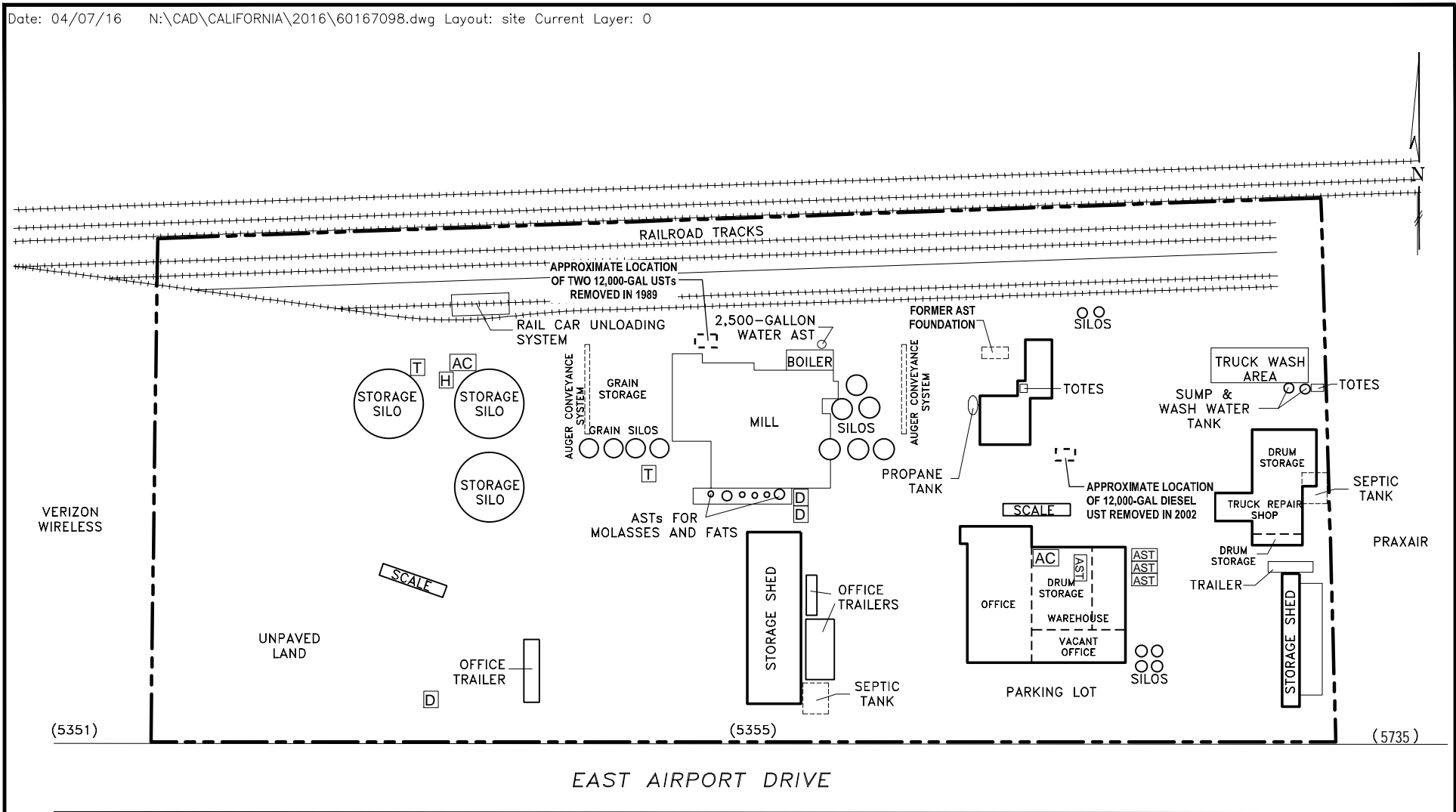
TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY  
 QUADRANGLES INCLUDE: GUASTI, CA (1/1/1981).

Project Manager:	MJS
Drawn by:	MJS
Checked by:	IRN
Approved by:	IRN
Project No.	60167098
Scale:	1"=2,000'
File Name:	N/A
Date:	APR 2016

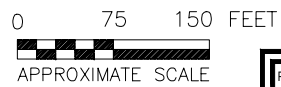
**Terracon**  
 2817 MCGAW AVENUE  
 IRVINE, CALIFORNIA 92614-5835

TOPOGRAPHIC MAP  
 SCOLAR GRAIN FACILITY  
 5355 EAST AIRPORT DRIVE  
 ONTARIO, SAN BERNARDINO COUNTY, CALIFORNIA 91761

EXHIBIT
1



- LEGEND:**
- T TRANSFORMER
  - D DUMPSTER
  - AC AIR COMPRESSOR
  - H HYDRAULIC OIL TANK
  - AST ABOVEGROUND STORAGE TANK



*THIS DRAWING SHOULD NOT BE USED SEPARATELY FROM ORIGINAL REPORT.*

Project Mngr:	MS	Project No.	60167098
Drawn By:	JJD	Scale:	AS SHOWN
Checked By:	MS	Date:	04/07/16
Approved By:	CAP		

**Terracon**  
Consulting Engineers and Scientists

2817 McGAW AVENUE IRVINE, CALIFORNIA 92614  
PH. (949) 261-0051 FAX. (949) 261-6110

**SITE DIAGRAM**

SCOULAR GRAIN FACILITY  
5355 EAST AIRPORT DRIVE  
ONTARIO, SAN BERNARDINO COUNTY, CALIFORNIA 91761

EXHIBIT  
**2**

**APPENDIX B  
SITE PHOTOGRAPHS**



**Photo #1** View of the mill located on the central portion of the site.



**Photo #2** View of the large storage silos located on the western portion of the site.



**Photo #3** View of the office/warehouse building located on the southeastern portion of the site.



**Photo #4** View of the truck repair shop building located on the eastern portion of the site.



**Photo #5** View of the storage shed located on the eastern portion of the site.



**Photo #6** View of the storage shed located on the central portion of the site.



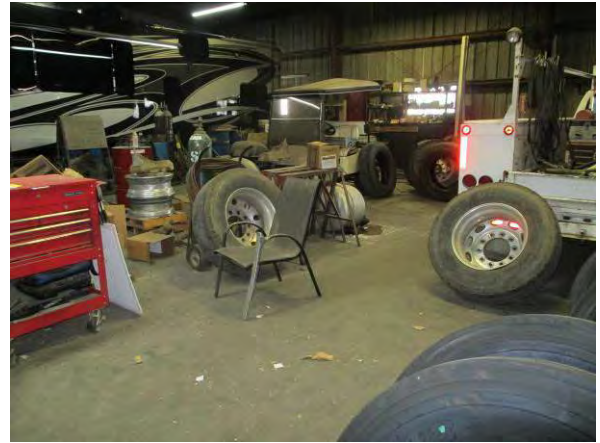
**Photo #7** View of the office trailer located on the southern portion of the site.



**Photo #8** Typical interior view of the office.



**Photo #9** Typical interior view of the warehouse.



**Photo #10** Typical interior view of the truck repair shop.



**Photo #11** Typical interior view of the boiler area.



**Photo #12** Typical view of the grain storage area.



**Photo #13** View of the air compressor located in the warehouse.



**Photo #14** View of the drum and container storage located in the warehouse.



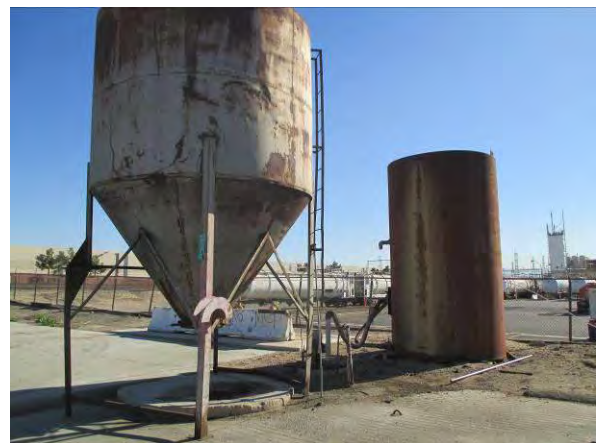
**Photo #15** View of three ASTs located on the exterior eastern side of the office/warehouse building.



**Photo #16** View of the drum storage area located in the truck repair shop.



**Photo #17** View of the 275-gallon tote of diesel exhaust fluid located in the truck repair shop.



**Photo #18** View of the sump and waste water storage for the former truck wash-down area.





**Photo #19** View of the propane AST located to the east of the mill.



**Photo #20** View of the 275-gallon totes of Flake-Aide.



**Photo #21** View of the pad-mounted transformer.



**Photo #22** View of the solid waste disposal dumpsters.



**Photo #23** View of the ASTs containing molasses and fats.



**Photo #24** View of the 30-gallon drums of lubricant located in the mill.



**Photo #25** View of the railroad tracks located to the adjacent north of the site.



**Photo #26** View of Praxair located to the adjacent east of the site.



**Photo #27** View of Airport Drive and the K-Mart Distribution Center located to the adjacent south of the site.



**Photo #28** View of Verizon Wireless located to the adjacent west of the site.

**Photo #29**

**Photo #30**

**APPENDIX C**  
**HISTORICAL DOCUMENTATION AND USER QUESTIONNAIRE**

**ASTM E1527-13 USER QUESTIONNAIRE**

**Proposal No: P60167098**

In order to qualify for one of the Landowner Liability Protections (LLPs) offered by the Small Business Relief and Brownfields Revitalization Act of 2001 (the "Brownfields Amendments"), the user must respond to the following questions. Failure to provide this information to the environmental professional may result in significant data gaps, which may limit our ability to identify recognized environmental conditions resulting in a determination that "all appropriate inquiry" is not complete. This form represents a type of interview and as such, the user has an obligation to answer all questions in good faith, to the extent of their actual knowledge.

Site Name: Scoular Grain Facility  
Site Address: 5355 E Airport Drive  
Ontario, CA

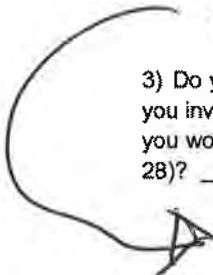
1) Did a search of recorded land title records (or judicial records where appropriate) identify any environmental liens filed or recorded against the property under federal, tribal, state, or local law (40 CFR 312.25)?  No  Yes If yes, please explain.

2) Did a search of recorded land title records (or judicial records where appropriate) identify any activity and use limitations (AULs), such as engineering controls, land use restrictions, or institutional controls that are in place at the property and/or have been filed or recorded against the property under federal, tribal, state, or local law (40 CFR 312.26)?  No  Yes If yes, please explain.

*We Constructed the Grain*

*Elevator*

3) Do you have any specialized knowledge or experience related to the site or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the site or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business (40 CFR 312-28)?  No  Yes If yes, please explain.



4) Do you have actual knowledge of a lower purchase price because contamination is known or believed to be present at the site (40 CFR 312.29)?  No  Yes

5) Are you aware of commonly known or reasonably ascertainable information about the site that would help the environmental professional to identify conditions indicative of releases or threatened releases (40 CFR 312.30)?  No  Yes If yes, please explain.

6) Based on your knowledge and experience related to the site, are there any obvious indicators that point to the presence or likely presence of contamination at the site (40 CFR 312.31)?  No  Yes If yes, please explain.

Please return this form with the signed and completed MSA Task Order.

**Responsive ■ Resourceful ■ Reliable**

**ASTM E1527-13 USER QUESTIONNAIRE**

Proposal No: P60167098

**Request for Information and Documentation**

In addition to the specific questions outlined above, the user is requested to provide the following information and documentation, as available. ASTM requires that this information, if available, be provided to the environmental professional prior to the site visit.

Item Supplied "X"	Not Applicable, Not Available or Not Known "X"	Item Requested (See Proposal)	Contacts/Comments or Indicate Attachment
X		Point of Contact for Access	JEFF CASKEY MGR. Name/Phone: 909-340-9566 (O) 801-389-0430 (C)
X		Current Site Owner THE SCOLLAR Co.	Name/Phone: ✓
X		Current Facility Operator ✓	Name/Phone: ✓
	X	Contacts for Prior Owners N/A	Name/Phone: /
	X	Contacts for Prior Occupants N/A	Name/Phone: /
X		Access Restrictions	CONTACT JEFF CASKEY
X		Notification of Special Requirements Regarding Confidentiality	N/A
X		Legal Description and Diagram / Survey of Site	SCOLLAR WILL PROVIDE.
	X	Chain of Title with Grantor/Grantee Summary (back to 1940 or first developed use)	
X		Reasons for Conducting ESA	DETERMINE VALUE

Please return this form with the signed and completed MSA Task Order.  
 Responsive ■ Resourceful ■ Reliable

**ASTM E1527-13 USER QUESTIONNAIRE**

**Proposal No: P60167098**

**Helpful Documents Checklist**

Pursuant to ASTM E1527-13 § 10.8, do you know whether any of the following documents exist related to the subject property and, if so, whether copies can and will be provided to the environmental professional? Check all that apply.

- Environmental site assessment reports
- Environmental compliance audit reports
- Geotechnical studies
- Reports regarding hydrogeologic conditions on the property or surrounding area
- Registrations for above or underground storage tanks
- Notices or other correspondence from any governmental agency relating to past or current violations of environmental laws with respect to the property or relating to environmental liens encumbering the property
- Registrations for underground injection systems
- Environmental permits/plans, solid waste permits, hazardous waste disposal permits, wastewater permits, NPDES permits, underground injection permits, SPCC plans

Tom DiGiornio  
Name (Authorized Client Representative)

V.P.  
Title

Tom DiGiornio V.P.  
Signature

March 15, 2016  
Date

Please return this form with the signed and completed MSA Task Order.  
Responsive ■ Resourceful ■ Reliable



HAZARDOUS MATERIALS DIVISION  
FIELD SERVICES • ENVIRONMENTAL PROTECTION  
385 North Arrowhead Avenue, Second Floor • San Bernardino, CA 92415-0153  
(909) 387-3080 • Fax (909) 387-4323

RICHARD W. SEWELL  
Fire Chief  
County Fire Warden

September 4, 1998

ELMER J. WOOD, INC  
PO BOX 1528  
RIVERSIDE, CA 92507

**SUBJECT: REMOVAL OF TWO UNDERGROUND STORAGE TANKS AT  
5355 AIRPORT, ONTARIO**

The Department has reviewed the report dated July 25, 1989, submitted by Babcock & Sons, Inc. for the facility at the subject address. The results indicate that contamination remaining in the excavation is below that which is generally considered a problem and further investigation is not warranted at this time.

**It is important to note** that this does not constitute a release of liability for contamination remaining on site or contamination not detected. Should site conditions change, the Department may require further investigation and remedial action.

If you have any questions, please call (909) 387-3082.

**SUSAN WILLIAMS, REHS**  
Hazardous Materials Field Services

SW/jc

JAMES J. HLAWEN  
County Administrative Officer

Board of Supervisors			
KATHY A. DAVIS	..... First District	DENNIS HANSBERGER	..... Third District
JON D. MIKELS	..... Second District	LARRY WALKER	..... Fourth District
JERRY EAVES	..... Fifth District		

*file*

# COUNTY FIRE DEPARTMENT

OFFICE OF THE FIRE MARSHAL  
HAZARDOUS MATERIALS DIVISION  
620 South "E" Street • San Bernardino, CA 92415-0153  
(909) 386-8401 • Fax (909) 386-8460



COUNTY OF SAN BERNARDINO  
ECONOMIC DEVELOPMENT  
AND PUBLIC SERVICES GROUP

PETER R. HILLS  
Fire Chief  
County Fire Warden

January 8, 2002

COAST GRAIN INC  
5355 E AIRPORT DRIVE  
ONTARIO, CALIFORNIA 91761

ATTENTION: JOHN STELLINGWORTH

**SUBJECT: REMOVAL OF ONE UNDERGROUND STORAGE TANK  
AT COAST GRAIN INC, LOCATED AT 5355 E. AIRPORT DRIVE,  
ONTARIO, CALIFORNIA**

The Department has reviewed the report submitted by Tank Specialists of California for the facility at the above address. The results of the soil sampling activity conducted on December 5, 2002 indicate that further investigation is not warranted at this time.

**It is important to note** that this cannot be construed as a release of liability for the site or declaration that the site is free from contamination. Should further projects or environmental investigations reveal additional contaminants on site, you will be responsible and held liable for the investigation and remedial actions.

If you have any questions, please call me at (909) 386-8419.

*Catherine B. Richards*

**CATHERINE B. RICHARDS, R.E.H.S.  
ENVIRONMENTAL HEALTH SPECIALIST II  
HAZARDOUS MATERIALS DIVISION  
SITE REMEDIATION/LOCAL OVERSIGHT PROGRAM**

CBR/lld

cc: Dave Hopper, Tank Specialists of California

JOHN F. MONTAGNINI  
County Administrator

JOHN DEES  
Deputy County Administrator  
County of San Bernardino  
Public Services Group

ALL DISTRICTS  
JOHN D. HUBBELL

JOHN F. MONTAGNINI

First District: GENE HANBERGER  
Second District: FRED AGUIAR  
Third District: GENE HANBERGER  
Fourth District: FRED AGUIAR  
Fifth District: JUSTIN BAYES

certification number *1000*



TANK SPECIALISTS OF CALIFORNIA

1500 West 9th Street  
Carroll, CA 95921

The stockpiled soil was backfilled into the excavation and the UST area was covered by asphalt, per Dave Hopper, Tank Specialists.

Phone: (916) 435-7200  
Fax: (916) 435-7200

Richard

1/7/03

Company: San Bernardino County

Attention: Katherine Williams

Project: Clark Drive Interchange

Number of Pages: 10

Contractor: The Hillier Group



# California Regional Water Quality Control Board

## Santa Ana Region



Winston H. Hickox  
Secretary for  
Environmental  
Protection

Internet Address: <http://www.swrcb.ca.gov>  
3737 Main Street, Suite 500, Riverside, California 92501-3339  
Phone (909) 782-4130 FAX (909) 781-6288

Gray Davis  
Governor

September 24, 1999

Mr. Barry Koca  
By-Products and Transportation Manager  
Coast Grain Company, Citrus Division  
P. O. Box 3610  
Ontario, CA 91761

### APPROVAL OF CLOSURE REPORT FOR THE BRINE DISPOSAL POND, COAST GRAIN COMPANY, ONTARIO, CALIFORNIA

Dear Mr. Koca:

We have reviewed the final report regarding closure of the brine disposal pond at the Coast Grain site. The pond site is owned by the Union Pacific Railroad Company (UP), and is adjacent to the boiler room at the Coast Grain facility. The pond was used for disposal of boiler blowdown water until 1997. The closure project included removal and disposal of approximately 7,500 cubic yards of salt-contaminated soil, placement of a 40 mil, high-density polyethylene (HDPE) liner, and backfill of the excavation using select sand and clean soil. The boiler blowdown water has been re-routed to discharge into a temporary storage tank with secondary containment. When the tank is full, the brine is discharged to the Santa Ana River Interceptor (SARI) line, under permit from the Chino Basin Municipal Water district.

The closure report includes a copy of the August 11, 1998 letter from Jim Gorley of UP, assuring that there shall be no further excavation or development of the section of railway property encompassing the former pond site. It is our understanding that copies of Mr. Gorley's letter will remain in permanent files at both the Coast Grain office, and the UP office in Omaha, Nebraska.

Based on the information you have provided, and our staff's May 6, 1999 inspection of the former brine disposal area, the brine pond closure project is deemed complete. If you have any questions regarding this letter, please call me at (909) 782-4904.

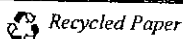
Sincerely,

Ann E. Sturdivant  
Associate Engineering Geologist

cc: Jim T. Gorley, Manager, Environmental Field Operations, Union Pacific Railroad Co., Room 930, 1416 Dodge Street, Omaha, NE 68179

AES/coastgr/pond-clo.doc

California Environmental Protection Agency



**APPENDIX D**  
**ENVIRONMENTAL DATABASE INFORMATION**

## APPENDIX D: QUALIFICATIONS

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## PHASE II SUBSURFACE INVESTIGATION REPORT

5355 East Airport Drive  
Ontario, California 91761

August 16, 2016  
Partner Project Number: 16-163550.2

Prepared for:  
**Prologis**  
Pier 1, Bay 1  
San Francisco, California 94111



August 16, 2016

Ms. Janet Frentzel  
Prologis  
Pier 1, Bay 1  
San Francisco, California 94111

Subject: Phase II Subsurface Investigation Report  
5355 East Airport Drive  
Ontario, California 91761  
Partner Project Number: 16-163550.2

Dear Ms. Frentzel:

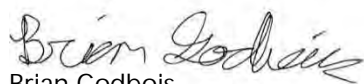
Partner Engineering and Science, Inc. (Partner) is pleased to provide the results of the assessment performed on the above-referenced property. The following report describes the field activities, methods, and findings of the Phase II Subsurface Investigation conducted at the above-referenced property.

This assessment was performed utilizing methods and procedures consistent with good commercial or customary practices designed to conform to acceptable industry standards. The independent conclusions represent Partner's best professional judgment based upon existing conditions and the information and data available to us during the course of this assignment.

We appreciate the opportunity to provide these services. If you have any questions concerning this report, or if we can assist you in any other matter, please contact Misty Vazquez Ponce at (310) 615-4500.

Sincerely,

Partner Engineering and Science, Inc.



Brian Godbois  
Staff Scientist



Samantha J. Fujita, PG  
Regional Manager – Subsurface Investigation



Misty Vazquez Ponce, PE  
Principal



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## ATTACHMENTS

Tables	1. Summary of Investigation Scope
	2. Soil Sample TPH-cc Laboratory Results
	3. Soil Sample VOCs Laboratory Results
	4. Soil Gas Sample VOCs Laboratory Results
Figures	1. Site Plan
	2. Topographic Map
	3. Sample Location Map
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	B. Laboratory Analytical Reports

## **1.0 INTRODUCTION**

---

### **1.1 Purpose**

The purpose of the investigation was to identify the location of the former on-site underground storage tanks (USTs), tankholds, and/or other associated features and to investigate the potential impact of petroleum hydrocarbons and/or volatile organic compounds (VOCs) to soil and/or soil gas as a consequence of a release or releases from the on-site grain handling facility. Prologis provided project authorization of Partner Proposal Number P16-163550.2, and the work was conducted under the Master Services Agreement between Prologis and Partner dated April 18, 2013.

### **1.2 Limitations**

This report presents a summary of work conducted by Partner. The work includes observations of site conditions encountered and the analytical results provided by an independent third party laboratory of samples collected during the course of the project. The number and location of samples were selected to provide the required information. However, it cannot be assumed that the limited available data are representative of subsurface conditions in areas not sampled.

Conclusions and/or recommendations are based on the observations, laboratory analyses, and the governing regulations. Conclusions and/or recommendations beyond those stated and reported herein should not be inferred from this document.

Partner warrants that the environmental consulting services contained herein were accomplished in accordance with generally-accepted practices in the environmental engineering, geology, and hydrogeology fields that existed at the time and location of work. No other warranties are implied or expressed.

### **1.3 User Reliance**

Partner was engaged by Prologis (the Addressee), or their authorized representative, to perform this investigation. The engagement agreement specifically states the scope and purpose of the investigation, as well as the contractual obligations and limitations of both parties. This report and the information therein, are for the exclusive use of the Addressee. This report has no other purpose and may not be relied upon, or used, by any other person or entity without the written consent of Partner. Third parties that obtain this report, or the information therein, shall have no rights of recourse or recovery against Partner, its officers, employees, vendors, successors or assigns. Any such unauthorized user shall be responsible to protect, indemnify and hold Partner, the Addressee and their respective officers, employees, vendors, successors and assigns harmless from any and all claims, damages, losses, liabilities, expenses (including reasonable attorneys' fees) and costs attributable to such use. Unauthorized use of this report shall constitute acceptance of, and commitment to, these responsibilities, which shall be irrevocable and shall apply regardless of the cause of action or legal theory pled or asserted.

This report has been completed under specific Terms and Conditions relating to scope, relying parties, limitations of liability, indemnification, dispute resolution, and other factors relevant to any reliance on this



report. Any parties relying on this report do so having accepted the Terms and Conditions for which this report was completed.

## 2.0 SITE BACKGROUND

---

### 2.1 Site Description

The subject property consists of three parcels of land comprising approximately 14.2 acres located on the north side of Airport Drive within a mixed commercial and industrial area of San Bernardino County, California. The subject property is currently occupied by the Scoular Company with a sub-lease on the property to Verhoeven Grain Company for commercial/industrial use. The subject property is a grain-handling facility that has been in operation since at least 1973 and is developed with six buildings. On-site operations consist of loading and unloading of multiple types of grain from the adjacent rail yard, storing, milling, and processing the grain for bulk and retail sale. In addition to the current structures, the subject property is also improved with bulk storage silos, milling facilities, and maintenance areas. The subject property has landscaping on the southern boundary, along Airport Drive.

The subject property is bound by commercial properties to the north across the railroad, commercial properties to the east, commercial properties to the south across East Airport Drive, and commercial properties to the west. Refer to Figure 1 for a site plan showing site features and surrounding properties.

### 2.2 Site History

Partner is concurrently conducting a Phase I Environmental Site Assessment Report (Phase I) on behalf of Prologis. Based on the information reviewed and the site reconnaissance, the subject property was previously undeveloped as early as 1932; developed as agricultural land between 1938 and circa 1970; and developed with the current structures in 1973. Tenants on the subject property have included Chino Grain Company (1985); Coast Grain Company (1990-2003); J.B. Heiskell & Co. (2008); The Scoular Company (2006-Present); and a sub-lease to Verhoeven Grain Company (2008-Present).

Based on the historical information review, at least one and up to as many as five petroleum USTs were situated on the subject property prior to 2012. Regulatory closure letters address the removal of the three former 12,000-gallon diesel USTs, but it appears that the "truck stop" UST removed in 1986 has no documented removal. Based on the lack of information regarding the disposition of the USTs at this facility, the former UST are considered a recognized environmental condition (REC).

The subject property is currently equipped with two 250-gallon aboveground storage tanks (ASTs) containing diesel fuel. The original installation date is unknown. Based on the lack of information regarding the age and installation dates of these ASTs at this facility, the ASTs are considered a REC.

During the site visit, it was noted that sanitary discharges from the subject property are directed to an on-site septic system. A maintenance area was observed on the property that included the use/storage of 20 to 30 55-gallon drums containing automotive fluids such as motor oil, waste motor oil, and antifreeze. Two 250-gallon diesel ASTs were present in this area. Diesel fuel is used to maintain the yard equipment, such as the front-end loaders, forklifts, and the bobcats. No floor drains were noted in the area of the diesel ASTs.

### **2.3 Geology and Hydrogeology**

Based on a review of the United States Geological Survey (USGS) Guasti, California Quadrangle topographic map, the subject property is situated at an elevation approximately 975 feet above mean sea level, and the local topography is sloping gently to the south. Refer to Figure 2 for a topographic map of the site vicinity.

According to the California Geological Survey the subject property is situated in the Peninsular Ranges which are a series of ranges separated by northwest trending valleys, subparallel to faults branching from the San Andreas Fault. The trend of topography is similar to the Coast Ranges, but the geology is more like the Sierra Nevada, with granitic rock intruding the older metamorphic rocks. The Peninsular Ranges extend into lower California and are bound on the east by the Colorado Desert. The Los Angeles Basin and the island group (Santa Catalina, Santa Barbara, and the distinctly terraced San Clemente and San Nicolas islands), together with the surrounding continental shelf (cut by deep submarine fault troughs), are included in the province.

Based on borings advanced during this investigation, the underlying subsurface consists predominantly of brown, very fine grained, medium dense, damp, silty sand (SM) from the ground surface to approximately 20 feet below ground surface (bgs). From 20 to 25 feet bgs, the subsurface consists predominantly of brown, very fine to coarse grained, dense, damp, poorly graded, sand (SP). Refer to Appendix A for boring logs from this investigation.

Information specific to the subject property regarding the depth to groundwater and direction of groundwater flow was not available for the subject area. However, according to information obtained from online research, depth to the high water table is anticipated between 250 and 350 feet bgs.

## 3.0 FIELD ACTIVITIES

---

Refer to Table 1 for a summary of the borings, sampling schedule and laboratory analyses for this investigation. The initial scope of the Phase II Subsurface Investigation included a geophysical survey and the advancement of 12 borings (B1 through B12) for the collection of representative soil and/or soil gas samples. Based on the results of the initial investigation, 13 additional soil gas borings (SV-13 through SV-26) were advanced for the collection of representative soil gas samples.

### 3.1 Preparatory Activities

Prior to the initiation of fieldwork, Partner completed the following activities.

#### 3.1.1 Utility Clearance

Partner delineated the work area with white spray paint and Underground Service Alert of Southern California (USA/SC) to clear public utility lines as required by law at least 48 hours prior to drilling activities. USA/SC issued ticket number B61960144 for the project.

#### 3.1.2 Health and Safety Plan

Partner reviewed the site-specific Health and Safety Plan with on-site personnel involved in the project prior to the commencement of drilling activities.

### 3.2 Geophysical Survey

On July 21, 2016, Ground Penetrating Radar Systems, Inc. (GPRS) conducted a geophysical survey under the supervision of Partner. The purpose of the geophysical survey was to identify USTs remaining in place, backfilled tankholds, septic tanks, and/or associated features, and clear boring locations of utilities. The geophysical survey was conducted with a Geonics EM-61 and a Fischer M-Scope electromagnetic induction (EM) equipment, a Schonstedt GA-52 magnetic gradiometer, a Sensors and Software Noggin ground penetrating radar (GPR) unit, and a Metrotech 9890 utility locator with line-tracing capabilities.

GPRS systematically free-traversed the investigation area with the aforementioned equipment. The equipment data were interpreted in real time and compiled as necessary in order to identify subsurface anomalies consistent with USTs, disturbed soil resembling backfilled tankholds, piping trenches, utility lines, and/or other subsurface conduits/features.

The geophysical survey identified one large anomaly in the eastern portion of the subject property to the west of Building B, under the canopy. The location and shape of the anomaly, which consisted of a backfilled excavation, generally corresponded to the location of the former USTs. No large metallic features were identified, which confirms that the USTs have been removed.

The geophysical survey also identified one large anomaly resembling a septic system to the north of Building A.

In addition, GPRS systematically free-traversed each proposed boring location with the aforementioned equipment and the equipment data were interpreted in real time for evidence of utility lines and/or other subsurface features of potential concern. Boring placement was modified as necessary based on the geophysical survey results to avoid damaging underground features.

### **3.3 Drilling Equipment**

On July 21, 2016, Partner subcontracted with Minute Man Drilling (MMD) to provide and operate drilling equipment. MMD, under the direction of Partner, advanced borings B1 through B12 with a truck-mounted Geoprobe Model 540MT direct push rig. Sampling equipment was decontaminated between sample intervals and boring locations to prevent cross-contamination.

After the initial laboratory results were received, further investigation was deemed necessary. On July 29, 2016, Partner subcontracted with Optimal Technology (Optimal) to provide and operate drilling equipment to install and sample 13 soil gas probes. Optimal, under the direction of Partner, advanced soil gas borings SV-13 through SV-26 with an electric rotary hammer drill. Sampling equipment was decontaminated between sample intervals and boring locations to prevent cross-contamination.

### **3.4 Boring Locations**

Boring B1 was advanced to the east of the ASTs. Boring B2 was advanced to the west of the hazardous waste storage area in Building B. Borings B3 through B6 were advanced to the southwest, west, east, and north of the former UST tankhold, respectively. Borings B7 and B8 were advanced to the east and northwest of the septic system, north of Building A, respectively. Boring B9 was advanced in the north-central interior of the Building A maintenance area. Boring B10 was advanced to the east of the conveyor belt. Boring B11 was advanced in the west-central area of the vehicle wash down area. Boring B12 was advanced to the southeast area of the railroad spur.

Borings SV-13 and SV-14 were advanced to the southeast and northeast of the former USTs, respectively. Borings SV-15 through SV-17 were advanced in the north-central, central, and southern interior of Building B, respectively. Boring SV-18 was advanced in the east-central area of the vehicle wash down area. Boring SV-19 was advanced to the southeast of the ASTs. Borings SV-20 and SV-21 were advanced to the northwest and west of the septic system, respectively. Boring SV-22 was advanced to the west exterior of Building A. Borings SV-23 and SV-24 were advanced in the northeast and southeast interior of Building A, respectively. Borings SV-25 and SV-26 were advanced in the northwest and southeast interior of the maintenance area of Building A.

Boring placement was limited/modified utility conflicts, and/or access by the drill rig. Refer to Figure 3 for a map indicating boring locations.

### **3.5 Boring Depths**

Borings B1 through B11 and SV-13 through SV-26 were overlain by concrete, which was penetrated using a concrete coring attachment advanced by the direct-push drill rig and/or electric rotary hammer drill. Boring B12 was unpaved.

Borings B1, B2, and B9 through B12 were advanced to a terminal depth of one feet bgs. Borings B3, B5, and B6 were advanced to a terminal depth of 25 feet bgs. Boring B4 was advanced to a terminal depth of 20 feet bgs due to drilling refusal. Borings B7 and B8 were advanced to a terminal depth of 15 feet bgs. Borings SV-13, SV-15, and SV-17 through SV-26 were advanced to a terminal depth of five feet bgs. Borings SV-14 and SV-16 were advanced to a terminal depth of four feet bgs due to drilling refusal.

### **3.6 Soil Sampling**

Soil samples were collected from borings B1 through B12 using a two-foot long by 1.5-inch diameter sampler with a two-foot long acetate liner and sampling point. The sampler was advanced by the direct-push drill rig using four-foot by 1.25-inch diameter hollow rods with the inner rods in place. At approximately one foot above the desired sampling depth, an inner rod was removed and the sampler was advanced to the desired sampling depth to allow undisturbed soil to enter the sampling liner. The sampler was retrieved from the subsurface and the soil-filled liner was removed.

Each acetate liner was cut using a pipe-cutter. Samples were collected from the lower half of the liner using a disposable plastic syringe and retained in two sodium bisulfate-preserved volatile organics analysis (VOA) vials in accordance with United States Environmental Protection Agency (EPA) Method 5035 sampling protocol. The remainder of the lower half of the liner was capped on either end with Teflon tape and plastic caps. The capped liners and VOA vials were labeled for identification and stored in an iced cooler. The soil in the upper half of the liner was visually inspected for discoloration, monitored for odors, classified in accordance with the Unified Soil Classification System, placed in a sealable plastic bag, and field-screened with a photoionization detector (PID). None of the samples exhibited discoloration or an odor and none of the PID readings suggested the presence of elevated volatile organics concentrations.

Soil samples were collected from borings B1, B2, and B9 through B12 at one foot bgs. Soil samples were collected from borings B3, B5, and B6 at five, 10, 15, 20, and 25 feet bgs. Soil samples were collected from boring B4 at five, 10, 15, and 20 feet bgs. Soil samples were collected from borings B7 and B8 at five, 10, and 15 feet bgs.

### **3.7 Initial Soil Gas Sampling**

#### Soil Gas Probe Construction

Soil gas probes screened at five feet bgs in borings B3 through B8 were constructed within the boreholes upon completion of soil sampling or drilling to the terminal depth. Boreholes were backfilled with dry, granular bentonite to approximately six inches below the desired sampling depth. A new section of ¼-inch diameter polyethylene tubing with a new ¼-inch diameter polypropylene filter at the terminal end was inserted into the borehole to the desired sampling depth. One-inch diameter polyvinyl chloride (PVC) casing was used as a guide for the tubing to ensure that the desired sampling depth was achieved. Sand was poured into the boring annulus to form an approximately one-foot long sand pack around the polypropylene filter, at which time the PVC piping was withdrawn. Approximately one foot of dry, granular bentonite was placed atop the sand pack and the remainder of the borehole was backfilled with hydrated bentonite to the ground surface to form a seal. The sampling end of the tubing was fitted with a valve and the probe was labeled for identification.

#### Soil Gas Sampling Methodology

Soil gas samples were collected in general accordance with the July 2015 Department of Toxic Substances Control (DTSC) and Los Angeles Regional Water Quality Control Board (LARWQCB) "Advisory – Active Soil Gas Investigations."

Soil gas samples were collected using one-liter, stainless-steel, cylindrical SUMMA canisters. The sampling containers were provided by SunStar Laboratories, Inc. (SunStar) a state-certified laboratory [California Department of Public Health (CDPH) Environmental Laboratory Accreditation Program (ELAP) certificate number 2250] in Lake Forest, California, which subjected each canister to a rigorous cleaning process using a combination of dilution, heat, and high vacuum. After cleaning, the canisters were batch certified to be free of target contaminants to a specified reporting limit via gas chromatography/mass spectroscopy prior to delivery.

Partner received the SUMMA canisters evacuated to approximately 30 inches of mercury. The SUMMA canisters were fitted with stainless-steel flow controllers, which Sunstar calibrated to maintain constant flow (approximately 0.1 liter per minute) for approximately five to 10 minutes of sampling time.

Each probe was allowed to equilibrate for a minimum of two hours after installation prior to sampling. After equilibration, the sample tubing and sampler screen were purged of ambient air using a plastic syringe. Tracer liquid isopropyl alcohol was placed around each probe at the ground surface while sampling to detect ambient air intrusion. The tracer gas was not detected in any sample, indicating that the integrity of the bentonite seal was maintained. Once the ambient air was purged, the sampling end of the tubing was fitted to the sampling canister and the port valve was opened, causing air to enter the sample container due to the pressure differential. Partner closed the valves after the canister was evacuated to approximately one to two inches of mercury, with pertinent data (e.g., time, canister vacuum) recorded at the start and end of sampling.

The SUMMA canisters were labeled for identification and stored away from direct sunlight prior to analysis.

Soil gas samples were collected from borings B3 through B8 at five feet bgs.

### **3.8 Soil Gas Samples Collected by Optimal**

Based on the results of the initial investigation, Optimal was contracted to conduct soil gas sampling on-site. Soil gas sampling at borings SV-13 through SV-26 was performed by hydraulically pushing soil gas probes to a depth of four or five feet bgs. An electric rotary hammer drill was used to drill a one inch diameter hole through the overlying surface to allow probe placement when required. The same electric hammer drill was used to push probes in areas of resistance during placement.

At each sampling location an electric vacuum pump set to draw 0.2 liters per minute (L/min) of soil gas was attached to the probe and purged prior to sample collection. Soil gas samples were obtained in SGE gas-tight syringes by drawing the sample through a luer-lock connection which connects the sampling probe and the vacuum pump. Samples were immediately injected into the gas chromatograph (GC)/purge and trap after collection. New tubing was used at each sampling point to prevent cross contamination.

Analyses were performed on a laboratory grade Hewlett Packard model 5890 Series II gas chromatograph equipped with a Hewlett Packard model 5971 Mass Spectra Detector and Tekmar LSC 2000 Purge and Trap. An SGE capillary column using helium as the carrier gas was used to perform the analysis. The results were collected on a personal computer utilizing Hewlett Packard's 5971 MS and chromatographic data collection and handling system.

A replicate analysis (duplicate) was run to evaluate the reproducibility of the sampling system and instrument. The difference between samples did not vary more than 20%. Blanks were run at the beginning of each workday and after calibrations. The blanks were collected using an ambient air sample. These blanks checked the septum, syringe, GC column, GC detector and the ambient air. Contamination was not found in any of the blanks analyzed during this investigation. Blank results are given along with the sample results.

A tracer gas was applied to the soil gas probes at each point of connection in which ambient air could enter the sampling system. These points include the top of the sampling probe where the tubing meets the probe connection and the surface bentonite seals. Isobutane was used as the tracer gas. No isobutane was found in any of the samples collected. The standard purge volume of three volumes was purged in accordance with the July 2015 DTSC/RWQCB Advisory for Active Soil Gas Investigations. A shut-in test was conducted prior to purging or sampling each location to check for leaks in the above-ground sampling system. The system was evaluated to a minimum measured vacuum of 100 inches of water. The vacuum gauge was calibrated and sensitive enough to indicate a water pressure change of at least 0.5 inches.

### **3.9 Post-Sampling Activities**

Probes were removed from the subsurface and the boreholes were backfilled with hydrated bentonite chips following sampling activities. Boreholes advanced in improved areas were capped with concrete to match existing ground cover after being backfilled.

No significant amounts of derived wastes were generated during this investigation.



## 4.0 LABORATORY ANALYSIS

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### 4.1 Laboratory Analysis

Partner collected 33 soil samples and six soil gas samples on July 21, 2016, which were transported on July 22, 2016, in an iced cooler (soil) or at room temperature (soil gas) under proper chain-of-custody protocol to SunStar, for analysis. Based on field-screening results, visual observations, and/or olfactory observations, one soil sample from borings B1 through B12 (12 soil samples total) was analyzed for carbon chain total petroleum hydrocarbons (TPH-cc) in accordance with EPA Method 8015C and VOCs in accordance with EPA Method 8260B. Each of the six soil gas samples collected by Partner was analyzed for VOCs in accordance with EPA Method TO-15. The remaining soil samples were placed on hold at the laboratory.

Optimal, a state-certified mobile laboratory (CDPH ELAP certificate number 2779) that was present on-site, collected 14 soil gas samples, two purge test samples, and one duplicate sample on July 29, 2016, which were immediately loaded into the gas chromatograph/mass spectrometer (GC/MS) for analysis. Each soil gas sample was analyzed for VOCs in accordance with Modified EPA Method 8260B.

### 4.2 Laboratory Analytical Results

Laboratory analytical results are included in Appendix B and discussed below.

#### 4.2.1 Soil Sample Analytical Results

None of the analyzed soil samples contained detectable concentrations of TPH-cc or VOCs above their respective laboratory Reporting Limits (RL).

Refer to Table 2 and 3 for a summary of the soil sample TPH-cc and VOCs laboratory analysis results, respectively.

#### 4.2.2 Soil Gas Sample Analytical Results

Various VOCs including tetrachloroethene (PCE), trichloroethene (TCE), ethylbenzene, m,p-xylene, and o-xylene were detected in the analyzed soil gas samples above laboratory RLs. No other VOCs were detected above laboratory RLS.

Refer to Table 4 for a summary of the soil gas sample VOCs laboratory analysis results.

## 5.0 DISCUSSION AND CONCLUSIONS

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### 5.1 Regulatory Agency Guidance

Department of Toxic Substances Control Attenuation Factor and Regional Screening Levels

Regional Screening Levels (RSLs) (formerly Preliminary Remediation Goals) are generic, risk-based chemical concentrations developed by the EPA Region 9 for use in initial screening-level evaluations. RSLs combine human health toxicity values with standard exposure factors to estimate contaminant concentrations that are considered to be health protective of human exposures over a lifetime through direct-contact exposure pathways (e.g., via inhalation and/or ingestion of and/or dermal contact with impacted soil and/or indoor air). RSLs are not legally enforceable standards, but rather are considered guidelines to evaluate if potential risks associated with encountered chemical impacts may warrant further evaluation.

The DTSC Office of Human and Ecological Risk (HERO) developed California-Modified RSLs based on a review of 1) the differences in methodology between PRGs and RSLs 2) RSL concentrations, and 3) recent toxicity values.

While soil gas detections are not immediately comparable to the indoor air quality guidelines within the RSLs, the DTSC issued recommended default attenuation factors of 0.05 (subslab sampling locations) and 0.002/0.001 (residential/commercial contaminant source sampling locations) for sites where the attenuation factor for the building slab is unknown or cannot be determined in the October 2011 document Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air. With the subsurface contaminant concentrations and default attenuation factors, the associated contaminant concentrations in indoor air can be estimated as Calculated Residential and Commercial/Industrial Soil Gas Screening Levels (SGSLs).

### 5.2 Discussion

None of the analyzed soil samples contained detectable concentrations of TPH-cc or VOCs above laboratory RLs, and the laboratory RLs were below applicable Maximum SSLs (TPH-cc) or residential and commercial/industrial RSLs (VOCs).

Of the detected concentrations of VOCs above laboratory RLs, none exceeded the calculated residential or commercial/industrial SGSLs. No other VOCs were detected above laboratory RLs, which are below calculated residential or commercial/industrial SGSLs.

Based on these concentrations, there is evidence of de minimis release of hazardous materials from the subject property. The detected VOC concentrations in soil gas do not exceed applicable screening levels. Based on these findings, there does not appear to be a discernible vapor intrusion condition to the subject property and the detections of VOCs in soil gas do not appear to represent a threat to human health or the environment.

### 5.3 Summary and Conclusions

Partner conducted a Phase II Subsurface Investigation at the subject property to identify the location of the former on-site USTs, tankholds, and/or other associated features and to investigate the potential impact of petroleum hydrocarbons and VOCs to soil and soil gas as a consequence of a release or releases from the

on-site grain handling facility. The scope of the Phase II Subsurface Investigation included a geophysical survey and 26 soil borings. Twelve soil samples were analyzed for TPH-cc and VOCs, and 21 soil gas samples were analyzed for VOCs including one replicate.

The geophysical survey identified one large anomaly in the eastern portion of the subject property to the west of Building B, under the canopy. The location and shape of the anomaly, which consisted of a backfilled excavation, generally corresponded to the location of the former USTs. No large metallic features were identified, which confirms that the USTs have been removed. The geophysical survey also identified one large anomaly resembling a septic system to the north of Building A.

Subsurface lithology encountered in the upper 20 feet bgs consisted predominantly of brown, very fine grained, medium dense, damp, silty sand (SM). From 20 to 25 feet bgs, the subsurface consists predominantly of brown, very fine to coarse grained, dense, damp, poorly graded, sand (SP). Groundwater was not encountered.

There were no TPH-cc or VOCs detected in soil in excess of applicable laboratory RLs which were below Maximum SSLs (TPH-cc) and residential and commercial/industrial RSLs (VOCs).

Of the detected concentrations of VOCs above applicable laboratory RLs in soil gas, none exceeded the calculated residential or commercial/industrial SGSLs. No other VOCs were detected above applicable laboratory RLs, which are below the calculated residential or commercial/industrial SGSLs.

Based on these concentrations, there is evidence of de minimis release of hazardous materials from the subject property. The detected VOCs concentrations in soil gas do not exceed applicable screening levels.

Based on the Subsurface Investigation, there does not appear to be a discernible vapor intrusion condition to the subject property and the detections of VOCs in soil gas do not appear to represent a threat to human health or the environment. Partner recommends no further investigation with respect to the on-site grain handling facility at this time.

## TABLES

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Table 1: Summary of Investigation Scope  
5355 E. Airport Drive  
Ontario, California 91761  
Partner Project Number 16-163550.2  
August 2016

Boring Identification	Location	Terminal Depth (feet bgs)	Matrix Sampled	Sampling Depths* (feet bgs)	Target Analytes
<b>B1</b>	East of ASTs	1	Soil	<b>1</b>	TPH-cc, VOCs
<b>B2</b>	West of Hazardous Waste Storage in Building B	1	Soil	<b>1</b>	TPH-cc, VOCs
<b>B3</b>	Southwest of Former USTs	25	Soil Gas	5	VOCs
			Soil	5, 10, <b>15</b> , 20, 25	TPH-cc, VOCs
<b>B4</b>	West of Former USTs	20**	Soil Gas	5	VOCs
			Soil	5, <b>10</b> , 15, 20	TPH-cc, VOCs
<b>B5</b>	East of Former USTs	25	Soil Gas	5	VOCs
			Soil	5, 10, <b>15</b> , 20, 25	TPH-cc, VOCs
<b>B6</b>	North of Former USTs	25	Soil Gas	5	VOCs
			Soil	5, <b>10</b> , 15, 20, 25	TPH-cc, VOCs
<b>B7</b>	East of Septic System	15	Soil Gas	5	VOCs
			Soil	5, <b>10</b> , 15	TPH-cc, VOCs
<b>B8</b>	Northwest of Septic System	15	Soil Gas	5	VOCs
			Soil	5, <b>10</b> , 15	TPH-cc, VOCs
<b>B9</b>	North-Central Interior of Building A Maintenance Area	1	Soil	<b>1</b>	TPH-cc, VOCs
<b>B10</b>	East of Conveyor Belt	1	Soil	<b>1</b>	TPH-cc, VOCs
<b>B11</b>	West-Central Area of Vehicle Wash Down Area	1	Soil	<b>1</b>	TPH-cc, VOCs
<b>B12</b>	Southeast Area of Railroad Spur	1	Soil	<b>1</b>	TPH-cc, VOCs
<b>SV-13</b>	Southeast of Former USTs	5	Soil Gas	5	VOCs
<b>SV-14</b>	Northeast of Former USTs	4**	Soil Gas	4	VOCs
<b>SV-15</b>	North-Central Interior of Building B Maintenance Area	5	Soil Gas	5	VOCs
<b>SV-16</b>	Central Interior of Building B	4**	Soil Gas	5	VOCs
<b>SV-17</b>	Northeast of Hazardous Waste Storage in Building B	5	Soil Gas	5	VOCs
<b>SV-18</b>	East-Central Area of Vehicle Wash Down Area	5	Soil Gas	5	VOCs
<b>SV-19</b>	Southeast of ASTs	5	Soil Gas	5	VOCs
<b>SV-20</b>	Northwest of Septic System	5	Soil Gas	5	VOCs
<b>SV-21</b>	West of Septic System	5	Soil Gas	5	VOCs
<b>SV-22</b>	West-Central Exterior Area of Building A	5	Soil Gas	5	VOCs
<b>SV-23</b>	Northeast Interior Area of Building A	5	Soil Gas	5	VOCs
<b>SV-24</b>	Southeast Interior Area of Building A	5	Soil Gas	5	VOCs
<b>SV-25</b>	Northwest Interior of Maintenance Area in Building A	5	Soil Gas	5	VOCs
<b>SV-26</b>	Southeast Interior of Maintenance Area in Building A; West of Hazardous Waste Storage	5	Soil Gas	5	VOCs

Notes:

\*Depths in **bold** analyzed for carbon chain total petroleum hydrocarbons (TPH-cc) in accordance with United States Environmental Protection Agency (EPA) Method 8015M. Depths in *italics* analyzed for volatile organic compounds (VOCs) in accordance with EPA Method 8260B (soil) or EPA Method TO-15 (soil gas).

\*\*Refusal encountered at the terminal depth

bgs = below ground surface

UST = underground storage tank

AST = aboveground storage tank

Table 2: Soil Sample TPH-cc Laboratory Results  
 5355 E. Airport Drive  
 Ontario, California 91761  
 Partner Project Number 16-163550.2  
 August 2016

EPA Method	VOCs via 8026B												
Units	mg/kg												
Analyte	Maximum SSL	B1-1	B2-1	B3-15	B4-10	B5-15	B6-10	B7-10	B8-10	B9-1	B10-1	B11-1	B12-1
<b>TPH-g</b>	<b>1,000</b>	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
<b>TPH-d</b>	<b>10,000</b>	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
<b>TPH-o</b>	<b>50,000</b>	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10

Notes:

TPH-cc = carbon chain total petroleum hydrocarbons

EPA = United States Environmental Protection Agency

TPH-g = total petroleum hydrocarbons as gasoline

TPH-d = total petroleum hydrocarbons as diesel

TPH-o = total petroleum hydrocarbons as oil

mg/kg = milligrams per kilogram

SSLs = Soil-screening levels (Los Angeles Regional Water Quality Control Board - April 27, 2004) for groundwater at a depth of between 250 and 350 feet.

< = not detected above indicated laboratory Reporting Limit (RL)

Table 3: Soil Sample VOCs Laboratory Results  
5355 E. Airport Drive  
Ontario, California 91761  
Partner Project Number 16-163550.2  
August 2016

EPA Method	VOCs via 8260B													
Units	(mg/kg)													
Analyte	Residential Soil RSL	Commercial /Industrial Soil RSL	B1-1	B2-1	B3-15	B4-10	B5-15	B6-10	B7-10	B8-10	B9-1	B10-1	B11-1	B12-1
<b>Benzene</b>	<b>0.097</b>	<b>420</b>	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
<b>Toluene</b>	<b>310</b>	<b>1300</b>	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
<b>Xylenes*</b>	<b>58</b>	<b>250</b>	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
<b>PCE</b>	<b>0.6</b>	<b>2.7</b>	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
<b>TCE*</b>	<b>0.94</b>	<b>6</b>	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
<b>Other VOCs</b>	<b>NA</b>	<b>NA</b>	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

VOCs = volatile organic compounds

EPA = United States Environmental Protection Agency

mg/kg = milligrams per kilogram

RSL = June 2016 Department of Toxic Substances Control (DTSC) Regional Screening Levels (RSLs). If DTSC RSLs do not exist, May 2016 EPA Region 9 RSLs were utilized, as denoted by \*.

PCE = tetrachloroethene

TCE = trichloroethene

< = not detected above indicated laboratory Reporting Limit (RL)

NA = not applicable

ND = not detected above laboratory RLs

Table 4: Soil Gas Sample VOCs Laboratory Results  
5355 E. Airport Drive  
Ontario, California 91761  
Partner Project Number 16-163550.2  
August 2016

EPA Method	VOCs via TO-15 (7/21/2016) or 8260B (7/29/2016)							
Units	(µg/m <sup>3</sup> )							
Sample Identification	Date Sampled	PCE	TCE*	Toluene	Ethylbenzene*	m,p-Xylene*	o-Xylene*	Other VOCs
<b>B3-SG</b>	7/21/2016	< 6.9	< 5.5	< 3.8	< 4.4	<b>460</b>	< 4.4	ND
<b>B4-SG</b>	7/21/2016	< 6.9	< 5.5	< 3.8	<b>280</b>	<b>1,100</b>	<b>400</b>	ND
<b>B5-SG</b>	7/21/2016	<b>100</b>	< 5.5	< 3.8	< 4.4	<b>12</b>	< 4.4	ND
<b>B6-SG</b>	7/21/2016	<b>68</b>	<b>26</b>	<b>4</b>	< 4.4	<b>19</b>	<b>4.6</b>	ND
<b>B7-SG</b>	7/21/2016	< 6.9	< 5.5	<b>4.9</b>	<b>11</b>	<b>73</b>	<b>19</b>	ND
<b>B8-SG</b>	7/21/2016	<b>44</b>	<b>13</b>	<b>13</b>	<b>21</b>	<b>140</b>	<b>38</b>	ND
<b>SV-13-5'</b>	7/29/2016	< 100	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>SV-14-4'</b>	7/29/2016	<b>230</b>	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>SV-15-5'</b>	7/29/2016	<b>120</b>	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>SV-16-4'</b>	7/29/2016	<b>180</b>	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>SV-17-5'</b>	7/29/2016	< 100	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>SV-18-5'</b>	7/29/2016	< 100	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>SV-19-5'</b>	7/29/2016	< 100	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>SV-20-5'</b>	7/29/2016	< 100	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>SV-21-5'</b>	7/29/2016	< 100	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>SV-22-5'</b>	7/29/2016	< 100	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>SV-23-5'</b>	7/29/2016	< 100	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>SV-24-5'</b>	7/29/2016	< 100	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>SV-25-5'</b>	7/29/2016	< 100	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>SV-26-5'</b>	7/29/2016	< 100	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>SV-26-5' Dup</b>	7/29/2016	< 100	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>Residential SGSL^</b>		<b>240</b>	<b>240</b>	<b>155,000</b>	<b>550</b>	<b>50,000</b>	<b>50,000</b>	<b>NA</b>
<b>Commercial/Industrial SGSL^</b>		<b>2,100</b>	<b>3,000</b>	<b>1,300,000</b>	<b>4,900</b>	<b>440,000</b>	<b>440,000</b>	<b>NA</b>

Notes:

^Calculated soil gas screening levels (SGSLs) for soil gas concentrations were derived by dividing the June 2016 Department of Toxic Substances Control (DTSC) or May 2016 United States Environmental Protection Agency (EPA) Regional Screening Level (RSL) with an attenuation factor of 0.05 for sub-slab samples or with an attenuation factor of 0.002 for residential settings and 0.001 for commercial/industrial settings for soil gas samples deeper than sub-slab samples. DTSC RSLs are provided in the June 2016 DTSC Human and Ecological Risk Office (HERO) Human Health Risk Assessment (HHRA) Note 3. Where DTSC RSLs were not available, EPA Region 9 RSLs were utilized as denoted by \*.

VOCs = volatile organic compounds

EPA = United States Environmental Protection Agency

µg/m<sup>3</sup> = micrograms per cubic meter

PCE = tetrachloroethene

TCE = trichloroethene

Dup = replicate analysis (duplicate)

< = not detected above indicated laboratory Reporting Limit (RL)

ND = not detected above laboratory RLs

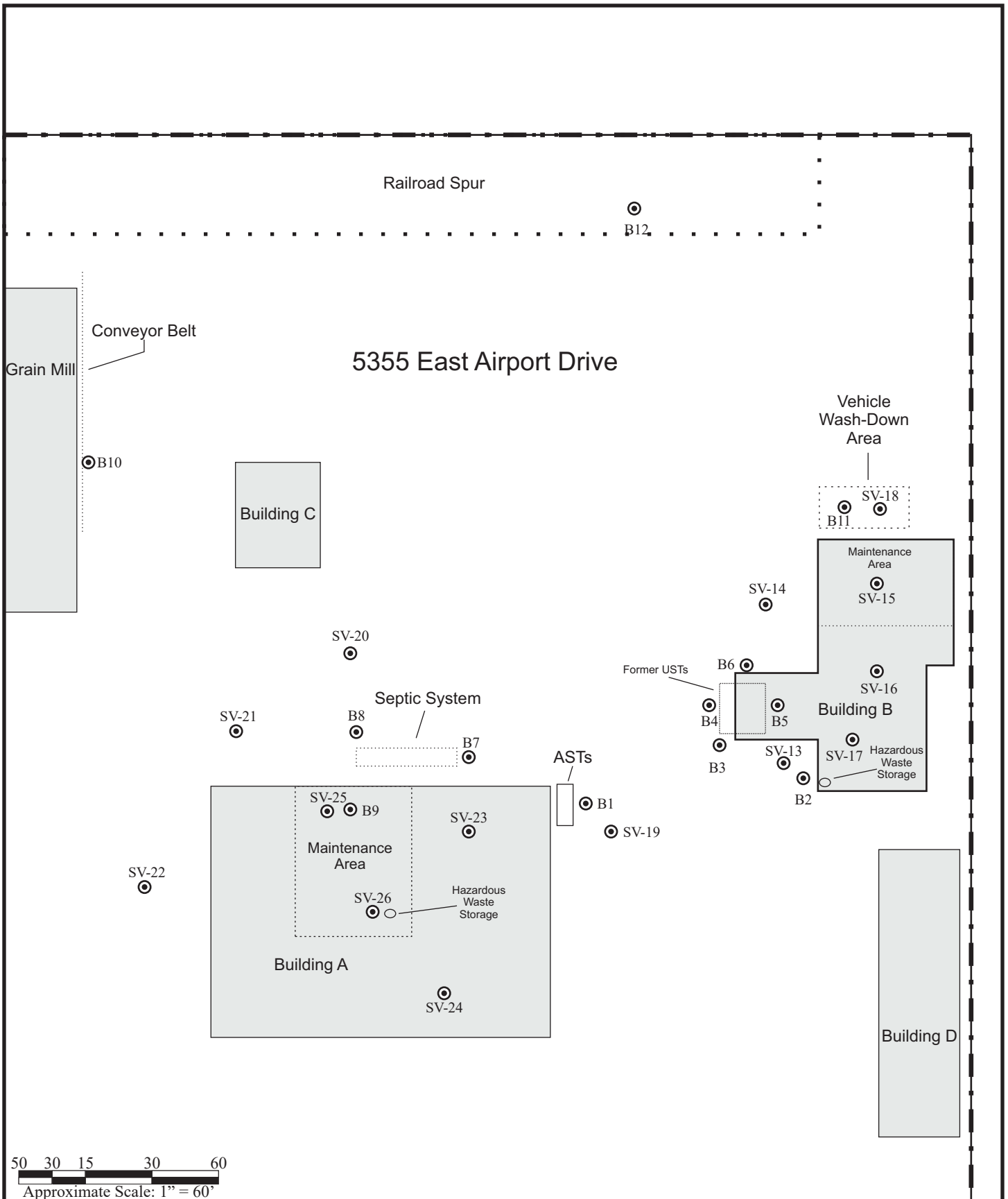
Values in **bold** exceed laboratory RLs



## FIGURES

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**PARTNER**



**PARTNER**  
 Engineering and Science, Inc.  
 2154 Torrance Boulevard, Suite 200  
 Torrance, California 90501  
 Project Number: 16-163550.2



Subject Site  
 Boring Location

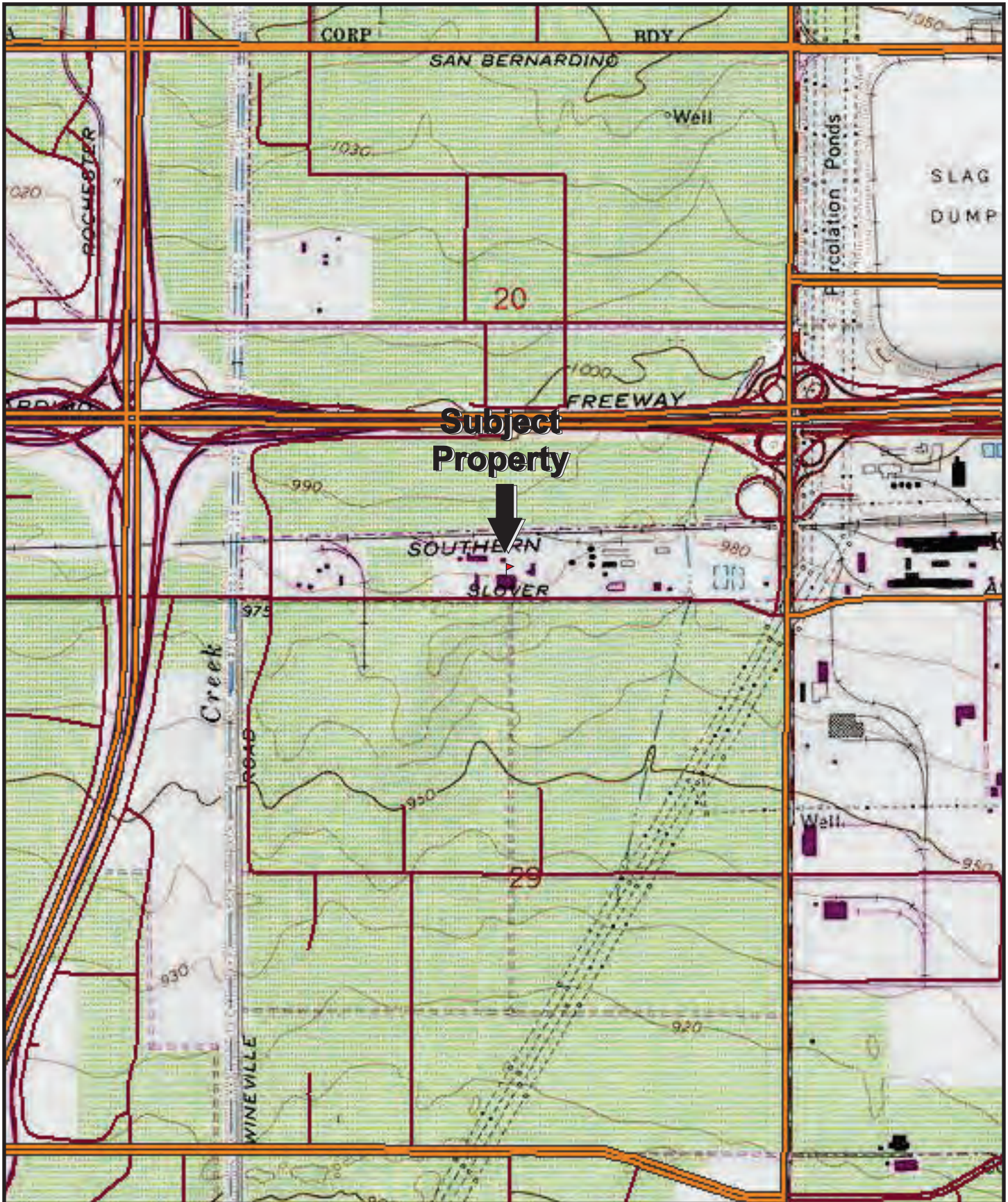
**Legend**



**Sample Location Map**

Figure	Prepared By	Date
3	B. Godbois	August 2016

5355 East Airport Drive  
 Ontario, California 91761



**Subject  
Property**



**PARTNER**

Engineering and Science, Inc.  
2154 Torrance Boulevard, Suite 200  
Torrance, California 90501

Project Number: 16-163550.2

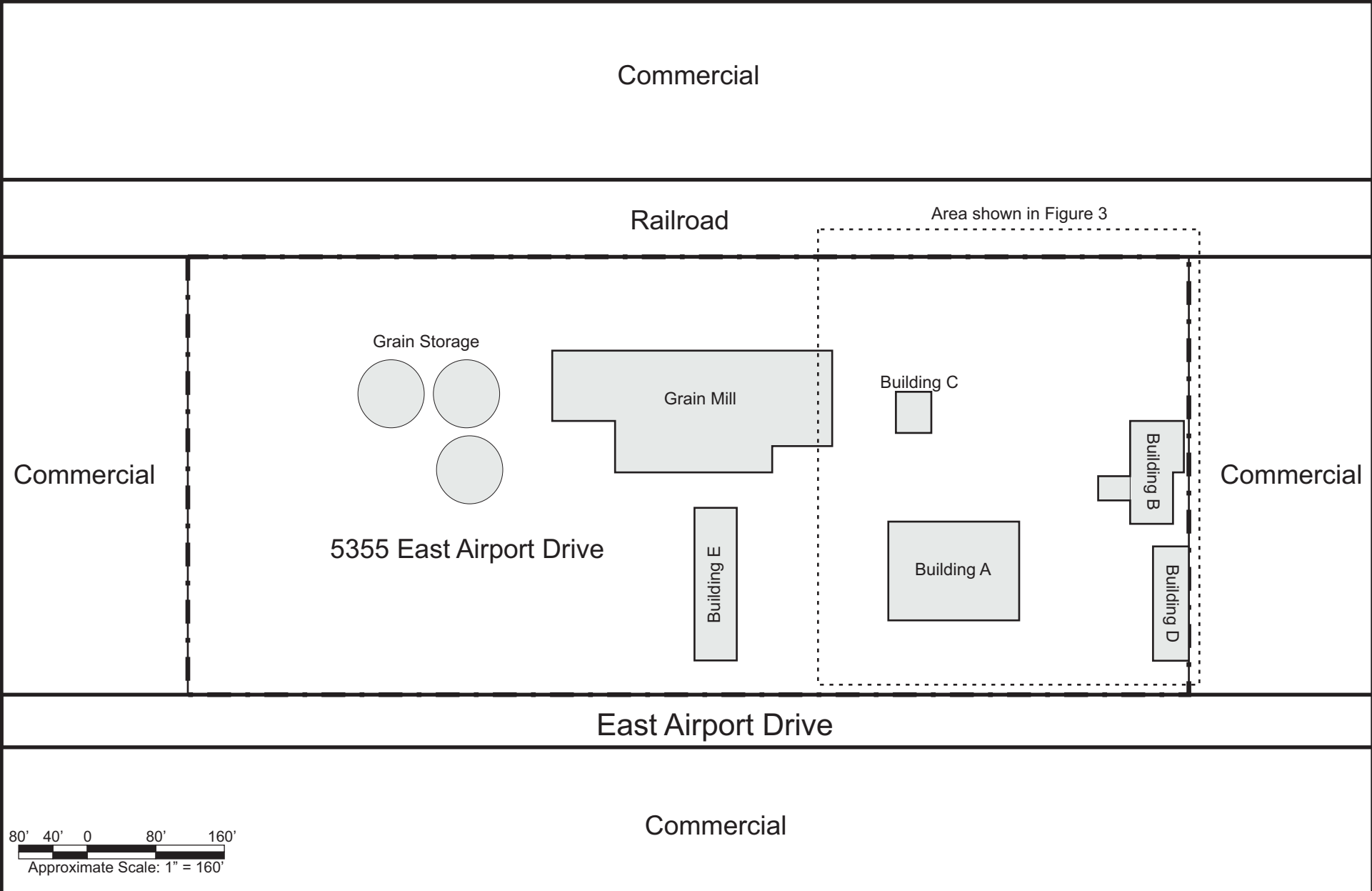


**Legend**

USGS Guasti, California  
Quadrangle  
Version: 1978 Current as of: 1981


**Topographic Map**


Figure	Prepared By	Date
2	B. Godbois	August 2016
5355 East Airport Drive Ontario, California 91761		



**PARTNER**  
Engineering and Science, Inc.  
2154 Torrance Boulevard, Suite 200  
Torrance, California 90501  
Project Number: 16-163550.2

**Legend**

Subject Site 



Site Plan		
Figure	Prepared By	Date
1	B. Godbois	August 2016
5355 East Airport Drive Ontario, California 91761		

## APPENDIX A: BORING LOGS

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Boring Number:		B1		Page 1 of 1	
Location:		East of ASTs		Date Started:	7/21/2016
Site Address:		5355 East Airport Drive		Date Completed:	7/21/2016
		Ontario, California 91761		Depth to Groundwater:	N/A
Project Number:		16-163550.2		Field Technician:	B. Godbois
Drill Rig Type:		Truck Mounted Direct Push		<b>Partner Engineering and Science</b>	
Sampling Equipment:		Acetate Liners, Playstic Syringes		2154 Torrance Boulevard, Suite 200	
Borehole Diameter:		1.5"		Torrance, California 90501	
Depth	Sample	PID	USCS	Description	Notes
1	B1-1	0.7	SM	SILTY SAND: brown, very fine grained, medium dense, damp.	3" concrete at surface.
2					Groundwater was not encountered. Boring terminated at 1 foot bgs. Borehole was backfilled with bentonite chips after sampling.
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

Boring Number:		B2		Page 1 of 1	
Location:		West of Hazardous Waste Storage in Building B		Date Started:	7/21/2016
Site Address:		5355 East Airport Drive		Date Completed:	7/21/2016
		Ontario, California 91761		Depth to Groundwater:	N/A
Project Number:		16-163550.2		Field Technician:	B. Godbois
Drill Rig Type:		Truck Mounted Direct Push		<b>Partner Engineering and Science</b>	
Sampling Equipment:		Acetate Liners, Playstic Syringes		2154 Torrance Boulevard, Suite 200	
Borehole Diameter:		1.5"		Torrance, California 90501	
Depth	Sample	PID	USCS	Description	Notes
1	B2-1	0.7	SM	SILTY SAND: brown, very fine grained, medium dense, damp.	3" concrete at surface.
2					Groundwater was not encountered. Boring terminated at 1 foot bgs. Borehole was backfilled with bentonite chips after sampling.
3					
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21					
22					
23					
24					
25					

Boring Number:		B3		Page 1 of 1	
Location:		Southwest of Former USTs		Date Started:	7/21/2016
Site Address:		5355 East Airport Drive		Date Completed:	7/21/2016
		Ontario, California 91761		Depth to Groundwater:	N/A
Project Number:		16-163550.2		Field Technician:	B. Godbois
Drill Rig Type:		Truck Mounted Direct Push		<b>Partner Engineering and Science</b>	
Sampling Equipment:		Acetate Liners, Playstic Syringes		2154 Torrance Boulevard, Suite 200	
Borehole Diameter:		1.5"		Torrance, California 90501	
Depth	Sample	PID	USCS	Description	Notes
1					3" concrete at surface.
2					
3					
4					
5	B3-5	0.4	SM	SILTY SAND: brown, very fine grained, medium dense, damp.	Soil gas probe installed.
6					
7					
8					
9					
10	B3-10	0.5	SM	SILTY SAND: brown, very fine grained, medium dense, damp.	
11					
12					
13					
14					
15	B3-15	0.2	SM	SILTY SAND: brown, very fine grained, medium dense, damp.	
16					
17					
18					
19					
20	B3-20	0.9	SP	SAND: brown, very fine to fine grained, dense, damp, poorly graded.	
21					
22					
23					
24					
25	B3-25	0.3	SP	SAND: brown, very fine to coarse grained, dense, damp, poorly graded, trace very fine gravel.	Groundwater was not encountered. Boring terminated at 25 foot bgs. Borehole was backfilled with bentonite chips after sampling.



Boring Number:		B4			Page 1 of 1	
Location:		West of Former USTs			Date Started:	7/21/2016
Site Address:		5355 East Airport Drive			Date Completed:	7/21/2016
		Ontario, California 91761			Depth to Groundwater:	N/A
Project Number:		16-163550.2			Field Technician:	B. Godbois
Drill Rig Type:		Truck Mounted Direct Push			<b>Partner Engineering and Science</b>	
Sampling Equipment:		Acetate Liners, Playstic Syringes			2154 Torrance Boulevard, Suite 200	
Borehole Diameter:		1.5"			Torrance, California 90501	
Depth	Sample	PID	USCS	Description	Notes	
1					3" concrete at surface.	
2						
3						
4						
5	B4-5	0.4	SP	SAND: brown, very fine to fine grained, medium dense, damp.	Soil gas probe installed.	
6						
7						
8						
9						
10	B4-10	0.5	SM	SILTY SAND: brown, very fine grained, medium dense, damp.		
11						
12						
13						
14						
15	B4-15	0.2	SM	SILTY SAND: brown, very fine grained, dense, damp.		
16						
17						
18						
19						
20	B4-20	0.9	SP	GRAVELLY SAND: brown, very fine to coarse grained, very dense, damp, poorly graded.	Refusal.	
21					Groundwater was not encountered. Boring terminated at 20 foot bgs due to refusal. Borehole was backfilled with bentonite chips after sampling.	
22						
23						
24						
25						

Boring Number:		B5		Page 1 of 1	
Location:		East of Former USTs		Date Started:	7/21/2016
Site Address:		5355 East Airport Drive		Date Completed:	7/21/2016
		Ontario, California 91761		Depth to Groundwater:	N/A
Project Number:		16-163550.2		Field Technician:	B. Godbois
Drill Rig Type:		Truck Mounted Direct Push		<b>Partner Engineering and Science</b>	
Sampling Equipment:		Acetate Liners, Playstic Syringes		2154 Torrance Boulevard, Suite 200	
Borehole Diameter:		1.5"		Torrance, California 90501	
Depth	Sample	PID	USCS	Description	Notes
1					3" concrete at surface.
2					
3					
4					
5	B5-5	0.3	SP	SAND: brown, very fine grained, medium dense, damp.	Soil gas probe installed.
6					
7					
8					
9					
10	B5-10	0.5	SM	SILTY SAND: brown, very fine grained, medium dense, damp.	
11					
12					
13					
14					
15	B5-15	0.2	SM	SILTY SAND: brown, very fine grained, medium dense, damp.	
16					
17					
18					
19					
20	B5-20	0.4	SP	GRAVELLY SAND: brown, very fine to coarse grained, very dense, damp, poorly graded.	
21					
22					
23					
24					
25	B5-25	0.3	SM	SILTY SAND: brown, very fine grained, medium dense, damp.	Groundwater was not encountered. Boring terminated at 25 foot bgs. Borehole was backfilled with bentonite chips after sampling.

Boring Number:		B6		Page 1 of 1	
Location:		North of Former USTs		Date Started:	7/21/2016
Site Address:		5355 East Airport Drive		Date Completed:	7/21/2016
		Ontario, California 91761		Depth to Groundwater:	N/A
Project Number:		16-163550.2		Field Technician:	B. Godbois
Drill Rig Type:		Truck Mounted Direct Push		<b>Partner Engineering and Science</b>	
Sampling Equipment:		Acetate Liners, Playstic Syringes		2154 Torrance Boulevard, Suite 200	
Borehole Diameter:		1.5"		Torrance, California 90501	
Depth	Sample	PID	USCS	Description	Notes
1					3" concrete at surface.
2					
3					
4					
5	B6-5	0.2	SM	SILTY SAND: brown, very fine grained, medium dense, damp.	Soil gas probe installed.
6					
7					
8					
9					
10	B6-10	0.4	SM	SILTY SAND: brown, very fine grained, medium dense, damp.	
11					
12					
13					
14					
15	B6-15	0.3	SM	SILTY SAND: brown, very fine grained, medium dense, damp.	
16					
17					
18					
19					
20	B6-20	0.9	SP	SAND: brown, very fine to fine grained, dense, damp, poorly graded.	
21					
22					
23					
24					
25	B6-25	0.4	SC	CLAYEY SAND: brown, very fine to coarse grained, stiff, damp, poorly graded, trace very fine gravel.	Groundwater was not encountered. Boring terminated at 25 foot bgs. Borehole was backfilled with bentonite chips after sampling.

Boring Number:		B7			Page 1 of 1	
Location:		East of Septic System			Date Started:	7/21/2016
Site Address:		5355 East Airport Drive			Date Completed:	7/21/2016
		Ontario, California 91761			Depth to Groundwater:	N/A
Project Number:		16-163550.2			Field Technician:	B. Godbois
Drill Rig Type:		Truck Mounted Direct Push			<b>Partner Engineering and Science</b>	
Sampling Equipment:		Acetate Liners, Playstic Syringes			2154 Torrance Boulevard, Suite 200	
Borehole Diameter:		1.5"			Torrance, California 90501	
Depth	Sample	PID	USCS	Description	Notes	
1					3" concrete at surface.	
2						
3						
4						
5	B7-5	0.4	SM	SAND: brown, very fine to fine grained, loose, damp, partly graded.	Soil gas probe installed.	
6						
7						
8						
9						
10	B7-10	0.5	SP	SAND: brown, very fine to medium grained, medium dense, damp.		
11						
12						
13						
14						
15	B7-15	0.6	SP	SAND: brown, very fine to fine grained, loose, damp, trace very fine gravel.		
16					Groundwater was not encountered. Boring terminated at 15 foot bgs. Borehole was backfilled with bentonite chips after sampling.	
17						
18						
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20						
21						
22						
23						
24						
25						

Boring Number:		B8			Page 1 of 1	
Location:		Northwest of Septic System			Date Started:	7/21/2016
Site Address:		5355 East Airport Drive			Date Completed:	7/21/2016
		Ontario, California 91761			Depth to Groundwater:	N/A
Project Number:		16-163550.2			Field Technician:	B. Godbois
Drill Rig Type:		Truck Mounted Direct Push			<b>Partner Engineering and Science</b>	
Sampling Equipment:		Acetate Liners, Playstic Syringes			2154 Torrance Boulevard, Suite 200	
Borehole Diameter:		1.5"			Torrance, California 90501	
Depth	Sample	PID	USCS	Description	Notes	
1					3" concrete at surface.	
2						
3						
4						
5	B8-5	0.7	SM	SAND: brown, very fine to fine grained, loose, damp, partly graded.	Soil gas probe installed.	
6						
7						
8						
9						
10	B8-10	1.2	SM	SILTY SAND: brown, very fine to medium grained, medium dense, damp.		
11						
12						
13						
14						
15	B8-15	0.5	SP	SAND: brown, very fine to coarse grained, medium dense, damp, trace very fine gravel.		
16					Groundwater was not encountered. Boring terminated at 15 foot bgs. Borehole was backfilled with bentonite chips after sampling.	
17						
18						
19						
20						
21						
22						
23						
24						
25						

Boring Number:		B9		Page 1 of 1	
Location:		North-Central Interior of Building A Maintenance Area		Date Started:	7/21/2016
Site Address:		5355 East Airport Drive		Date Completed:	7/21/2016
		Ontario, California 91761		Depth to Groundwater:	N/A
Project Number:		16-163550.2		Field Technician:	B. Godbois
Drill Rig Type:		Truck Mounted Direct Push		<b>Partner Engineering and Science</b>	
Sampling Equipment:		Acetate Liners, Playstic Syringes		2154 Torrance Boulevard, Suite 200	
Borehole Diameter:		1.5"		Torrance, California 90501	
Depth	Sample	PID	USCS	Description	Notes
1	B9-1	0.5	SM	SAND: brown, very fine grained, loose, damp.	3" concrete at surface.
2					Groundwater was not encountered. Boring terminated at 1 foot bgs. Borehole was backfilled with bentonite chips after sampling.
3					
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Boring Number:		B10		Page 1 of 1	
Location:		East of Conveyor Belt		Date Started:	7/21/2016
Site Address:		5355 East Airport Drive		Date Completed:	7/21/2016
		Ontario, California 91761		Depth to Groundwater:	N/A
Project Number:		16-163550.2		Field Technician:	B. Godbois
Drill Rig Type:		Truck Mounted Direct Push		<b>Partner Engineering and Science</b>	
Sampling Equipment:		Acetate Liners, Playstic Syringes		2154 Torrance Boulevard, Suite 200	
Borehole Diameter:		1.5"		Torrance, California 90501	
Depth	Sample	PID	USCS	Description	Notes
1	B10-1	0.6	SM	SAND: brown, very fine grained, loose, damp.	3" concrete at surface.
2					Groundwater was not encountered. Boring terminated at 1 foot bgs. Borehole was backfilled with bentonite chips after sampling.
3					
4					
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23					
24					
25					

Boring Number:		B11		Page 1 of 1	
Location:		West-Central Area of Vehicle Wash Down Area		Date Started:	7/21/2016
Site Address:		5355 East Airport Drive		Date Completed:	7/21/2016
		Ontario, California 91761		Depth to Groundwater:	N/A
Project Number:		16-163550.2		Field Technician:	B. Godbois
Drill Rig Type:		Truck Mounted Direct Push		<b>Partner Engineering and Science</b>	
Sampling Equipment:		Acetate Liners, Playstic Syringes		2154 Torrance Boulevard, Suite 200	
Borehole Diameter:		1.5"		Torrance, California 90501	
Depth	Sample	PID	USCS	Description	Notes
1	B11-1	1.9	SM	SAND: brown, very fine grained, loose, damp.	3" concrete at surface.
2					Groundwater was not encountered. Boring terminated at 1 foot bgs. Borehole was backfilled with bentonite chips after sampling.
3					
4					
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Boring Number:		B12		Page 1 of 1	
Location:		Southeast Area of Railroad Spur		Date Started:	7/21/2016
Site Address:		5355 East Airport Drive		Date Completed:	7/21/2016
		Ontario, California 91761		Depth to Groundwater:	N/A
Project Number:		16-163550.2		Field Technician:	B. Godbois
Drill Rig Type:		Truck Mounted Direct Push		<b>Partner Engineering and Science</b>	
Sampling Equipment:		Acetate Liners, Playstic Syringes		2154 Torrance Boulevard, Suite 200	
Borehole Diameter:		1.5"		Torrance, California 90501	
Depth	Sample	PID	USCS	Description	Notes
1	B12-1	1.6	SM	SAND: brown, very fine grained, loose, damp.	3" concrete at surface.
2					Groundwater was not encountered. Boring terminated at 1 foot bgs. Borehole was backfilled with bentonite chips after sampling.
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## **APPENDIX B: LABORATORY ANALYTICAL REPORTS**

---



25712 Commercentre Drive  
Lake Forest, California 92630  
949.297.5020 Phone  
949.297.5027 Fax

25 July 2016

Samantha Fujita  
Partner Engineering & Science, Inc.--Tor  
2154 Torrance Blvd., Suite 20  
Torrance, CA 90501  
RE: 5355 East Airport Drive

Enclosed are the results of analyses for samples received by the laboratory on 07/22/16 10:53. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Daniel Chavez  
Project Manager



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Partner Engineering & Science, Inc.--Tor  
 2154 Torrance Blvd., Suite 20  
 Torrance CA, 90501

Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

**Reported:**  
 07/25/16 17:06

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B1-1	T161654-01	Soil	07/21/16 08:00	07/22/16 10:53
B2-1	T161654-02	Soil	07/21/16 08:10	07/22/16 10:53
B3-15	T161654-05	Soil	07/21/16 08:30	07/22/16 10:53
B4-10	T161654-09	Soil	07/21/16 09:25	07/22/16 10:53
B5-15	T161654-14	Soil	07/21/16 10:15	07/22/16 10:53
B6-10	T161654-18	Soil	07/21/16 11:25	07/22/16 10:53
B7-10	T161654-24	Soil	07/21/16 12:40	07/22/16 10:53
B8-10	T161654-28	Soil	07/21/16 13:10	07/22/16 10:53
B9-1	T161654-30	Soil	07/21/16 14:20	07/22/16 10:53
B10-1	T161654-31	Soil	07/21/16 14:30	07/22/16 10:53
B11-1	T161654-32	Soil	07/21/16 14:40	07/22/16 10:53
B12-1	T161654-33	Soil	07/21/16 14:50	07/22/16 10:53

SunStar Laboratories, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Daniel Chavez, Project Manager



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Partner Engineering & Science, Inc.--Tor  
2154 Torrance Blvd., Suite 20  
Torrance CA, 90501

Project: 5355 East Airport Drive  
Project Number: 16-163550.2  
Project Manager: Samantha Fujita

Reported:  
07/25/16 17:06

**DETECTIONS SUMMARY**

**Sample ID:** B1-1 **Laboratory ID:** T161654-01

---

No Results Detected

**Sample ID:** B2-1 **Laboratory ID:** T161654-02

---

No Results Detected

**Sample ID:** B3-15 **Laboratory ID:** T161654-05

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No Results Detected

**Sample ID:** B4-10 **Laboratory ID:** T161654-09

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No Results Detected

**Sample ID:** B5-15 **Laboratory ID:** T161654-14

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No Results Detected

**Sample ID:** B6-10 **Laboratory ID:** T161654-18

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No Results Detected

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Torrance CA, 90501

Project: 5355 East Airport Drive  
Project Number: 16-163550.2  
Project Manager: Samantha Fujita

Reported:  
07/25/16 17:06

**Sample ID:** B7-10

**Laboratory ID:** T161654-24

No Results Detected

**Sample ID:** B8-10

**Laboratory ID:** T161654-28

No Results Detected

**Sample ID:** B9-1

**Laboratory ID:** T161654-30

No Results Detected

**Sample ID:** B10-1

**Laboratory ID:** T161654-31

No Results Detected

**Sample ID:** B11-1

**Laboratory ID:** T161654-32

No Results Detected

**Sample ID:** B12-1

**Laboratory ID:** T161654-33

No Results Detected

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



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 2154 Torrance Blvd., Suite 20  
 Torrance CA, 90501

Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 17:06

**B1-1**  
**T161654-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	6072222	07/22/16	07/23/16	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: <i>p</i> -Terphenyl		108 %	65-135		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Bromobenzene	ND	0.0050	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
Bromochloromethane	ND	0.0050	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0050	"	"	"	"	"	"	
Bromoform	ND	0.0050	"	"	"	"	"	"	
Bromomethane	ND	0.0050	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0050	"	"	"	"	"	"	
Chlorobenzene	ND	0.0050	"	"	"	"	"	"	
Chloroethane	ND	0.0050	"	"	"	"	"	"	
Chloroform	ND	0.0050	"	"	"	"	"	"	
Chloromethane	ND	0.0050	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0050	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0050	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.010	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0050	"	"	"	"	"	"	
Dibromomethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0050	"	"	"	"	"	"	

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



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Partner Engineering & Science, Inc.--Tor  
 2154 Torrance Blvd., Suite 20  
 Torrance CA, 90501

Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 17:06

**B1-1**  
**T161654-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1,1-Dichloroethene	ND	0.0050	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
cis-1,2-Dichloroethene	ND	0.0050	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.0050	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.0050	"	"	"	"	"	"	
Isopropylbenzene	ND	0.0050	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.0050	"	"	"	"	"	"	
Methylene chloride	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0050	"	"	"	"	"	"	
n-Propylbenzene	ND	0.0050	"	"	"	"	"	"	
Styrene	ND	0.0050	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.0050	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.0050	"	"	"	"	"	"	
Tetrachloroethene	ND	0.0050	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0050	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.0050	"	"	"	"	"	"	
Trichloroethene	ND	0.0050	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0050	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Vinyl chloride	ND	0.0050	"	"	"	"	"	"	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	

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**B1-1**  
**T161654-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Ethylbenzene	ND	0.0050	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
m,p-Xylene	ND	0.010	"	"	"	"	"	"	
o-Xylene	ND	0.0050	"	"	"	"	"	"	
Surrogate: Toluene-d8		108 %	85.5-116		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		110 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		95.5 %	95.7-135		"	"	"	"	S-GC

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Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 17:06

**B2-1**  
**T161654-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	6072222	07/22/16	07/23/16	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: <i>p</i> -Terphenyl		92.5 %	65-135		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Bromobenzene	ND	0.0044	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
Bromochloromethane	ND	0.0044	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0044	"	"	"	"	"	"	
Bromoform	ND	0.0044	"	"	"	"	"	"	
Bromomethane	ND	0.0044	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0044	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0044	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0044	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0044	"	"	"	"	"	"	
Chlorobenzene	ND	0.0044	"	"	"	"	"	"	
Chloroethane	ND	0.0044	"	"	"	"	"	"	
Chloroform	ND	0.0044	"	"	"	"	"	"	
Chloromethane	ND	0.0044	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0044	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0044	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0044	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.0087	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0044	"	"	"	"	"	"	
Dibromomethane	ND	0.0044	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0044	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0044	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0044	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0044	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0044	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0044	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0044	"	"	"	"	"	"	

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 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 17:06

**B2-1**  
**T161654-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
cis-1,2-Dichloroethene	ND	0.0044	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
trans-1,2-Dichloroethene	ND	0.0044	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0044	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.0044	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0044	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0044	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.0044	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.0044	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.0044	"	"	"	"	"	"	
Isopropylbenzene	ND	0.0044	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.0044	"	"	"	"	"	"	
Methylene chloride	ND	0.0044	"	"	"	"	"	"	
Naphthalene	ND	0.0044	"	"	"	"	"	"	
n-Propylbenzene	ND	0.0044	"	"	"	"	"	"	
Styrene	ND	0.0044	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.0044	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.0044	"	"	"	"	"	"	
Tetrachloroethene	ND	0.0044	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.0044	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.0044	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0044	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.0044	"	"	"	"	"	"	
Trichloroethene	ND	0.0044	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0044	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.0044	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0044	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0044	"	"	"	"	"	"	
Vinyl chloride	ND	0.0044	"	"	"	"	"	"	
Benzene	ND	0.0044	"	"	"	"	"	"	
Toluene	ND	0.0044	"	"	"	"	"	"	
Ethylbenzene	ND	0.0044	"	"	"	"	"	"	

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**B2-1**  
**T161654-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

m,p-Xylene	ND	0.0087	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
o-Xylene	ND	0.0044	"	"	"	"	"	"	
Surrogate: Toluene-d8		109 %	85.5-116		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		92.7 %	95.7-135		"	"	"	"	S-GC

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Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 17:06

**B3-15**  
**T161654-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	6072222	07/22/16	07/23/16	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: <i>p</i> -Terphenyl		72.7 %	65-135		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Bromobenzene	ND	0.0043	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
Bromochloromethane	ND	0.0043	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0043	"	"	"	"	"	"	
Bromoform	ND	0.0043	"	"	"	"	"	"	
Bromomethane	ND	0.0043	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0043	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0043	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0043	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0043	"	"	"	"	"	"	
Chlorobenzene	ND	0.0043	"	"	"	"	"	"	
Chloroethane	ND	0.0043	"	"	"	"	"	"	
Chloroform	ND	0.0043	"	"	"	"	"	"	
Chloromethane	ND	0.0043	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0043	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0043	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0043	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.0086	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0043	"	"	"	"	"	"	
Dibromomethane	ND	0.0043	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0043	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0043	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0043	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0043	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0043	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0043	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0043	"	"	"	"	"	"	

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 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
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**B3-15**  
**T161654-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
cis-1,2-Dichloroethene	ND	0.0043	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
trans-1,2-Dichloroethene	ND	0.0043	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0043	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.0043	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0043	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0043	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.0043	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.0043	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.0043	"	"	"	"	"	"	
Isopropylbenzene	ND	0.0043	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.0043	"	"	"	"	"	"	
Methylene chloride	ND	0.0043	"	"	"	"	"	"	
Naphthalene	ND	0.0043	"	"	"	"	"	"	
n-Propylbenzene	ND	0.0043	"	"	"	"	"	"	
Styrene	ND	0.0043	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.0043	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.0043	"	"	"	"	"	"	
Tetrachloroethene	ND	0.0043	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.0043	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.0043	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0043	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.0043	"	"	"	"	"	"	
Trichloroethene	ND	0.0043	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0043	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.0043	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0043	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0043	"	"	"	"	"	"	
Vinyl chloride	ND	0.0043	"	"	"	"	"	"	
Benzene	ND	0.0043	"	"	"	"	"	"	
Toluene	ND	0.0043	"	"	"	"	"	"	
Ethylbenzene	ND	0.0043	"	"	"	"	"	"	

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**B3-15**  
**T161654-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

m,p-Xylene	ND	0.0086	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
o-Xylene	ND	0.0043	"	"	"	"	"	"	"
Surrogate: Toluene-d8		109 %	85.5-116		"	"	"	"	"
Surrogate: 4-Bromofluorobenzene		107 %	81.2-123		"	"	"	"	"
Surrogate: Dibromofluoromethane		97.9 %	95.7-135		"	"	"	"	"

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Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
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**B4-10**  
**T161654-09 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	6072222	07/22/16	07/25/16	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: <i>p</i> -Terphenyl		101 %	65-135		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Bromobenzene	ND	0.0044	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
Bromochloromethane	ND	0.0044	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0044	"	"	"	"	"	"	
Bromoform	ND	0.0044	"	"	"	"	"	"	
Bromomethane	ND	0.0044	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0044	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0044	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0044	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0044	"	"	"	"	"	"	
Chlorobenzene	ND	0.0044	"	"	"	"	"	"	
Chloroethane	ND	0.0044	"	"	"	"	"	"	
Chloroform	ND	0.0044	"	"	"	"	"	"	
Chloromethane	ND	0.0044	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0044	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0044	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0044	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.0088	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0044	"	"	"	"	"	"	
Dibromomethane	ND	0.0044	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0044	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0044	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0044	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0044	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0044	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0044	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0044	"	"	"	"	"	"	

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Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
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**B4-10**  
**T161654-09 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
cis-1,2-Dichloroethene	ND	0.0044	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
trans-1,2-Dichloroethene	ND	0.0044	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0044	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.0044	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0044	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0044	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.0044	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.0044	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.0044	"	"	"	"	"	"	
Isopropylbenzene	ND	0.0044	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.0044	"	"	"	"	"	"	
Methylene chloride	ND	0.0044	"	"	"	"	"	"	
Naphthalene	ND	0.0044	"	"	"	"	"	"	
n-Propylbenzene	ND	0.0044	"	"	"	"	"	"	
Styrene	ND	0.0044	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.0044	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.0044	"	"	"	"	"	"	
Tetrachloroethene	ND	0.0044	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.0044	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.0044	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0044	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.0044	"	"	"	"	"	"	
Trichloroethene	ND	0.0044	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0044	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.0044	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0044	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0044	"	"	"	"	"	"	
Vinyl chloride	ND	0.0044	"	"	"	"	"	"	
Benzene	ND	0.0044	"	"	"	"	"	"	
Toluene	ND	0.0044	"	"	"	"	"	"	
Ethylbenzene	ND	0.0044	"	"	"	"	"	"	

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Partner Engineering & Science, Inc.--Tor 2154 Torrance Blvd., Suite 20 Torrance CA, 90501	Project: 5355 East Airport Drive Project Number: 16-163550.2 Project Manager: Samantha Fujita	Reported: 07/25/16 17:06
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**B4-10**  
**T161654-09 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

m,p-Xylene	ND	0.0088	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
o-Xylene	ND	0.0044	"	"	"	"	"	"	
Surrogate: Toluene-d8		110 %	85.5-116		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		113 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		91.4 %	95.7-135		"	"	"	"	S-GC

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Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 17:06

**B5-15**  
**T161654-14 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	6072222	07/22/16	07/25/16	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: <i>p</i> -Terphenyl		97.0 %	65-135		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Bromobenzene	ND	0.0041	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
Bromochloromethane	ND	0.0041	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0041	"	"	"	"	"	"	
Bromoform	ND	0.0041	"	"	"	"	"	"	
Bromomethane	ND	0.0041	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0041	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0041	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0041	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0041	"	"	"	"	"	"	
Chlorobenzene	ND	0.0041	"	"	"	"	"	"	
Chloroethane	ND	0.0041	"	"	"	"	"	"	
Chloroform	ND	0.0041	"	"	"	"	"	"	
Chloromethane	ND	0.0041	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0041	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0041	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0041	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.0082	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0041	"	"	"	"	"	"	
Dibromomethane	ND	0.0041	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0041	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0041	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0041	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0041	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0041	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0041	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0041	"	"	"	"	"	"	

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Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 17:06

**B5-15**  
**T161654-14 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
cis-1,2-Dichloroethene	ND	0.0041	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
trans-1,2-Dichloroethene	ND	0.0041	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0041	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.0041	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0041	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0041	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.0041	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.0041	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.0041	"	"	"	"	"	"	
Isopropylbenzene	ND	0.0041	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.0041	"	"	"	"	"	"	
Methylene chloride	ND	0.0041	"	"	"	"	"	"	
Naphthalene	ND	0.0041	"	"	"	"	"	"	
n-Propylbenzene	ND	0.0041	"	"	"	"	"	"	
Styrene	ND	0.0041	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.0041	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.0041	"	"	"	"	"	"	
Tetrachloroethene	ND	0.0041	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.0041	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.0041	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0041	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.0041	"	"	"	"	"	"	
Trichloroethene	ND	0.0041	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0041	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.0041	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0041	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0041	"	"	"	"	"	"	
Vinyl chloride	ND	0.0041	"	"	"	"	"	"	
Benzene	ND	0.0041	"	"	"	"	"	"	
Toluene	ND	0.0041	"	"	"	"	"	"	
Ethylbenzene	ND	0.0041	"	"	"	"	"	"	

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**B5-15**  
**T161654-14 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

m,p-Xylene	ND	0.0082	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
o-Xylene	ND	0.0041	"	"	"	"	"	"	"
Surrogate: Toluene-d8		108 %	85.5-116		"	"	"	"	"
Surrogate: 4-Bromofluorobenzene		102 %	81.2-123		"	"	"	"	"
Surrogate: Dibromofluoromethane		101 %	95.7-135		"	"	"	"	"

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Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
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**B6-10**  
**T161654-18 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	6072222	07/22/16	07/25/16	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: <i>p</i> -Terphenyl		96.9 %	65-135		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Bromobenzene	ND	0.0050	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
Bromochloromethane	ND	0.0050	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0050	"	"	"	"	"	"	
Bromoform	ND	0.0050	"	"	"	"	"	"	
Bromomethane	ND	0.0050	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0050	"	"	"	"	"	"	
Chlorobenzene	ND	0.0050	"	"	"	"	"	"	
Chloroethane	ND	0.0050	"	"	"	"	"	"	
Chloroform	ND	0.0050	"	"	"	"	"	"	
Chloromethane	ND	0.0050	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0050	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0050	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.010	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0050	"	"	"	"	"	"	
Dibromomethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0050	"	"	"	"	"	"	

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Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
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**B6-10**  
**T161654-18 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
cis-1,2-Dichloroethene	ND	0.0050	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
trans-1,2-Dichloroethene	ND	0.0050	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.0050	"	"	"	"	"	"	
Isopropylbenzene	ND	0.0050	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.0050	"	"	"	"	"	"	
Methylene chloride	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0050	"	"	"	"	"	"	
n-Propylbenzene	ND	0.0050	"	"	"	"	"	"	
Styrene	ND	0.0050	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.0050	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.0050	"	"	"	"	"	"	
Tetrachloroethene	ND	0.0050	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0050	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.0050	"	"	"	"	"	"	
Trichloroethene	ND	0.0050	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0050	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Vinyl chloride	ND	0.0050	"	"	"	"	"	"	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	

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**B6-10**  
**T161654-18 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

m,p-Xylene	ND	0.010	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
o-Xylene	ND	0.0050	"	"	"	"	"	"	"
Surrogate: Toluene-d8		107 %	85.5-116		"	"	"	"	"
Surrogate: 4-Bromofluorobenzene		102 %	81.2-123		"	"	"	"	"
Surrogate: Dibromofluoromethane		96.0 %	95.7-135		"	"	"	"	"

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Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
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**B7-10**  
**T161654-24 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	6072222	07/22/16	07/25/16	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: <i>p</i> -Terphenyl		87.5 %	65-135		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Bromobenzene	ND	0.0043	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
Bromochloromethane	ND	0.0043	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0043	"	"	"	"	"	"	
Bromoform	ND	0.0043	"	"	"	"	"	"	
Bromomethane	ND	0.0043	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0043	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0043	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0043	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0043	"	"	"	"	"	"	
Chlorobenzene	ND	0.0043	"	"	"	"	"	"	
Chloroethane	ND	0.0043	"	"	"	"	"	"	
Chloroform	ND	0.0043	"	"	"	"	"	"	
Chloromethane	ND	0.0043	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0043	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0043	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0043	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.0087	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0043	"	"	"	"	"	"	
Dibromomethane	ND	0.0043	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0043	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0043	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0043	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0043	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0043	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0043	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0043	"	"	"	"	"	"	

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 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

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**B7-10**  
**T161654-24 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
cis-1,2-Dichloroethene	ND	0.0043	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
trans-1,2-Dichloroethene	ND	0.0043	"	"	"	"	"	"	"
1,2-Dichloropropane	ND	0.0043	"	"	"	"	"	"	"
1,3-Dichloropropane	ND	0.0043	"	"	"	"	"	"	"
2,2-Dichloropropane	ND	0.0043	"	"	"	"	"	"	"
1,1-Dichloropropene	ND	0.0043	"	"	"	"	"	"	"
cis-1,3-Dichloropropene	ND	0.0043	"	"	"	"	"	"	"
trans-1,3-Dichloropropene	ND	0.0043	"	"	"	"	"	"	"
Hexachlorobutadiene	ND	0.0043	"	"	"	"	"	"	"
Isopropylbenzene	ND	0.0043	"	"	"	"	"	"	"
p-Isopropyltoluene	ND	0.0043	"	"	"	"	"	"	"
Methylene chloride	ND	0.0043	"	"	"	"	"	"	"
Naphthalene	ND	0.0043	"	"	"	"	"	"	"
n-Propylbenzene	ND	0.0043	"	"	"	"	"	"	"
Styrene	ND	0.0043	"	"	"	"	"	"	"
1,1,2,2-Tetrachloroethane	ND	0.0043	"	"	"	"	"	"	"
1,1,1,2-Tetrachloroethane	ND	0.0043	"	"	"	"	"	"	"
Tetrachloroethene	ND	0.0043	"	"	"	"	"	"	"
1,2,3-Trichlorobenzene	ND	0.0043	"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	0.0043	"	"	"	"	"	"	"
1,1,2-Trichloroethane	ND	0.0043	"	"	"	"	"	"	"
1,1,1-Trichloroethane	ND	0.0043	"	"	"	"	"	"	"
Trichloroethene	ND	0.0043	"	"	"	"	"	"	"
Trichlorofluoromethane	ND	0.0043	"	"	"	"	"	"	"
1,2,3-Trichloropropane	ND	0.0043	"	"	"	"	"	"	"
1,3,5-Trimethylbenzene	ND	0.0043	"	"	"	"	"	"	"
1,2,4-Trimethylbenzene	ND	0.0043	"	"	"	"	"	"	"
Vinyl chloride	ND	0.0043	"	"	"	"	"	"	"
Benzene	ND	0.0043	"	"	"	"	"	"	"
Toluene	ND	0.0043	"	"	"	"	"	"	"
Ethylbenzene	ND	0.0043	"	"	"	"	"	"	"

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**B7-10**  
**T161654-24 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

m,p-Xylene	ND	0.0087	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
o-Xylene	ND	0.0043	"	"	"	"	"	"	"
Surrogate: Toluene-d8		106 %	85.5-116		"	"	"	"	"
Surrogate: 4-Bromofluorobenzene		99.9 %	81.2-123		"	"	"	"	"
Surrogate: Dibromofluoromethane		101 %	95.7-135		"	"	"	"	"

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Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 17:06

**B8-10**  
**T161654-28 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	6072222	07/22/16	07/25/16	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: <i>p</i> -Terphenyl		83.5 %	65-135		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Bromobenzene	ND	0.0044	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
Bromochloromethane	ND	0.0044	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0044	"	"	"	"	"	"	
Bromoform	ND	0.0044	"	"	"	"	"	"	
Bromomethane	ND	0.0044	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0044	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0044	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0044	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0044	"	"	"	"	"	"	
Chlorobenzene	ND	0.0044	"	"	"	"	"	"	
Chloroethane	ND	0.0044	"	"	"	"	"	"	
Chloroform	ND	0.0044	"	"	"	"	"	"	
Chloromethane	ND	0.0044	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0044	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0044	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0044	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.0089	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0044	"	"	"	"	"	"	
Dibromomethane	ND	0.0044	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0044	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0044	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0044	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0044	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0044	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0044	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0044	"	"	"	"	"	"	

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Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
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**B8-10**  
**T161654-28 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
cis-1,2-Dichloroethene	ND	0.0044	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
trans-1,2-Dichloroethene	ND	0.0044	"	"	"	"	"	"	"
1,2-Dichloropropane	ND	0.0044	"	"	"	"	"	"	"
1,3-Dichloropropane	ND	0.0044	"	"	"	"	"	"	"
2,2-Dichloropropane	ND	0.0044	"	"	"	"	"	"	"
1,1-Dichloropropene	ND	0.0044	"	"	"	"	"	"	"
cis-1,3-Dichloropropene	ND	0.0044	"	"	"	"	"	"	"
trans-1,3-Dichloropropene	ND	0.0044	"	"	"	"	"	"	"
Hexachlorobutadiene	ND	0.0044	"	"	"	"	"	"	"
Isopropylbenzene	ND	0.0044	"	"	"	"	"	"	"
p-Isopropyltoluene	ND	0.0044	"	"	"	"	"	"	"
Methylene chloride	ND	0.0044	"	"	"	"	"	"	"
Naphthalene	ND	0.0044	"	"	"	"	"	"	"
n-Propylbenzene	ND	0.0044	"	"	"	"	"	"	"
Styrene	ND	0.0044	"	"	"	"	"	"	"
1,1,2,2-Tetrachloroethane	ND	0.0044	"	"	"	"	"	"	"
1,1,1,2-Tetrachloroethane	ND	0.0044	"	"	"	"	"	"	"
Tetrachloroethene	ND	0.0044	"	"	"	"	"	"	"
1,2,3-Trichlorobenzene	ND	0.0044	"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	0.0044	"	"	"	"	"	"	"
1,1,2-Trichloroethane	ND	0.0044	"	"	"	"	"	"	"
1,1,1-Trichloroethane	ND	0.0044	"	"	"	"	"	"	"
Trichloroethene	ND	0.0044	"	"	"	"	"	"	"
Trichlorofluoromethane	ND	0.0044	"	"	"	"	"	"	"
1,2,3-Trichloropropane	ND	0.0044	"	"	"	"	"	"	"
1,3,5-Trimethylbenzene	ND	0.0044	"	"	"	"	"	"	"
1,2,4-Trimethylbenzene	ND	0.0044	"	"	"	"	"	"	"
Vinyl chloride	ND	0.0044	"	"	"	"	"	"	"
Benzene	ND	0.0044	"	"	"	"	"	"	"
Toluene	ND	0.0044	"	"	"	"	"	"	"
Ethylbenzene	ND	0.0044	"	"	"	"	"	"	"

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**B8-10**  
**T161654-28 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

m,p-Xylene	ND	0.0089	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
o-Xylene	ND	0.0044	"	"	"	"	"	"	
Surrogate: Toluene-d8		110 %	85.5-116		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	81.2-123		"	"	"	"	
Surrogate: Dibromofluoromethane		85.0 %	95.7-135		"	"	"	"	S-GC

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Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
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**B9-1**  
**T161654-30 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	6072222	07/22/16	07/25/16	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: <i>p</i> -Terphenyl		85.1 %	65-135		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Bromobenzene	ND	0.0050	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
Bromochloromethane	ND	0.0050	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0050	"	"	"	"	"	"	
Bromoform	ND	0.0050	"	"	"	"	"	"	
Bromomethane	ND	0.0050	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0050	"	"	"	"	"	"	
Chlorobenzene	ND	0.0050	"	"	"	"	"	"	
Chloroethane	ND	0.0050	"	"	"	"	"	"	
Chloroform	ND	0.0050	"	"	"	"	"	"	
Chloromethane	ND	0.0050	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0050	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0050	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.010	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0050	"	"	"	"	"	"	
Dibromomethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0050	"	"	"	"	"	"	

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Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
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**B9-1**  
**T161654-30 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
cis-1,2-Dichloroethene	ND	0.0050	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
trans-1,2-Dichloroethene	ND	0.0050	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.0050	"	"	"	"	"	"	
Isopropylbenzene	ND	0.0050	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.0050	"	"	"	"	"	"	
Methylene chloride	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0050	"	"	"	"	"	"	
n-Propylbenzene	ND	0.0050	"	"	"	"	"	"	
Styrene	ND	0.0050	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.0050	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.0050	"	"	"	"	"	"	
Tetrachloroethene	ND	0.0050	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0050	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.0050	"	"	"	"	"	"	
Trichloroethene	ND	0.0050	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0050	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Vinyl chloride	ND	0.0050	"	"	"	"	"	"	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	

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**B9-1**  
**T161654-30 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

m,p-Xylene	ND	0.010	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
o-Xylene	ND	0.0050	"	"	"	"	"	"	"
Surrogate: Toluene-d8		102 %	85.5-116		"	"	"	"	"
Surrogate: 4-Bromofluorobenzene		91.5 %	81.2-123		"	"	"	"	"
Surrogate: Dibromofluoromethane		103 %	95.7-135		"	"	"	"	"

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Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 17:06

**B10-1**  
**T161654-31 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	6072222	07/22/16	07/23/16	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: <i>p</i> -Terphenyl		79.4 %	65-135		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Bromobenzene	ND	0.0050	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
Bromochloromethane	ND	0.0050	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0050	"	"	"	"	"	"	
Bromoform	ND	0.0050	"	"	"	"	"	"	
Bromomethane	ND	0.0050	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0050	"	"	"	"	"	"	
Chlorobenzene	ND	0.0050	"	"	"	"	"	"	
Chloroethane	ND	0.0050	"	"	"	"	"	"	
Chloroform	ND	0.0050	"	"	"	"	"	"	
Chloromethane	ND	0.0050	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0050	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0050	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.010	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0050	"	"	"	"	"	"	
Dibromomethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0050	"	"	"	"	"	"	

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



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Partner Engineering & Science, Inc.--Tor  
 2154 Torrance Blvd., Suite 20  
 Torrance CA, 90501

Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 17:06

**B10-1**  
**T161654-31 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
cis-1,2-Dichloroethene	ND	0.0050	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
trans-1,2-Dichloroethene	ND	0.0050	"	"	"	"	"	"	"
1,2-Dichloropropane	ND	0.0050	"	"	"	"	"	"	"
1,3-Dichloropropane	ND	0.0050	"	"	"	"	"	"	"
2,2-Dichloropropane	ND	0.0050	"	"	"	"	"	"	"
1,1-Dichloropropene	ND	0.0050	"	"	"	"	"	"	"
cis-1,3-Dichloropropene	ND	0.0050	"	"	"	"	"	"	"
trans-1,3-Dichloropropene	ND	0.0050	"	"	"	"	"	"	"
Hexachlorobutadiene	ND	0.0050	"	"	"	"	"	"	"
Isopropylbenzene	ND	0.0050	"	"	"	"	"	"	"
p-Isopropyltoluene	ND	0.0050	"	"	"	"	"	"	"
Methylene chloride	ND	0.0050	"	"	"	"	"	"	"
Naphthalene	ND	0.0050	"	"	"	"	"	"	"
n-Propylbenzene	ND	0.0050	"	"	"	"	"	"	"
Styrene	ND	0.0050	"	"	"	"	"	"	"
1,1,2,2-Tetrachloroethane	ND	0.0050	"	"	"	"	"	"	"
1,1,1,2-Tetrachloroethane	ND	0.0050	"	"	"	"	"	"	"
Tetrachloroethene	ND	0.0050	"	"	"	"	"	"	"
1,2,3-Trichlorobenzene	ND	0.0050	"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	0.0050	"	"	"	"	"	"	"
1,1,2-Trichloroethane	ND	0.0050	"	"	"	"	"	"	"
1,1,1-Trichloroethane	ND	0.0050	"	"	"	"	"	"	"
Trichloroethene	ND	0.0050	"	"	"	"	"	"	"
Trichlorofluoromethane	ND	0.0050	"	"	"	"	"	"	"
1,2,3-Trichloropropane	ND	0.0050	"	"	"	"	"	"	"
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	"
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	"
Vinyl chloride	ND	0.0050	"	"	"	"	"	"	"
Benzene	ND	0.0050	"	"	"	"	"	"	"
Toluene	ND	0.0050	"	"	"	"	"	"	"
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	"

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Partner Engineering & Science, Inc.--Tor 2154 Torrance Blvd., Suite 20 Torrance CA, 90501	Project: 5355 East Airport Drive Project Number: 16-163550.2 Project Manager: Samantha Fujita	Reported: 07/25/16 17:06
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**B10-1**  
**T161654-31 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

m,p-Xylene	ND	0.010	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
o-Xylene	ND	0.0050	"	"	"	"	"	"	"
Surrogate: Toluene-d8		105 %	85.5-116		"	"	"	"	"
Surrogate: 4-Bromofluorobenzene		91.8 %	81.2-123		"	"	"	"	"
Surrogate: Dibromofluoromethane		99.6 %	95.7-135		"	"	"	"	"

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Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 17:06

**B11-1**  
**T161654-32 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	6072222	07/22/16	07/23/16	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: <i>p</i> -Terphenyl		84.6 %	65-135		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Bromobenzene	ND	0.0050	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
Bromochloromethane	ND	0.0050	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0050	"	"	"	"	"	"	
Bromoform	ND	0.0050	"	"	"	"	"	"	
Bromomethane	ND	0.0050	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0050	"	"	"	"	"	"	
Chlorobenzene	ND	0.0050	"	"	"	"	"	"	
Chloroethane	ND	0.0050	"	"	"	"	"	"	
Chloroform	ND	0.0050	"	"	"	"	"	"	
Chloromethane	ND	0.0050	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0050	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0050	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.010	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0050	"	"	"	"	"	"	
Dibromomethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0050	"	"	"	"	"	"	

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 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 17:06

**B11-1**  
**T161654-32 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
cis-1,2-Dichloroethene	ND	0.0050	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
trans-1,2-Dichloroethene	ND	0.0050	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.0050	"	"	"	"	"	"	
Isopropylbenzene	ND	0.0050	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.0050	"	"	"	"	"	"	
Methylene chloride	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0050	"	"	"	"	"	"	
n-Propylbenzene	ND	0.0050	"	"	"	"	"	"	
Styrene	ND	0.0050	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.0050	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.0050	"	"	"	"	"	"	
Tetrachloroethene	ND	0.0050	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0050	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.0050	"	"	"	"	"	"	
Trichloroethene	ND	0.0050	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0050	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Vinyl chloride	ND	0.0050	"	"	"	"	"	"	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	

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Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 17:06

**B11-1**  
**T161654-32 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

m,p-Xylene	ND	0.010	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
o-Xylene	ND	0.0050	"	"	"	"	"	"	"
Surrogate: Toluene-d8		92.1 %	85.5-116		"	"	"	"	"
Surrogate: 4-Bromofluorobenzene		84.6 %	81.2-123		"	"	"	"	"
Surrogate: Dibromofluoromethane		113 %	95.7-135		"	"	"	"	"

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 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 17:06

**B12-1**  
**T161654-33 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Extractable Petroleum Hydrocarbons by 8015C**

C6-C12 (GRO)	ND	10	mg/kg	1	6072222	07/22/16	07/23/16	EPA 8015C	
C13-C28 (DRO)	ND	10	"	"	"	"	"	"	
C29-C40 (MORO)	ND	10	"	"	"	"	"	"	
Surrogate: <i>p</i> -Terphenyl		87.4 %	65-135		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Bromobenzene	ND	0.0050	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
Bromochloromethane	ND	0.0050	"	"	"	"	"	"	
Bromodichloromethane	ND	0.0050	"	"	"	"	"	"	
Bromoform	ND	0.0050	"	"	"	"	"	"	
Bromomethane	ND	0.0050	"	"	"	"	"	"	
n-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.0050	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.0050	"	"	"	"	"	"	
Chlorobenzene	ND	0.0050	"	"	"	"	"	"	
Chloroethane	ND	0.0050	"	"	"	"	"	"	
Chloroform	ND	0.0050	"	"	"	"	"	"	
Chloromethane	ND	0.0050	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.0050	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.0050	"	"	"	"	"	"	
Dibromochloromethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	0.010	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.0050	"	"	"	"	"	"	
Dibromomethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0050	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.0050	"	"	"	"	"	"	
1,2-Dichloroethane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.0050	"	"	"	"	"	"	

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 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 17:06

**B12-1**  
**T161654-33 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
cis-1,2-Dichloroethene	ND	0.0050	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
trans-1,2-Dichloroethene	ND	0.0050	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.0050	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.0050	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.0050	"	"	"	"	"	"	
Isopropylbenzene	ND	0.0050	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.0050	"	"	"	"	"	"	
Methylene chloride	ND	0.0050	"	"	"	"	"	"	
Naphthalene	ND	0.0050	"	"	"	"	"	"	
n-Propylbenzene	ND	0.0050	"	"	"	"	"	"	
Styrene	ND	0.0050	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.0050	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	0.0050	"	"	"	"	"	"	
Tetrachloroethene	ND	0.0050	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.0050	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.0050	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.0050	"	"	"	"	"	"	
Trichloroethene	ND	0.0050	"	"	"	"	"	"	
Trichlorofluoromethane	ND	0.0050	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.0050	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.0050	"	"	"	"	"	"	
Vinyl chloride	ND	0.0050	"	"	"	"	"	"	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	

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**B12-1**  
**T161654-33 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**Volatile Organic Compounds by EPA Method 8260B**

m,p-Xylene	ND	0.010	mg/kg	1	6072205	07/22/16	07/22/16	EPA 8260B/5035	
o-Xylene	ND	0.0050	"	"	"	"	"	"	"
Surrogate: Toluene-d8		110 %	85.5-116		"	"	"	"	"
Surrogate: 4-Bromofluorobenzene		90.2 %	81.2-123		"	"	"	"	"
Surrogate: Dibromofluoromethane		97.1 %	95.7-135		"	"	"	"	"

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Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 17:06

**Extractable Petroleum Hydrocarbons by 8015C - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 6072222 - EPA 3550B GC**

**Blank (6072222-BLK1)**

Prepared: 07/22/16 Analyzed: 07/23/16

C6-C12 (GRO)	ND	10	mg/kg							
C13-C28 (DRO)	ND	10	"							
C29-C40 (MORO)	ND	10	"							
Surrogate: <i>p</i> -Terphenyl	95.0		"	99.9		95.1	65-135			

**LCS (6072222-BS1)**

Prepared: 07/22/16 Analyzed: 07/23/16

C13-C28 (DRO)	490	10	mg/kg	496		99.5	75-125			
Surrogate: <i>p</i> -Terphenyl	100		"	99.2		101	65-135			

**LCS Dup (6072222-BSD1)**

Prepared: 07/22/16 Analyzed: 07/23/16

C13-C28 (DRO)	520	10	mg/kg	499		105	75-125	6.03	20	
Surrogate: <i>p</i> -Terphenyl	107		"	99.8		108	65-135			

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 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 17:06

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 6072205 - EPA 5030 GCMS**

**Blank (6072205-BLK1)**

Prepared & Analyzed: 07/22/16

Bromobenzene	ND	0.0050	mg/kg							
Bromochloromethane	ND	0.0050	"							
Bromodichloromethane	ND	0.0050	"							
Bromoform	ND	0.0050	"							
Bromomethane	ND	0.0050	"							
n-Butylbenzene	ND	0.0050	"							
sec-Butylbenzene	ND	0.0050	"							
tert-Butylbenzene	ND	0.0050	"							
Carbon tetrachloride	ND	0.0050	"							
Chlorobenzene	ND	0.0050	"							
Chloroethane	ND	0.0050	"							
Chloroform	ND	0.0050	"							
Chloromethane	ND	0.0050	"							
2-Chlorotoluene	ND	0.0050	"							
4-Chlorotoluene	ND	0.0050	"							
Dibromochloromethane	ND	0.0050	"							
1,2-Dibromo-3-chloropropane	ND	0.010	"							
1,2-Dibromoethane (EDB)	ND	0.0050	"							
Dibromomethane	ND	0.0050	"							
1,2-Dichlorobenzene	ND	0.0050	"							
1,3-Dichlorobenzene	ND	0.0050	"							
1,4-Dichlorobenzene	ND	0.0050	"							
Dichlorodifluoromethane	ND	0.0050	"							
1,1-Dichloroethane	ND	0.0050	"							
1,2-Dichloroethane	ND	0.0050	"							
1,1-Dichloroethene	ND	0.0050	"							
cis-1,2-Dichloroethene	ND	0.0050	"							
trans-1,2-Dichloroethene	ND	0.0050	"							
1,2-Dichloropropane	ND	0.0050	"							
1,3-Dichloropropane	ND	0.0050	"							
2,2-Dichloropropane	ND	0.0050	"							
1,1-Dichloropropene	ND	0.0050	"							
cis-1,3-Dichloropropene	ND	0.0050	"							
trans-1,3-Dichloropropene	ND	0.0050	"							
Hexachlorobutadiene	ND	0.0050	"							
Isopropylbenzene	ND	0.0050	"							

SunStar Laboratories, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Daniel Chavez, Project Manager



25712 Commercentre Drive  
 Lake Forest, California 92630  
 949.297.5020 Phone  
 949.297.5027 Fax

Partner Engineering & Science, Inc.--Tor  
 2154 Torrance Blvd., Suite 20  
 Torrance CA, 90501

Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 17:06

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 6072205 - EPA 5030 GCMS**

**Blank (6072205-BLK1)**

Prepared & Analyzed: 07/22/16

p-Isopropyltoluene	ND	0.0050	mg/kg							
Methylene chloride	ND	0.0050	"							
Naphthalene	ND	0.0050	"							
n-Propylbenzene	ND	0.0050	"							
Styrene	ND	0.0050	"							
1,1,2,2-Tetrachloroethane	ND	0.0050	"							
1,1,1,2-Tetrachloroethane	ND	0.0050	"							
Tetrachloroethene	ND	0.0050	"							
1,2,3-Trichlorobenzene	ND	0.0050	"							
1,2,4-Trichlorobenzene	ND	0.0050	"							
1,1,2-Trichloroethane	ND	0.0050	"							
1,1,1-Trichloroethane	ND	0.0050	"							
Trichloroethene	ND	0.0050	"							
Trichlorofluoromethane	ND	0.0050	"							
1,2,3-Trichloropropane	ND	0.0050	"							
1,3,5-Trimethylbenzene	ND	0.0050	"							
1,2,4-Trimethylbenzene	ND	0.0050	"							
Vinyl chloride	ND	0.0050	"							
Benzene	ND	0.0050	"							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
m,p-Xylene	ND	0.010	"							
o-Xylene	ND	0.0050	"							
Surrogate: Toluene-d8	0.0444		"	0.0400		111	85.5-116			
Surrogate: 4-Bromofluorobenzene	0.0434		"	0.0400		109	81.2-123			
Surrogate: Dibromofluoromethane	0.0370		"	0.0400		92.4	95.7-135			S-GC

**LCS (6072205-BS1)**

Prepared & Analyzed: 07/22/16

Chlorobenzene	0.0784	0.0050	mg/kg	0.100		78.4	75-125			
1,1-Dichloroethene	0.0788	0.0050	"	0.100		78.8	75-125			
Trichloroethene	0.0770	0.0050	"	0.100		77.0	75-125			
Benzene	0.0874	0.0050	"	0.100		87.4	75-125			
Toluene	0.0752	0.0050	"	0.100		75.2	75-125			
Surrogate: Toluene-d8	0.0380		"	0.0400		94.9	85.5-116			
Surrogate: 4-Bromofluorobenzene	0.0407		"	0.0400		102	81.2-123			
Surrogate: Dibromofluoromethane	0.0530		"	0.0400		132	95.7-135			

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



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 Lake Forest, California 92630  
 949.297.5020 Phone  
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Partner Engineering & Science, Inc.--Tor  
 2154 Torrance Blvd., Suite 20  
 Torrance CA, 90501

Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 17:06

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**

**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 6072205 - EPA 5030 GCMS**

**LCS Dup (6072205-BSD1)**

Prepared & Analyzed: 07/22/16

Chlorobenzene	0.0824	0.0050	mg/kg	0.0994		82.8	75-125	4.99	20	
1,1-Dichloroethene	0.0848	0.0050	"	0.0994		85.4	75-125	7.38	20	
Trichloroethene	0.0796	0.0050	"	0.0994		80.1	75-125	3.35	20	
Benzene	0.0940	0.0050	"	0.0994		94.5	75-125	7.26	20	
Toluene	0.0856	0.0050	"	0.0994		86.1	75-125	13.0	20	
Surrogate: Toluene-d8	0.0391		"	0.0398		98.3	85.5-116			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0398		98.5	81.2-123			
Surrogate: Dibromofluoromethane	0.0546		"	0.0398		137	95.7-135			S-GC

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



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Lake Forest, California 92630  
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Partner Engineering & Science, Inc.--Tor  
2154 Torrance Blvd., Suite 20  
Torrance CA, 90501

Project: 5355 East Airport Drive  
Project Number: 16-163550.2  
Project Manager: Samantha Fujita

**Reported:**  
07/25/16 17:06

### Notes and Definitions

- S-GC Surrogate recovery outside of established control limits. The data was accepted based on valid recovery of the remaining surrogate(s).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

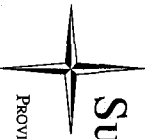
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SunStar Laboratories, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

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Daniel Chavez, Project Manager



SunStar  
Laboratories, Inc.

Chain of Custody Record

PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE  
25712 Commerce Centre Drive, Lake Forest, CA 92630  
949-297-5020

Client: Radtner EST  
Address: 2154 Terrace Blvd Terrace CA 90701  
Phone: 710 612 2758 Fax: \_\_\_\_\_  
Project Manager: S. Fujita

Date: 7-21-16 Page: 1 of 3  
Project Name: 5355 East Airport  
Collector: B. Godbois Client Project #: 16-1635502  
Batch #: 161654 EDF #: \_\_\_\_\_

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals	6020 ICP-MS Metals	Laboratory ID #	Comments/Preservative	Total # of containers
B1-1		0800													01		
B2-1		0810													02		
B3-5		0820													03		
B3-10		0825													04		
B3-15		0830													05		
B3-20		0835													06		
B3-25		0840													07		
B4-5		0920													08		
B4-10		0925													09		
B4-15		0930													10		
B4-20		0935													11		
B5-5		1005													12		
B5-10		1010													13		
B5-15		1015													14		
B5-20		1020													15		
Relinquished by: (signature) <u>[Signature]</u> Date / Time <u>7/21/16 08:55</u>			Received by: (signature) <u>[Signature]</u> Date / Time <u>7/22/16 01:33</u>			Total # of containers			Chain of Custody seals Y/N/N/A			Seals intact? Y/N/N/A			Notes		
Relinquished by: (signature) <u>[Signature]</u> Date / Time <u>7/21/16 10:55</u>			Received by: (signature) <u>[Signature]</u> Date / Time <u>7/22/16 10:53</u>			Received good condition/cold			Turn around time: <u>Results</u>								

Sample disposal instructions: Disposal @ \$2.00 each \_\_\_\_\_ Return to client \_\_\_\_\_ Pickup \_\_\_\_\_  
by lunch **COC 151694**  
or **Mon day 7/25**



Client: Rather ESI  
 Address: 2154 Terrace Blvd Torrance CA 90501  
 Phone: 310612 2738 Fax: \_\_\_\_\_  
 Project Manager: S. Fujita

Date: 7-21-16 Page: 2 of 3  
 Project Name: 5355 East Airport Drive  
 Collector: J. G. Skoob Client Project #: 16-163550.2  
 Batch #: 161684 EDF #: \_\_\_\_\_

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals	6020 ICP-MS Metals	8015 (TPH-cc)	8260B (Vols)	Laboratory ID #	Comments/Preservative	Total # of containers
B5-25	7-21-16	10:25	Seal	LineGuard													16		
B6-5		11:20															17		
B6-10		11:25															18		
B6-15		11:30															19		
B6-20		11:35															20		
B6-25		11:40															21		
B7-2		12:30															22		
B7-5		12:35															23		
B7-10		12:40															24		
B7-15		12:45															25		
B8-2		13:00															26		
B8-5		13:05															27		
B8-10		13:10															28		
B8-15		13:15															29		
B9-1		13:20															30		
Relinquished by: (signature) <u>[Signature]</u> Date / Time <u>7/21/16 09:35</u>					Received by: (signature) <u>[Signature]</u> Date / Time <u>7/22/16 9:37</u>					Total # of containers					Notes				
Relinquished by: (signature) <u>[Signature]</u> Date / Time <u>7/22/16 10:55</u>					Received by: (signature) <u>[Signature]</u> Date / Time <u>7/22/16 10:53</u>					Chain of Custody seals Y/N/N/A					Received good condition/cold				

Sample disposal instructions: Disposal @ \$2.00 each \_\_\_\_\_ Return to client \_\_\_\_\_ Pickup \_\_\_\_\_

Turn around time: Results

by lunt Mandy 7/22 **COC 151695**



**SunStar  
Laboratories, Inc.**

**Chain of Custody Record**

PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE  
25712 Commercentre Drive, Lake Forest, CA 92630  
949-297-5020

Client: RATNER EST

Address: 2154 Torrance Blvd Torrance CA 90501

Phone: 310 612 2738 Fax: \_\_\_\_\_

Project Manager: S. F. [Signature]

Date: 7-27-16

Project Name: B 5355 EAST APPROX DRIVE

Collector: B. GOBER Client Project #: 16-163550.2

Batch #: 1161654

Page: 3 of 3  
EDF #: \_\_\_\_\_

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	8015M (diesel)	8015M Ext./Carbon Chain	6010/7000 Title 22 Metals	6020 ICP-MS Metals	Laboratory ID #	Comments/Preservative	Total # of containers
B10-1	7/21/16	1430	soil	meivud											31		
B11-1	7/21/16	1440													32		
B2-1	7/21/16	1450													33		
Retinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time	Received by: (signature)	Date / Time	Chain of Custody seals Y/N/N/A	Seals intact? Y/N/N/A	Received good condition/cold	Turn around time:	Notes							
<i>[Signature]</i>	7/21/16 08:55	<i>[Signature]</i>	7/21/16 9:37	<i>[Signature]</i>	7/21/16 10:53				<u>Results</u>								

Sample disposal instructions: Disposal @ \$2.00 each \_\_\_\_\_

Return to client \_\_\_\_\_

Pickup \_\_\_\_\_

by Send **COC 151696**  
Munday 7/25

## SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #: T161654

Client Name: Partner Eng Project: 5355 East Airport Drive

Delivered by:  Client  SunStar Courier  GSO  FedEx  Other

If Courier, Received by: Kyle Date/Time Courier Received: 7/22/16 9:37

Lab Received by: ~~Brian~~ <sup>BC</sup> BRIAN Date/Time Lab Received: 7/22/16 10:55

Total number of coolers received: 1

Temperature: Cooler #1	5.6	°C +/- the CF (-0.2°C) =	5.4	°C corrected temperature
Temperature: Cooler #2		°C +/- the CF (-0.2°C) =		°C corrected temperature
Temperature: Cooler #3		°C +/- the CF (-0.2°C) =		°C corrected temperature

<b>Temperature criteria = ≤ 6°C</b> <b>(no frozen containers)</b>	Within criteria?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>If NO:</b>		
Samples received on ice?	<input type="checkbox"/> Yes	<input type="checkbox"/> No → <b>Complete Non-Conformance Sheet</b>
If on ice, samples received same day collected?	<input type="checkbox"/> Yes → Acceptable	<input type="checkbox"/> No → <b>Complete Non-Conformance Sheet</b>

- Custody seals intact on cooler/sample  Yes  No\*  N/A
  - Sample containers intact  Yes  No\*
  - Sample labels match Chain of Custody IDs  Yes  No\*
  - Total number of containers received match COC  Yes  No\*
  - Proper containers received for analyses requested on COC  Yes  No\*
  - Proper preservative indicated on COC/containers for analyses requested  Yes  No\*  N/A
  - Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times  Yes  No\*
- \* Complete Non-Conformance Receiving Sheet if checked      Cooler/Sample Review - Initials and date: *[Signature]* 7/22/16

**Comments:** \_\_\_\_\_

**WORK ORDER**

**T161654**

**Client:** Partner Engineering & Science, Inc.--Tor  
**Project:** 5355 East Airport Drive

**Project Manager:** Daniel Chavez  
**Project Number:** 16-163550.2

**Report To:**

Partner Engineering & Science, Inc.--Tor  
Samantha Fujita  
2154 Torrance Blvd., Suite 20  
Torrance, CA 90501

Date Due: 07/25/16 12:00 (1 day TAT)

Received By: Brian Charon

Date Received: 07/22/16 10:53

Logged In By: Kyler Mondello

Date Logged In: 07/22/16 11:33

Samples Received at: 5.4°C

Custody Seals	No	Received On Ice	Yes
Containers Intact	Yes		
COC/Labels Agree	Yes		
Preservation Confir	Yes		

Analysis	Due	TAT	Expires	Comments
<b>T161654-01 B1-1 [Soil] Sampled 07/21/16 08:00 (GMT-08:00) Pacific Time (US &amp;</b>				
8015 Carbon Chain	07/25/16 12:00	1	08/04/16 08:00	
8260 5035	07/25/16 12:00	1	08/04/16 08:00	
<b>T161654-02 B2-1 [Soil] Sampled 07/21/16 08:10 (GMT-08:00) Pacific Time (US &amp;</b>				
8015 Carbon Chain	07/25/16 12:00	1	08/04/16 08:10	
8260 5035	07/25/16 12:00	1	08/04/16 08:10	
<b>T161654-03 B3-5 [Soil] Sampled 07/21/16 08:20 (GMT-08:00) Pacific Time (US HOLD &amp;</b>				
[NO ANALYSES]				
<b>T161654-04 B3-10 [Soil] Sampled 07/21/16 08:25 (GMT-08:00) Pacific Time (US HOLD &amp;</b>				
[NO ANALYSES]				
<b>T161654-05 B3-15 [Soil] Sampled 07/21/16 08:30 (GMT-08:00) Pacific Time (US &amp;</b>				
8015 Carbon Chain	07/25/16 12:00	1	08/04/16 08:30	
8260 5035	07/25/16 12:00	1	08/04/16 08:30	
<b>T161654-06 B3-20 [Soil] Sampled 07/21/16 08:35 (GMT-08:00) Pacific Time (US HOLD &amp;</b>				
[NO ANALYSES]				
<b>T161654-07 B3-25 [Soil] Sampled 07/21/16 08:40 (GMT-08:00) Pacific Time (US HOLD &amp;</b>				
[NO ANALYSES]				

**WORK ORDER**

**T161654**

**Client:** Partner Engineering & Science, Inc.--Tor  
**Project:** 5355 East Airport Drive

**Project Manager:** Daniel Chavez  
**Project Number:** 16-163550.2

Analysis	Due	TAT	Expires	Comments
<b>T161654-08 B4-5 [Soil] Sampled 07/21/16 09:20 (GMT-08:00) Pacific Time (US HOLD</b>				
<b>&amp;</b>				
[NO ANALYSES]				
<b>T161654-09 B4-10 [Soil] Sampled 07/21/16 09:25 (GMT-08:00) Pacific Time (US</b>				
<b>&amp;</b>				
8015 Carbon Chain	07/25/16 12:00	1	08/04/16 09:25	
8260 5035	07/25/16 12:00	1	08/04/16 09:25	
<b>T161654-10 B4-15 [Soil] Sampled 07/21/16 09:30 (GMT-08:00) Pacific Time (US HOLD</b>				
<b>&amp;</b>				
[NO ANALYSES]				
<b>T161654-11 B4-20 [Soil] Sampled 07/21/16 09:35 (GMT-08:00) Pacific Time (US HOLD</b>				
<b>&amp;</b>				
[NO ANALYSES]				
<b>T161654-12 B5-5 [Soil] Sampled 07/21/16 10:05 (GMT-08:00) Pacific Time (US HOLD</b>				
<b>&amp;</b>				
[NO ANALYSES]				
<b>T161654-13 B5-10 [Soil] Sampled 07/21/16 10:10 (GMT-08:00) Pacific Time (US HOLD</b>				
<b>&amp;</b>				
[NO ANALYSES]				
<b>T161654-14 B5-15 [Soil] Sampled 07/21/16 10:15 (GMT-08:00) Pacific Time (US</b>				
<b>&amp;</b>				
8015 Carbon Chain	07/25/16 12:00	1	08/04/16 10:15	
8260 5035	07/25/16 12:00	1	08/04/16 10:15	
<b>T161654-15 B5-20 [Soil] Sampled 07/21/16 10:20 (GMT-08:00) Pacific Time (US HOLD</b>				
<b>&amp;</b>				
[NO ANALYSES]				
<b>T161654-16 B5-25 [Soil] Sampled 07/21/16 10:25 (GMT-08:00) Pacific Time (US HOLD</b>				
<b>&amp;</b>				
[NO ANALYSES]				
<b>T161654-17 B6-5 [Soil] Sampled 07/21/16 11:20 (GMT-08:00) Pacific Time (US HOLD</b>				
<b>&amp;</b>				
[NO ANALYSES]				
<b>T161654-18 B6-10 [Soil] Sampled 07/21/16 11:25 (GMT-08:00) Pacific Time (US</b>				
<b>&amp;</b>				
8015 Carbon Chain	07/25/16 12:00	1	08/04/16 11:25	
8260 5035	07/25/16 12:00	1	08/04/16 11:25	

**WORK ORDER**

**T161654**

**Client:** Partner Engineering & Science, Inc.--Tor  
**Project:** 5355 East Airport Drive

**Project Manager:** Daniel Chavez  
**Project Number:** 16-163550.2

Analysis	Due	TAT	Expires	Comments
<b>T161654-19 B6-15 [Soil] Sampled 07/21/16 11:30 (GMT-08:00) Pacific Time (US HOLD &amp; [NO ANALYSES])</b>				
<b>T161654-20 B6-20 [Soil] Sampled 07/21/16 11:35 (GMT-08:00) Pacific Time (US HOLD &amp; [NO ANALYSES])</b>				
<b>T161654-21 B6-25 [Soil] Sampled 07/21/16 11:40 (GMT-08:00) Pacific Time (US HOLD &amp; [NO ANALYSES])</b>				
<b>T161654-22 B7-2 [Soil] Sampled 07/21/16 12:30 (GMT-08:00) Pacific Time (US HOLD &amp; [NO ANALYSES])</b>				
<b>T161654-23 B7-5 [Soil] Sampled 07/21/16 12:35 (GMT-08:00) Pacific Time (US HOLD &amp; [NO ANALYSES])</b>				
<b>T161654-24 B7-10 [Soil] Sampled 07/21/16 12:40 (GMT-08:00) Pacific Time (US HOLD &amp; [NO ANALYSES])</b>				
8015 Carbon Chain	07/25/16 12:00	1	08/04/16 12:40	
8260 5035	07/25/16 12:00	1	08/04/16 12:40	
<b>T161654-25 B7-15 [Soil] Sampled 07/21/16 12:45 (GMT-08:00) Pacific Time (US HOLD &amp; [NO ANALYSES])</b>				
<b>T161654-26 B8-2 [Soil] Sampled 07/21/16 13:00 (GMT-08:00) Pacific Time (US HOLD &amp; [NO ANALYSES])</b>				
<b>T161654-27 B8-5 [Soil] Sampled 07/21/16 13:05 (GMT-08:00) Pacific Time (US HOLD &amp; [NO ANALYSES])</b>				
<b>T161654-28 B8-10 [Soil] Sampled 07/21/16 13:10 (GMT-08:00) Pacific Time (US HOLD &amp; [NO ANALYSES])</b>				
8015 Carbon Chain	07/25/16 12:00	1	08/04/16 13:10	
8260 5035	07/25/16 12:00	1	08/04/16 13:10	
<b>T161654-29 B8-15 [Soil] Sampled 07/21/16 13:15 (GMT-08:00) Pacific Time (US HOLD &amp; [NO ANALYSES])</b>				

**WORK ORDER**

**T161654**

<b>Client:</b> Partner Engineering & Science, Inc.--Tor	<b>Project Manager:</b> Daniel Chavez
<b>Project:</b> 5355 East Airport Drive	<b>Project Number:</b> 16-163550.2

Analysis	Due	TAT	Expires	Comments
<b>T161654-30 B9-1 [Soil] Sampled 07/21/16 14:20 (GMT-08:00) Pacific Time (US &amp;</b>				
8015 Carbon Chain	07/25/16 12:00	1	08/04/16 14:20	
8260 5035	07/25/16 12:00	1	08/04/16 14:20	
<b>T161654-31 B10-1 [Soil] Sampled 07/21/16 14:30 (GMT-08:00) Pacific Time (US &amp;</b>				
8015 Carbon Chain	07/25/16 12:00	1	08/04/16 14:30	
8260 5035	07/25/16 12:00	1	08/04/16 14:30	
<b>T161654-32 B11-1 [Soil] Sampled 07/21/16 14:40 (GMT-08:00) Pacific Time (US &amp;</b>				
8015 Carbon Chain	07/25/16 12:00	1	08/04/16 14:40	
8260 5035	07/25/16 12:00	1	08/04/16 14:40	
<b>T161654-33 B12-1 [Soil] Sampled 07/21/16 14:50 (GMT-08:00) Pacific Time (US &amp;</b>				
8015 Carbon Chain	07/25/16 12:00	1	08/04/16 14:50	
8260 5035	07/25/16 12:00	1	08/04/16 14:50	



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25 July 2016

Samantha Fujita  
Partner Engineering & Science, Inc.--Tor  
2154 Torrance Blvd., Suite 20  
Torrance, CA 90501  
RE: 5355 East Airport Drive

Enclosed are the results of analyses for samples received by the laboratory on 07/22/16 10:53. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Daniel Chavez  
Project Manager





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Partner Engineering & Science, Inc.--Tor  
2154 Torrance Blvd., Suite 20  
Torrance CA, 90501

Project: 5355 East Airport Drive  
Project Number: 16-163550.2  
Project Manager: Samantha Fujita

**Reported:**  
07/25/16 11:41

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B5-SG	T161653-01	Air	07/21/16 16:09	07/22/16 10:53
B7-SG	T161653-02	Air	07/21/16 16:46	07/22/16 10:53
B8-SG	T161653-03	Air	07/21/16 16:50	07/22/16 10:53
B6-SG	T161653-04	Air	07/21/16 16:13	07/22/16 10:53
B4-SG	T161653-05	Air	07/21/16 15:55	07/22/16 10:53
B3-SG	T161653-06	Air	07/21/16 15:51	07/22/16 10:53

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager

Partner Engineering & Science, Inc.--Tor  
2154 Torrance Blvd., Suite 20  
Torrance CA, 90501

Project: 5355 East Airport Drive  
Project Number: 16-163550.2  
Project Manager: Samantha Fujita

Reported:  
07/25/16 11:41

**DETECTIONS SUMMARY**

**Sample ID:** B5-SG **Laboratory ID:** T161653-01

Analyte	Reporting		Units	Method	Notes
	Result	Limit			
Tetrachloroethene	100	6.9	ug/m <sup>3</sup> Air	TO-15	
m,p-Xylene	12	8.8	ug/m <sup>3</sup> Air	TO-15	

**Sample ID:** B7-SG **Laboratory ID:** T161653-02

Analyte	Reporting		Units	Method	Notes
	Result	Limit			
Toluene	4.9	3.8	ug/m <sup>3</sup> Air	TO-15	
Ethylbenzene	11	4.4	ug/m <sup>3</sup> Air	TO-15	
m,p-Xylene	73	8.8	ug/m <sup>3</sup> Air	TO-15	
o-Xylene	19	4.4	ug/m <sup>3</sup> Air	TO-15	

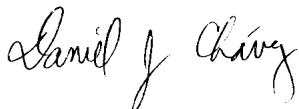
**Sample ID:** B8-SG **Laboratory ID:** T161653-03

Analyte	Reporting		Units	Method	Notes
	Result	Limit			
Tetrachloroethene	44	6.9	ug/m <sup>3</sup> Air	TO-15	
Trichloroethene	13	5.5	ug/m <sup>3</sup> Air	TO-15	
Toluene	13	3.8	ug/m <sup>3</sup> Air	TO-15	
Ethylbenzene	21	4.4	ug/m <sup>3</sup> Air	TO-15	
m,p-Xylene	140	8.8	ug/m <sup>3</sup> Air	TO-15	
o-Xylene	38	4.4	ug/m <sup>3</sup> Air	TO-15	

**Sample ID:** B6-SG **Laboratory ID:** T161653-04

Analyte	Reporting		Units	Method	Notes
	Result	Limit			
Tetrachloroethene	68	6.9	ug/m <sup>3</sup> Air	TO-15	
Trichloroethene	26	5.5	ug/m <sup>3</sup> Air	TO-15	
Toluene	4.0	3.8	ug/m <sup>3</sup> Air	TO-15	
m,p-Xylene	19	8.8	ug/m <sup>3</sup> Air	TO-15	
o-Xylene	4.6	4.4	ug/m <sup>3</sup> Air	TO-15	

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Daniel Chavez, Project Manager



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 Torrance CA, 90501

Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 11:41

Sample ID: B4-SG

Laboratory ID: T161653-05

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Ethylbenzene	280	220		ug/m <sup>3</sup> Air	TO-15	TO-14
m,p-Xylene	1100	220		ug/m <sup>3</sup> Air	TO-15	TO-14
o-Xylene	400	220		ug/m <sup>3</sup> Air	TO-15	TO-14

Sample ID: B3-SG

Laboratory ID: T161653-06

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
m,p-Xylene	460	220		ug/m <sup>3</sup> Air	TO-15	TO-14

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Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 11:41

**B5-SG**  
**T161653-01 (Air)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**TO-15**

Acetone	ND	12	ug/m <sup>3</sup> Air	1.62	6072216	07/22/16	07/22/16	TO-15	
1,3-Butadiene	ND	4.5	"	"	"	"	"	"	
Carbon Disulfide	ND	3.2	"	"	"	"	"	"	
1,1,2-trichloro-1,2,2-trifluoroethane (CFC 113)	ND	7.7	"	"	"	"	"	"	
Isopropyl alcohol	ND	13	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
Bromoform	ND	11	"	"	"	"	"	"	
Bromomethane	ND	4.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Chloroethane	ND	2.7	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	11	"	"	"	"	"	"	
Cyclohexane	ND	3.5	"	"	"	"	"	"	
Heptane	ND	4.2	"	"	"	"	"	"	
Hexane	ND	3.6	"	"	"	"	"	"	
Dibromochloromethane	ND	8.7	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	6.1	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	6.1	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	6.1	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	4.1	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	4.7	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	

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Daniel Chavez, Project Manager



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Partner Engineering & Science, Inc.--Tor 2154 Torrance Blvd., Suite 20 Torrance CA, 90501	Project: 5355 East Airport Drive Project Number: 16-163550.2 Project Manager: Samantha Fujita	Reported: 07/25/16 11:41
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**B5-SG**  
**T161653-01 (Air)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**TO-15**

Methylene chloride	ND	3.5	ug/m <sup>3</sup> Air	1.62	6072216	07/22/16	07/22/16	TO-15	
Styrene	ND	4.3	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Tetrahydrofuran	ND	3.0	"	"	"	"	"	"	
<b>Tetrachloroethene</b>	<b>100</b>	6.9	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.6	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.6	"	"	"	"	"	"	
Trichloroethene	ND	5.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.7	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl acetate	ND	3.6	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
1,4-Dioxane	ND	18	"	"	"	"	"	"	
2-Butanone (MEK)	ND	15	"	"	"	"	"	"	
Methyl isobutyl ketone	ND	42	"	"	"	"	"	"	
Benzene	ND	3.3	"	"	"	"	"	"	
Toluene	ND	3.8	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
<b>m,p-Xylene</b>	<b>12</b>	8.8	"	"	"	"	"	"	
o-Xylene	ND	4.4	"	"	"	"	"	"	

Surrogate: 4-Bromofluorobenzene 77.9 % 40-160 " " " "

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Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 11:41

**B7-SG**  
**T161653-02 (Air)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**TO-15**

Acetone	ND	12	ug/m <sup>3</sup> Air	1.64	6072216	07/22/16	07/22/16	TO-15	
1,3-Butadiene	ND	4.5	"	"	"	"	"	"	
Carbon Disulfide	ND	3.2	"	"	"	"	"	"	
1,1,2-trichloro-1,2,2-trifluoroethane (CFC 113)	ND	7.7	"	"	"	"	"	"	
Isopropyl alcohol	ND	13	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
Bromoform	ND	11	"	"	"	"	"	"	
Bromomethane	ND	4.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Chloroethane	ND	2.7	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	11	"	"	"	"	"	"	
Cyclohexane	ND	3.5	"	"	"	"	"	"	
Heptane	ND	4.2	"	"	"	"	"	"	
Hexane	ND	3.6	"	"	"	"	"	"	
Dibromochloromethane	ND	8.7	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	6.1	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	6.1	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	6.1	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	4.1	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	4.7	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	

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Daniel Chavez, Project Manager



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 Torrance CA, 90501

Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 11:41

**B7-SG**  
**T161653-02 (Air)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**TO-15**

Methylene chloride	ND	3.5	ug/m <sup>3</sup> Air	1.64	6072216	07/22/16	07/22/16	TO-15	
Styrene	ND	4.3	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Tetrahydrofuran	ND	3.0	"	"	"	"	"	"	
Tetrachloroethene	ND	6.9	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.6	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.6	"	"	"	"	"	"	
Trichloroethene	ND	5.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.7	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl acetate	ND	3.6	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
1,4-Dioxane	ND	18	"	"	"	"	"	"	
2-Butanone (MEK)	ND	15	"	"	"	"	"	"	
Methyl isobutyl ketone	ND	42	"	"	"	"	"	"	
Benzene	ND	3.3	"	"	"	"	"	"	
<b>Toluene</b>	<b>4.9</b>	3.8	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>11</b>	4.4	"	"	"	"	"	"	
<b>m,p-Xylene</b>	<b>73</b>	8.8	"	"	"	"	"	"	
<b>o-Xylene</b>	<b>19</b>	4.4	"	"	"	"	"	"	

Surrogate: 4-Bromofluorobenzene 72.3 % 40-160 " " " "

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Daniel Chavez, Project Manager



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Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 11:41

**B8-SG**  
**T161653-03 (Air)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**TO-15**

Acetone	ND	12	ug/m <sup>3</sup> Air	1.81	6072216	07/22/16	07/22/16	TO-15	
1,3-Butadiene	ND	4.5	"	"	"	"	"	"	
Carbon Disulfide	ND	3.2	"	"	"	"	"	"	
1,1,2-trichloro-1,2,2-trifluoroethane (CFC 113)	ND	7.7	"	"	"	"	"	"	
Isopropyl alcohol	ND	13	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
Bromoform	ND	11	"	"	"	"	"	"	
Bromomethane	ND	4.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Chloroethane	ND	2.7	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	11	"	"	"	"	"	"	
Cyclohexane	ND	3.5	"	"	"	"	"	"	
Heptane	ND	4.2	"	"	"	"	"	"	
Hexane	ND	3.6	"	"	"	"	"	"	
Dibromochloromethane	ND	8.7	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	6.1	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	6.1	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	6.1	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	4.1	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	4.7	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	

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Daniel Chavez, Project Manager





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 Torrance CA, 90501

Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 11:41

**B8-SG**  
**T161653-03 (Air)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**TO-15**

Methylene chloride	ND	3.5	ug/m <sup>3</sup> Air	1.81	6072216	07/22/16	07/22/16	TO-15	
Styrene	ND	4.3	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Tetrahydrofuran	ND	3.0	"	"	"	"	"	"	
<b>Tetrachloroethene</b>	<b>44</b>	6.9	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.6	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.6	"	"	"	"	"	"	
<b>Trichloroethene</b>	<b>13</b>	5.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.7	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl acetate	ND	3.6	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
1,4-Dioxane	ND	18	"	"	"	"	"	"	
2-Butanone (MEK)	ND	15	"	"	"	"	"	"	
Methyl isobutyl ketone	ND	42	"	"	"	"	"	"	
Benzene	ND	3.3	"	"	"	"	"	"	
<b>Toluene</b>	<b>13</b>	3.8	"	"	"	"	"	"	
<b>Ethylbenzene</b>	<b>21</b>	4.4	"	"	"	"	"	"	
<b>m,p-Xylene</b>	<b>140</b>	8.8	"	"	"	"	"	"	
<b>o-Xylene</b>	<b>38</b>	4.4	"	"	"	"	"	"	

Surrogate: 4-Bromofluorobenzene 72.0 % 40-160 " " " "

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Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 11:41

**B6-SG**  
**T161653-04 (Air)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**TO-15**

Acetone	ND	12	ug/m <sup>3</sup> Air	1.83	6072216	07/22/16	07/22/16	TO-15	
1,3-Butadiene	ND	4.5	"	"	"	"	"	"	
Carbon Disulfide	ND	3.2	"	"	"	"	"	"	
1,1,2-trichloro-1,2,2-trifluoroethane (CFC 113)	ND	7.7	"	"	"	"	"	"	
Isopropyl alcohol	ND	13	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
Bromoform	ND	11	"	"	"	"	"	"	
Bromomethane	ND	4.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Chloroethane	ND	2.7	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	11	"	"	"	"	"	"	
Cyclohexane	ND	3.5	"	"	"	"	"	"	
Heptane	ND	4.2	"	"	"	"	"	"	
Hexane	ND	3.6	"	"	"	"	"	"	
Dibromochloromethane	ND	8.7	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	6.1	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	6.1	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	6.1	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
1,2-Dichloroethane	ND	4.1	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	4.7	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	

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 Project Number: 16-163550.2  
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Reported:  
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**B6-SG**  
**T161653-04 (Air)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**TO-15**

Methylene chloride	ND	3.5	ug/m <sup>3</sup> Air	1.83	6072216	07/22/16	07/22/16	TO-15	
Styrene	ND	4.3	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Tetrahydrofuran	ND	3.0	"	"	"	"	"	"	
<b>Tetrachloroethene</b>	<b>68</b>	6.9	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.6	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.6	"	"	"	"	"	"	
<b>Trichloroethene</b>	<b>26</b>	5.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.7	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl acetate	ND	3.6	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
1,4-Dioxane	ND	18	"	"	"	"	"	"	
2-Butanone (MEK)	ND	15	"	"	"	"	"	"	
Methyl isobutyl ketone	ND	42	"	"	"	"	"	"	
Benzene	ND	3.3	"	"	"	"	"	"	
<b>Toluene</b>	<b>4.0</b>	3.8	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
<b>m,p-Xylene</b>	<b>19</b>	8.8	"	"	"	"	"	"	
<b>o-Xylene</b>	<b>4.6</b>	4.4	"	"	"	"	"	"	

Surrogate: 4-Bromofluorobenzene 72.8 % 40-160 " " " "

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 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

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**B4-SG**  
**T161653-05 (Air)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**TO-15**

Acetone	ND	120	ug/m <sup>3</sup> Air	1.73	6072216	07/22/16	07/22/16	TO-15	TO-14
1,3-Butadiene	ND	110	"	"	"	"	"	"	TO-14
Carbon Disulfide	ND	160	"	"	"	"	"	"	TO-14
1,1,2-trichloro-1,2,2-trifluoroethane (CFC 113)	ND	390	"	"	"	"	"	"	TO-14
Isopropyl alcohol	ND	130	"	"	"	"	"	"	TO-14
Bromodichloromethane	ND	340	"	"	"	"	"	"	TO-14
Bromoform	ND	530	"	"	"	"	"	"	TO-14
Bromomethane	ND	200	"	"	"	"	"	"	TO-14
Carbon tetrachloride	ND	320	"	"	"	"	"	"	TO-14
Chlorobenzene	ND	230	"	"	"	"	"	"	TO-14
Chloroethane	ND	130	"	"	"	"	"	"	TO-14
Chloroform	ND	250	"	"	"	"	"	"	TO-14
Chloromethane	ND	110	"	"	"	"	"	"	TO-14
Cyclohexane	ND	170	"	"	"	"	"	"	TO-14
Heptane	ND	210	"	"	"	"	"	"	TO-14
Hexane	ND	180	"	"	"	"	"	"	TO-14
Dibromochloromethane	ND	430	"	"	"	"	"	"	TO-14
1,2-Dibromoethane (EDB)	ND	390	"	"	"	"	"	"	TO-14
1,2-Dichlorobenzene	ND	310	"	"	"	"	"	"	TO-14
1,3-Dichlorobenzene	ND	310	"	"	"	"	"	"	TO-14
1,4-Dichlorobenzene	ND	310	"	"	"	"	"	"	TO-14
Dichlorodifluoromethane	ND	250	"	"	"	"	"	"	TO-14
1,1-Dichloroethane	ND	210	"	"	"	"	"	"	TO-14
1,2-Dichloroethane	ND	210	"	"	"	"	"	"	TO-14
1,1-Dichloroethene	ND	200	"	"	"	"	"	"	TO-14
cis-1,2-Dichloroethene	ND	200	"	"	"	"	"	"	TO-14
trans-1,2-Dichloroethene	ND	200	"	"	"	"	"	"	TO-14
1,2-Dichloropropane	ND	240	"	"	"	"	"	"	TO-14
cis-1,3-Dichloropropene	ND	230	"	"	"	"	"	"	TO-14
trans-1,3-Dichloropropene	ND	230	"	"	"	"	"	"	TO-14
4-Ethyltoluene	ND	250	"	"	"	"	"	"	TO-14

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 Project Number: 16-163550.2  
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**B4-SG**  
**T161653-05 (Air)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**TO-15**

Methylene chloride	ND	180	ug/m <sup>3</sup> Air	1.73	6072216	07/22/16	07/22/16	TO-15	TO-14
Styrene	ND	220	"	"	"	"	"	"	TO-14
1,1,2,2-Tetrachloroethane	ND	350	"	"	"	"	"	"	TO-14
Tetrahydrofuran	ND	150	"	"	"	"	"	"	TO-14
Tetrachloroethene	ND	350	"	"	"	"	"	"	TO-14
1,1,2-Trichloroethane	ND	280	"	"	"	"	"	"	TO-14
1,1,1-Trichloroethane	ND	280	"	"	"	"	"	"	TO-14
Trichloroethene	ND	270	"	"	"	"	"	"	TO-14
Trichlorofluoromethane	ND	290	"	"	"	"	"	"	TO-14
1,3,5-Trimethylbenzene	ND	250	"	"	"	"	"	"	TO-14
1,2,4-Trimethylbenzene	ND	250	"	"	"	"	"	"	TO-14
Vinyl acetate	ND	180	"	"	"	"	"	"	TO-14
Vinyl chloride	ND	130	"	"	"	"	"	"	TO-14
1,4-Dioxane	ND	180	"	"	"	"	"	"	TO-14
2-Butanone (MEK)	ND	150	"	"	"	"	"	"	TO-14
Methyl isobutyl ketone	ND	210	"	"	"	"	"	"	TO-14
Benzene	ND	160	"	"	"	"	"	"	TO-14
Toluene	ND	190	"	"	"	"	"	"	TO-14
<b>Ethylbenzene</b>	<b>280</b>	220	"	"	"	"	"	"	TO-14
<b>m,p-Xylene</b>	<b>1100</b>	220	"	"	"	"	"	"	TO-14
<b>o-Xylene</b>	<b>400</b>	220	"	"	"	"	"	"	TO-14

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Reported:  
 07/25/16 11:41

**B3-SG**  
**T161653-06 (Air)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**TO-15**

Acetone	ND	120	ug/m <sup>3</sup> Air	1.66	6072216	07/22/16	07/22/16	TO-15	TO-14
1,3-Butadiene	ND	110	"	"	"	"	"	"	TO-14
Carbon Disulfide	ND	160	"	"	"	"	"	"	TO-14
1,1,2-trichloro-1,2,2-trifluoroethane (CFC 113)	ND	390	"	"	"	"	"	"	TO-14
Isopropyl alcohol	ND	130	"	"	"	"	"	"	TO-14
Bromodichloromethane	ND	340	"	"	"	"	"	"	TO-14
Bromoform	ND	530	"	"	"	"	"	"	TO-14
Bromomethane	ND	200	"	"	"	"	"	"	TO-14
Carbon tetrachloride	ND	320	"	"	"	"	"	"	TO-14
Chlorobenzene	ND	230	"	"	"	"	"	"	TO-14
Chloroethane	ND	130	"	"	"	"	"	"	TO-14
Chloroform	ND	250	"	"	"	"	"	"	TO-14
Chloromethane	ND	110	"	"	"	"	"	"	TO-14
Cyclohexane	ND	170	"	"	"	"	"	"	TO-14
Heptane	ND	210	"	"	"	"	"	"	TO-14
Hexane	ND	180	"	"	"	"	"	"	TO-14
Dibromochloromethane	ND	430	"	"	"	"	"	"	TO-14
1,2-Dibromoethane (EDB)	ND	390	"	"	"	"	"	"	TO-14
1,2-Dichlorobenzene	ND	310	"	"	"	"	"	"	TO-14
1,3-Dichlorobenzene	ND	310	"	"	"	"	"	"	TO-14
1,4-Dichlorobenzene	ND	310	"	"	"	"	"	"	TO-14
Dichlorodifluoromethane	ND	250	"	"	"	"	"	"	TO-14
1,1-Dichloroethane	ND	210	"	"	"	"	"	"	TO-14
1,2-Dichloroethane	ND	210	"	"	"	"	"	"	TO-14
1,1-Dichloroethene	ND	200	"	"	"	"	"	"	TO-14
cis-1,2-Dichloroethene	ND	200	"	"	"	"	"	"	TO-14
trans-1,2-Dichloroethene	ND	200	"	"	"	"	"	"	TO-14
1,2-Dichloropropane	ND	240	"	"	"	"	"	"	TO-14
cis-1,3-Dichloropropene	ND	230	"	"	"	"	"	"	TO-14
trans-1,3-Dichloropropene	ND	230	"	"	"	"	"	"	TO-14
4-Ethyltoluene	ND	250	"	"	"	"	"	"	TO-14

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 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 11:41

**B3-SG**  
**T161653-06 (Air)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**SunStar Laboratories, Inc.**

**TO-15**

Methylene chloride	ND	180	ug/m <sup>3</sup> Air	1.66	6072216	07/22/16	07/22/16	TO-15	TO-14
Styrene	ND	220	"	"	"	"	"	"	TO-14
1,1,2,2-Tetrachloroethane	ND	350	"	"	"	"	"	"	TO-14
Tetrahydrofuran	ND	150	"	"	"	"	"	"	TO-14
Tetrachloroethene	ND	350	"	"	"	"	"	"	TO-14
1,1,2-Trichloroethane	ND	280	"	"	"	"	"	"	TO-14
1,1,1-Trichloroethane	ND	280	"	"	"	"	"	"	TO-14
Trichloroethene	ND	270	"	"	"	"	"	"	TO-14
Trichlorofluoromethane	ND	290	"	"	"	"	"	"	TO-14
1,3,5-Trimethylbenzene	ND	250	"	"	"	"	"	"	TO-14
1,2,4-Trimethylbenzene	ND	250	"	"	"	"	"	"	TO-14
Vinyl acetate	ND	180	"	"	"	"	"	"	TO-14
Vinyl chloride	ND	130	"	"	"	"	"	"	TO-14
1,4-Dioxane	ND	180	"	"	"	"	"	"	TO-14
2-Butanone (MEK)	ND	150	"	"	"	"	"	"	TO-14
Methyl isobutyl ketone	ND	210	"	"	"	"	"	"	TO-14
Benzene	ND	160	"	"	"	"	"	"	TO-14
Toluene	ND	190	"	"	"	"	"	"	TO-14
Ethylbenzene	ND	220	"	"	"	"	"	"	TO-14
<b>m,p-Xylene</b>	<b>460</b>	220	"	"	"	"	"	"	TO-14
o-Xylene	ND	220	"	"	"	"	"	"	TO-14

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 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

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 07/25/16 11:41

**TO-15 - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 6072216 - Canister Analysis**

**Blank (6072216-BLK1)**

Prepared & Analyzed: 07/22/16

Acetone	ND	120	ug/m <sup>3</sup> Air							TO-14
1,3-Butadiene	ND	110	"							TO-14
Carbon Disulfide	ND	160	"							TO-14
1,1,2-trichloro-1,2,2-trifluoroethane (CFC 113)	ND	390	"							TO-14
Isopropyl alcohol	ND	130	"							TO-14
Bromodichloromethane	ND	340	"							TO-14
Bromoform	ND	530	"							TO-14
Bromomethane	ND	200	"							TO-14
Carbon tetrachloride	ND	320	"							TO-14
Chlorobenzene	ND	230	"							TO-14
Chloroethane	ND	130	"							TO-14
Chloroform	ND	250	"							TO-14
Chloromethane	ND	110	"							TO-14
Cyclohexane	ND	170	"							TO-14
Heptane	ND	210	"							TO-14
Hexane	ND	180	"							TO-14
Dibromochloromethane	ND	430	"							TO-14
1,2-Dibromoethane (EDB)	ND	390	"							TO-14
1,2-Dichlorobenzene	ND	310	"							TO-14
1,3-Dichlorobenzene	ND	310	"							TO-14
1,4-Dichlorobenzene	ND	310	"							TO-14
Dichlorodifluoromethane	ND	250	"							TO-14
1,1-Dichloroethane	ND	210	"							TO-14
1,2-Dichloroethane	ND	210	"							TO-14
1,1-Dichloroethene	ND	200	"							TO-14
cis-1,2-Dichloroethene	ND	200	"							TO-14
trans-1,2-Dichloroethene	ND	200	"							TO-14
1,2-Dichloropropane	ND	240	"							TO-14
cis-1,3-Dichloropropene	ND	230	"							TO-14
trans-1,3-Dichloropropene	ND	230	"							TO-14
4-Ethyltoluene	ND	250	"							TO-14
Methylene chloride	ND	180	"							TO-14
Styrene	ND	220	"							TO-14
1,1,2,2-Tetrachloroethane	ND	350	"							TO-14
Tetrahydrofuran	ND	150	"							TO-14

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Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 11:41

**TO-15 - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 6072216 - Canister Analysis**

**Blank (6072216-BLK1)**

Prepared & Analyzed: 07/22/16

Tetrachloroethene	ND	350	ug/m <sup>3</sup> Air							TO-14
1,1,2-Trichloroethane	ND	280	"							TO-14
1,1,1-Trichloroethane	ND	280	"							TO-14
Trichloroethene	ND	270	"							TO-14
Trichlorofluoromethane	ND	290	"							TO-14
1,3,5-Trimethylbenzene	ND	250	"							TO-14
1,2,4-Trimethylbenzene	ND	250	"							TO-14
Vinyl acetate	ND	180	"							TO-14
Vinyl chloride	ND	130	"							TO-14
1,4-Dioxane	ND	180	"							TO-14
2-Butanone (MEK)	ND	150	"							TO-14
Methyl isobutyl ketone	ND	210	"							TO-14
Benzene	ND	160	"							TO-14
Toluene	ND	190	"							TO-14
Ethylbenzene	ND	220	"							TO-14
m,p-Xylene	ND	220	"							TO-14
o-Xylene	ND	220	"							TO-14

**Duplicate (6072216-DUP1)**

Source: T161653-01

Prepared & Analyzed: 07/22/16

Acetone	ND	12	ug/m <sup>3</sup> Air		ND				30	
1,3-Butadiene	ND	4.5	"		ND				30	
Carbon Disulfide	ND	3.2	"		ND				30	
1,1,2-trichloro-1,2,2-trifluoroethane (CFC 113)	ND	7.7	"		ND				30	
Isopropyl alcohol	ND	13	"		ND				30	
Bromodichloromethane	ND	6.8	"		ND				30	
Bromoform	ND	11	"		ND				30	
Bromomethane	ND	4.0	"		ND				30	
Carbon tetrachloride	ND	6.4	"		ND				30	
Chlorobenzene	ND	4.7	"		ND				30	
Chloroethane	ND	2.7	"		ND				30	
Chloroform	ND	5.0	"		ND				30	
Chloromethane	ND	11	"		ND				30	
Cyclohexane	ND	3.5	"		ND				30	
Heptane	ND	4.2	"		ND				30	
Hexane	ND	3.6	"		ND				30	

SunStar Laboratories, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Daniel Chavez, Project Manager



25712 Commercentre Drive  
 Lake Forest, California 92630  
 949.297.5020 Phone  
 949.297.5027 Fax

Partner Engineering & Science, Inc.--Tor  
 2154 Torrance Blvd., Suite 20  
 Torrance CA, 90501

Project: 5355 East Airport Drive  
 Project Number: 16-163550.2  
 Project Manager: Samantha Fujita

Reported:  
 07/25/16 11:41

**TO-15 - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 6072216 - Canister Analysis**

**Duplicate (6072216-DUP1)**

**Source: T161653-01**

**Prepared & Analyzed: 07/22/16**

Dibromochloromethane	ND	8.7	ug/m <sup>3</sup> Air		ND				30	
1,2-Dibromoethane (EDB)	ND	7.8	"		ND				30	
1,2-Dichlorobenzene	ND	6.1	"		ND				30	
1,3-Dichlorobenzene	ND	6.1	"		ND				30	
1,4-Dichlorobenzene	ND	6.1	"		ND				30	
Dichlorodifluoromethane	ND	5.0	"		ND				30	
1,1-Dichloroethane	ND	4.1	"		ND				30	
1,2-Dichloroethane	ND	4.1	"		ND				30	
1,1-Dichloroethene	ND	4.0	"		ND				30	
cis-1,2-Dichloroethene	ND	4.0	"		ND				30	
trans-1,2-Dichloroethene	ND	4.0	"		ND				30	
1,2-Dichloropropane	ND	4.7	"		ND				30	
cis-1,3-Dichloropropene	ND	4.6	"		ND				30	
trans-1,3-Dichloropropene	ND	4.6	"		ND				30	
4-Ethyltoluene	ND	5.0	"		ND				30	
Methylene chloride	ND	3.5	"		ND				30	
Styrene	ND	4.3	"		ND				30	
1,1,2,2-Tetrachloroethane	ND	7.0	"		ND				30	
Tetrahydrofuran	ND	3.0	"		ND				30	
Tetrachloroethene	89.7	6.9	"		99.7			10.6	30	
1,1,2-Trichloroethane	ND	5.6	"		ND				30	
1,1,1-Trichloroethane	ND	5.6	"		ND				30	
Trichloroethene	2.92	5.5	"		3.10			5.88	30	
Trichlorofluoromethane	ND	5.7	"		ND				30	
1,3,5-Trimethylbenzene	ND	5.0	"		ND				30	
1,2,4-Trimethylbenzene	ND	5.0	"		ND				30	
Vinyl acetate	ND	3.6	"		ND				30	
Vinyl chloride	ND	2.6	"		ND				30	
1,4-Dioxane	ND	18	"		ND				30	
2-Butanone (MEK)	ND	15	"		ND				30	
Methyl isobutyl ketone	ND	42	"		ND				30	
Benzene	ND	3.3	"		ND				30	
Toluene	2.36	3.8	"		2.98			23.3	30	
Ethylbenzene	ND	4.4	"		ND				30	
m,p-Xylene	9.95	8.8	"		12.3			21.2	30	
o-Xylene	2.93	4.4	"		3.72			23.7	30	

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



25712 Commercentre Drive  
 Lake Forest, California 92630  
 949.297.5020 Phone  
 949.297.5027 Fax

Partner Engineering & Science, Inc.--Tor 2154 Torrance Blvd., Suite 20 Torrance CA, 90501	Project: 5355 East Airport Drive Project Number: 16-163550.2 Project Manager: Samantha Fujita	<b>Reported:</b> 07/25/16 11:41
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**TO-15 - Quality Control**  
**SunStar Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch 6072216 - Canister Analysis**

<b>Duplicate (6072216-DUP1)</b>	<b>Source: T161653-01</b>		<b>Prepared &amp; Analyzed: 07/22/16</b>							
<i>Surrogate: 4-Bromofluorobenzene</i>	33.0		ug/m <sup>3</sup> Air	45.3		73.0	40-160			

SunStar Laboratories, Inc.

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Daniel Chavez, Project Manager



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Lake Forest, California 92630  
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Partner Engineering & Science, Inc.--Tor  
2154 Torrance Blvd., Suite 20  
Torrance CA, 90501

Project: 5355 East Airport Drive  
Project Number: 16-163550.2  
Project Manager: Samantha Fujita

**Reported:**  
07/25/16 11:41

### Notes and Definitions

- TO-14 TO-15 analysis of sample was not performed due to high concentration of analyte(s). Sample was analyzed utilizing method TO-14 and reporting limit has been adjusted accordingly.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

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SunStar Laboratories, Inc.

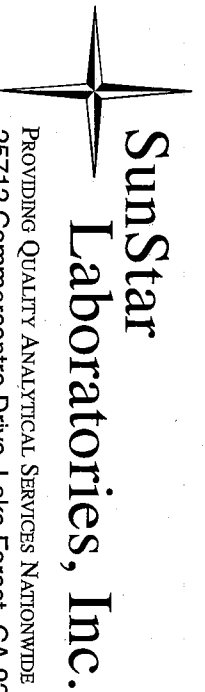
*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

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Daniel Chavez, Project Manager

# AIR LABORATORY

Chain of Custody Record



PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE  
 25712 Commercentre Drive, Lake Forest, CA 92630  
 949-297-5020

Client: Partner ESI  
 Address: 2159 Ravenna Blvd  
 Phone: 3106122738 Fax: \_\_\_\_\_  
 Project Manager: S. Fujita

Date: 7-21-16 Page: 1 of 1  
 Project Name: 5355 East Airport Drive  
 Collector: B. Goble Client Project #: 16-163550.2  
 Batch #: 7161653 EDF #: \_\_\_\_\_

Sample ID	Date Sampled	Start Time	Finish Time	Sample Type: Soil Gas / Indoor Air	Container Type: Summa Can / Tedlar	Initial Pressure	Final Pressure	TO-3	TO-14	TO-15	8015m Methane	8015m Gasoline	Fixed Gases by TCD	Summa Can # / Comments	Laboratory ID #
B5-SG	7-21-16	1609	1619	Soil Gas	Summa	-30	-2			X				0634	01
B7-SG		1646	1655			-30	-2			X				0197	02
B8-SG		1650	1657			-25	-1			X				0084	03
B6-SG		1613	1621			-25	-1			X				0205	04
B4-SG		1555	1603			-25	-1			X				0152	05
B3-SG		1551	1601			-29	-2			X				0867	06
Relinquished by: (signature) _____ Date/ Time _____ Received by: (signature) _____ Date/ Time _____ Relinquished by: (signature) _____ Date/ Time _____ Received by: (signature) _____ Date/ Time _____ Relinquished by: (signature) _____ Date/ Time _____ Received by: (signature) _____ Date/ Time _____															
Total # of containers: <u>6</u> Chain of Custody seals Y/N/K/A: <u>Y</u> Seals intact? Y/N/K/A: <u>Y</u> Received good condition/cold: <u>-</u> Turn around time: <u>Results</u> by <u>lunch</u> on <u>Monday</u> <u>7/25</u> COCAL 146463															

\* TO-15 SIM analysis available upon prior notification. (Pre-certified Summa cans needed)

## SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #:           T161653          

Client Name:           PARTNER           Project:           5355 EAST AIRPORT DRIVE          

Delivered by:      Client    SunStar Courier    GSO    FedEx    Other

If Courier, Received by:           KYLEE           Date/Time Courier Received:           7/22/16 09:37          

Lab Received by:           BRIAN           Date/Time Lab Received:           7/22/16 10:53          

Total number of coolers received: -

Temperature: Cooler #1	°C +/- the CF (- 0.2°C) =	°C corrected temperature
Temperature: Cooler #2	°C +/- the CF (- 0.2°C) =	°C corrected temperature
Temperature: Cooler #3	°C +/- the CF (- 0.2°C) =	°C corrected temperature
<b>Temperature criteria = ≤ 6°C (no frozen containers)</b>		Within criteria? <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>If NO:</b>		
Samples received on ice?	<input type="checkbox"/> Yes	<input type="checkbox"/> No → Complete Non-Conformance Sheet
If on ice, samples received same day collected?	<input type="checkbox"/> Yes → Acceptable	<input type="checkbox"/> No → Complete Non-Conformance Sheet

Custody seals intact on cooler/sample      Yes    No\*    N/A

Sample containers intact      Yes    No\*

Sample labels match Chain of Custody IDs      Yes    No\*

Total number of containers received match COC      Yes    No\*

Proper containers received for analyses requested on COC      Yes    No\*

Proper preservative indicated on COC/containers for analyses requested      Yes    No\*    N/A

Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times      Yes    No\*

\* Complete Non-Conformance Receiving Sheet if checked     Cooler/Sample Review - Initials and date:           Bc 7/22/16          

**Comments:** \_\_\_\_\_



**Project Name: 5355 East Airport Dr. #16-163550.2**

**Company: Partner ESI** **Name: Brian Godbois**  
**Phone: 310-612-2738**

Item	Quantity	Unit
2 oz Jars 24/CS		
4 oz Jars 24/CS		
8 oz Jars 12/CS		
40 ml unpreserved VOAs 100/box		
40 ml HCL-preserved VOAs 72/box		
250 ml Poly 24/CS		
1 Liter Poly 12/CS		
500 ml Poly 16/CS		
500 ml Amber Bottle Wide 12/CS		
1 Liter Amber Bottle 12/CS		
1 Gallon Poly 4/box		
5035 kits:(2)Sodium Bisulfate VOAs 72/box	68	
(1) Methanol VOA 72/box	34	ALREADY INVOICED
(1)Syringe 50/pack	34	
Lock-N-Load Handle 1/pack		
Tedlar Bags 10/pack		
Manifold, Inst. Sampler, Variable Sampler	2 (150 Manifolds)	CHARGE 2
Sub Slab Insert w/ washer & N/F		
Soil Gas SS 16" Drop Tubes		
Gas Extraction Fittings		
Soil Gas Filters		

		# SENT	USED	UNUSED
Batch Certified Summa Canisters	400cc			
	1L	9 (2-NITRO)	CHARGE 0	1
	3L			
	6L			
Individually Certified Summa Canisters	400cc			
	1L			
	3L			
	6L			
Cooler (Sm, Med, Lrg) Number & Quantity		1 (MED)		
Swagelok Fittings: Nuts/Ferrules, Ts		7 (Nuts/Ferrules)	CHARGE 7	
Other: Poly Tube, Valves, Silicon Tape, etc.		3 (60 mL Syringes)	CHARGE 3	

**Prepared By: Aaron** **Date: 7/19/16**  
**Reviewed By:** **Date:**

# Asset Check-In Receipt

SunStar Laboratories Inc.

Check-In Date: 7/22/2016

User Name: Charon, Brian

Asset Tag	Asset Type	Serial No	Location	Customer No.	Customer Name
0067	1000cc: 1000cc Summa	0067	Sunstar Labs, Tustin Air Lab	Partner-Brian G.	Brian Godbois
0084	1000cc: 1000cc Summa	0084	Sunstar Labs, Tustin Air Lab	Partner-Brian G.	Brian Godbois
0115	1000cc: 1000cc Summa	0115	Sunstar Labs, Tustin Air Lab	Partner-Brian G.	Brian Godbois
0152	1000cc: 1000cc Summa	0152	Sunstar Labs, Tustin Air Lab	Partner-Brian G.	Brian Godbois
0197	1000cc: 1000cc Summa	0197	Sunstar Labs, Tustin Air Lab	Partner-Brian G.	Brian Godbois
0205	1000cc: 1000cc Summa	0205	Sunstar Labs, Tustin Air Lab	Partner-Brian G.	Brian Godbois
2048	Vapor Manifold: Vapor Manifold	2048	Sunstar Labs, Lake Forest Air Lab	Partner-Brian G.	Brian Godbois
2075	Vapor Manifold: Vapor Manifold	2075	Sunstar Labs, Lake Forest Air Lab	Partner-Brian G.	Brian Godbois
634	1000cc: 1000cc Summa		Sunstar Labs, Tustin Air Lab	Partner-Brian G.	Brian Godbois

+ 3



**WORK ORDER**

**T161653**

**Client:** Partner Engineering & Science, Inc.--Tor  
**Project:** 5355 East Airport Drive

**Project Manager:** Daniel Chavez  
**Project Number:** 16-163550.2

**Report To:**

Partner Engineering & Science, Inc.--Tor  
Samantha Fujita  
2154 Torrance Blvd., Suite 20  
Torrance, CA 90501

Date Due: 07/25/16 12:00 (1 day TAT)

Received By: Brian Charon

Date Received: 07/22/16 10:53

Logged In By: Brian Charon

Date Logged In: 07/22/16 11:20

Samples Received at:

Custody Seals	No	Received On Ice	No
Containers Intact	Yes		
COC/Labels Agree	Yes		
Preservation Confir	No		

Analysis	Due	TAT	Expires	Comments
<b>T161653-01 B5-SG [Air] Sampled 07/21/16 16:09 (GMT-08:00) Pacific Time (US &amp;</b>				
TO-15	07/25/16 12:00	1	08/20/16 16:09	
<b>T161653-02 B7-SG [Air] Sampled 07/21/16 16:46 (GMT-08:00) Pacific Time (US &amp;</b>				
TO-15	07/25/16 12:00	1	08/20/16 16:46	
<b>T161653-03 B8-SG [Air] Sampled 07/21/16 16:50 (GMT-08:00) Pacific Time (US &amp;</b>				
TO-15	07/25/16 12:00	1	08/20/16 16:50	
<b>T161653-04 B6-SG [Air] Sampled 07/21/16 16:13 (GMT-08:00) Pacific Time (US &amp;</b>				
TO-15	07/25/16 12:00	1	08/20/16 16:13	
<b>T161653-05 B4-SG [Air] Sampled 07/21/16 15:55 (GMT-08:00) Pacific Time (US &amp;</b>				
TO-15	07/25/16 12:00	1	08/20/16 15:55	
<b>T161653-06 B3-SG [Air] Sampled 07/21/16 15:51 (GMT-08:00) Pacific Time (US &amp;</b>				
TO-15	07/25/16 12:00	1	08/20/16 15:51	



August 1, 2016

Ms. Misty Vazquez Ponce  
Partner Engineering & Science, Inc.  
2154 Torrance Blvd., Suite 200  
Torrance, CA 90501

Dear Ms. Ponce:

This letter presents the results of the soil vapor investigation conducted by Optimal Technology (Optimal), for Partner Engineering & Science, Inc. on July 29, 2016. The study was performed at 5355 E. Airport Dr., Ontario, California.

Optimal was contracted to perform a soil vapor survey at this site to screen for possible chlorinated solvents and aromatic hydrocarbons. The primary objective of this soil vapor investigation was to determine if soil vapor contamination is present in the subsurface soil.

### **Gas Sampling Method**

Gas sampling was performed by hydraulically pushing soil gas probes to a depth of 4.0-5.0 feet below ground surface (bgs). An electric rotary hammer drill was used to drill a 1.0-inch diameter hole through the overlying surface to allow probe placement when required. The same electric hammer drill was used to push probes in areas of resistance during placement.

At each sampling location an electric vacuum pump set to draw 0.2 liters per minute (L/min) of soil vapor was attached to the probe and purged prior to sample collection. Vapor samples were obtained in SGE gas-tight syringes by drawing the sample through a luer-lock connection which connects the sampling probe and the vacuum pump. Samples were immediately injected into the gas chromatograph/purge and trap after collection. New tubing was used at each sampling point to prevent cross contamination.

All analyses were performed on a laboratory grade Hewlett Packard model 5890 Series II gas chromatograph equipped with a Hewlett Packard model 5971 Mass Spectra Detector and Tekmar LSC 2000 Purge and Trap. An SGE capillary column using helium as the carrier gas was used to perform all analysis. All results were collected on a personal computer utilizing Hewlett Packard's 5971 MS and chromatographic data collection and handling system.

## Quality Assurance

### *5-Point Calibration*

The initial five point calibration consisted of 20, 50, 100, 200 and 500 ul injections of the calibration standard. A calibration factor on each analyte was generated using a best fit line method using the HP data system. If the  $r^2$  factor generated from this line was not greater than 0.990, an additional five point calibration would have been performed. Method reporting limits were calculated to be 0.01-1.0 micrograms per Liter (ug/L) for the individual compounds.

A daily calibration check and end of run calibration check was performed using a pre-mixed standard supplied by Scotty Analyzed Gases. The standard contained common halogenated solvents and aromatic hydrocarbons (see Table 1). The individual compound concentrations in the standards ranged between 0.025 nanograms per microliter (ng/ul) and 0.25 ng/ul.

**TABLE 1**

Dichlorodifluoromethane	Carbon Tetrachloride	Chloroethane
Trichlorofluoromethane	1,2-Dichloroethane	Benzene
1,1-Dichloroethene	Trichloroethene	Toluene
Methylene Chloride	1,1,2-Trichloroethane	Ethylbenzene
trans-1,2-Dichloroethene	Tetrachloroethene	m-/p-Xylene
1,1-Dichloroethane	Chloroform	o-Xylene
cis-1,2-Dichloroethene	1,1,1,2-Tetrachloroethane	Vinyl Chloride
1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	Freon 113
4-Methyl-2-Pentanone	Cyclohexane	Acetone
Chlorobenzene	2-Butanone	Isobutane

### *Sample Replicates*

A replicate analysis (duplicate) was run to evaluate the reproducibility of the sampling system and instrument. The difference between samples did not vary more than 20%.

### *Equipment Blanks*

Blanks were run at the beginning of each workday and after calibrations. The blanks were collected using an ambient air sample. These blanks checked the septum, syringe, GC column, GC detector and the ambient air. Contamination was not found in any of the blanks analyzed during this investigation. Blank results are given along with the sample results.

### *Tracer Gas Leak Test*

A tracer gas was applied to the soil gas probes at each point of connection in which ambient air could enter the sampling system. These points include the top of the sampling probe where the tubing meets the probe connection and the surface bentonite seals. Isobutane was used as the tracer gas. No Isobutane was found in any of the samples collected.

### *Purge Volume*

The standard purge volume of three volumes was purged in accordance with the July 2015 DTSC/RWQCB Advisory for Active Soil Gas Investigations.

### *Shut-in Test*

A shut-in test was conducted prior to purging or sampling each location to check for leaks in the above-ground sampling system. The system was evaluated to a minimum measured vacuum of 100 inches of water. The vacuum gauge was calibrated and sensitive enough to indicate a water pressure change of at least 0.5 inches.

### **Scope of Work**

To achieve the objective of this investigation a total of 15 vapor samples were collected from 14 locations at the site. Sampling depths, vacuum readings, purge volume and sampling volumes are given on the analytical results page. All the collected vapor samples were analyzed on-site using Optimal's mobile laboratory.

### **Subsurface Conditions**

Subsurface soil conditions at this site were predominately silty-sand from ground surface to 5.0 feet bgs. These soil conditions offered sampling flows at 0" water vacuum. Depth to groundwater was unknown at the time of the investigation.

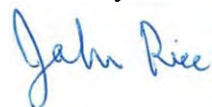
### **Results**

During this vapor investigation three samples contained levels of Tetrachloroethene (PCE). PCE levels ranged from 0.12 ug/L to 0.23 ug/L. None of the other compounds listed in Table 1 above were detected above the listed reporting limits. A complete table of analytical results is included with this report.

### **Disclaimer**

All conclusions presented in this letter are based solely on the information collected by the soil vapor survey conducted by Optimal Technology. Soil vapor testing is only a subsurface screening tool and does not represent actual contaminant concentrations in either the soil and/or groundwater. We enjoyed working with you on this project and look forward to future projects. If you have any questions please contact me at (877) 764-5427.

Sincerely,



John Rice  
Project Manager



**SOIL VAPOR RESULTS**

**Site Name:** 5355 E Airport Dr., Ontario, CA  
**Analyst:** J. Rice    **Collector:** J. Rice  
**Method:** Modified EPA 8260B

**Lab Name:** Optimal Technology  
**Inst. ID:** HP-5890 Series II  
**Detector:** HP-5971 Mass Spectrometer

**Date:** 7/29/16  
**Page:** 1 of 2

SAMPLE ID
Sampling Depth (Ft.)
Purge Volume (ml)
Vacuum (in. of Water)
Injection Volume (ul)
Dilution Factor

BLANK-1	SV-13-5'	SV-14-4'	SV-15-5'	SV-16-4'	SV-17-5'	SV-18-5'	SV-19-5'
N/A	5.0	4.0	5.0	4.0	5.0	5.0	5.0
N/A	1,500	1,500	1,500	1,500	1,500	1,500	1,500
N/A	0	0	0	0	0	0	0
50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
1	1	1	1	1	1	1	1

COMPOUND	REP. LIMIT
Dichlorodifluoromethane	1.00
Chloroethane	1.00
Trichlorofluoromethane	1.00
Freon 113	1.00
Methylene Chloride	1.00
1,1-Dichloroethane	1.00
Chloroform	1.00
1,1,1-Trichloroethane	1.00
Carbon Tetrachloride	0.02
1,2-Dichloroethane	0.04
Trichloroethene (TCE)	0.10
1,1,2-Trichloroethane	1.00
<b>Tetrachloroethene (PCE)</b>	0.10
1,1,1,2-Tetrachloroethane	1.00
1,1,1,2,2-Tetrachloroethane	1.00
Vinyl Chloride	0.01
Acetone	1.00
1,1-Dichloroethene	1.00
trans-1,2-Dichloroethene	1.00
2-Butanone (MEK)	1.00
cis-1,2-Dichloroethene	1.00
Cyclohexane	1.00
Benzene	0.03
4-Methyl-2-Pentanone	1.00
Toluene	1.00
Chlorobenzene	1.00
Ethylbenzene	0.40
m/p-Xylene	1.00
o-Xylene	1.00
Isobutane (Tracer Gas)	1.00

CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	0.23	0.12	0.18	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND

**Note:** ND = Below Listed Reporting Limit



### SOIL VAPOR RESULTS

**Site Name:** 5355 E Airport Dr., Ontario, CA  
**Analyst:** J. Rice     **Collector:** J. Rice  
**Method:** Modified EPA 8260B

**Lab Name:** Optimal Technology  
**Inst. ID:** HP-5890 Series II  
**Detector:** HP-5971 Mass Spectrometer

**Date:** 7/29/16

**Page:** 2 of 2

SAMPLE ID
Sampling Depth (Ft.)
Purge Volume (ml)
Vacuum (in. of Water)
Injection Volume (ul)
Dilution Factor

SV-20-5'	SV-21-5'	SV-22-5'	SV-23-5'	SV-24-5'	SV-25-5'	SV-26-5'	SV-26-5' Dup
5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
0	0	0	0	0	0	0	0
50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
1	1	1	1	1	1	1	1

COMPOUND	REP. LIMIT
Dichlorodifluoromethane	1.00
Chloroethane	1.00
Trichlorofluoromethane	1.00
Freon 113	1.00
Methylene Chloride	1.00
1,1-Dichloroethane	1.00
Chloroform	1.00
1,1,1-Trichloroethane	1.00
Carbon Tetrachloride	0.02
1,2-Dichloroethane	0.04
Trichloroethene (TCE)	0.10
1,1,2-Trichloroethane	1.00
Tetrachloroethene (PCE)	0.10
1,1,1,2-Tetrachloroethane	1.00
1,1,2,2-Tetrachloroethane	1.00
Vinyl Chloride	0.01
Acetone	1.00
1,1-Dichloroethene	1.00
trans-1,2-Dichloroethene	1.00
2-Butanone (MEK)	1.00
cis-1,2-Dichloroethene	1.00
Cyclohexane	1.00
Benzene	0.03
4-Methyl-2-Pentanone	1.00
Toluene	1.00
Chlorobenzene	1.00
Ethylbenzene	0.40
m/p-Xylene	1.00
o-Xylene	1.00
Isobutane (Tracer Gas)	1.00

CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)	CONC (ug/L)
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND
ND	ND	ND	ND	ND	ND	ND	ND

**Note:** ND = Below Listed Reporting Limit

**APPENDIX E**  
**ENVIRONMENTAL DATABASE REPORT**

PHASE I/PHASE II  
ENVIRONMENTAL SITE ASSESSMENT REPORT  
5355 East Airport Drive  
Ontario, California

Farallon PN: 1071-080 (Task 2)

**5355 East Airport Drive**

5355 East Airport Drive

Ontario, CA 91761

Inquiry Number: 6782886.2s

December 09, 2021

## EDR Summary Radius Map Report



6 Armstrong Road, 4th floor  
Shelton, CT 06484  
Toll Free: 800.352.0050  
[www.edrnet.com](http://www.edrnet.com)



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***Thank you for your business.***  
 Please contact EDR at 1-800-352-0050  
 with any questions or comments.

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## EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E1527-21), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

### TARGET PROPERTY INFORMATION

#### ADDRESS

5355 EAST AIRPORT DRIVE  
ONTARIO, CA 91761

#### COORDINATES

Latitude (North): 34.0634610 - 34° 3' 48.45"  
Longitude (West): 117.5334850 - 117° 32' 0.54"  
Universal Transverse Mercator: Zone 11  
UTM X (Meters): 450769.1  
UTM Y (Meters): 3769126.2  
Elevation: 983 ft. above sea level

### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property: TP  
Source: U.S. Geological Survey

### AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from: 20140603  
Source: USDA

MAPPED SITES SUMMARY

Target Property Address:  
5355 EAST AIRPORT DRIVE  
ONTARIO, CA 91761

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
<a href="#">A1</a>	JD HEISKELL HOLDINGS	5355 E AIRPORT DR	HAZNET, HWTS		TP
<a href="#">A2</a>	J D HEISKELL HOLDING	5355 EAST AIRPORT DR	CA FID UST, EMI, CIWQS, CERS, HWTS		TP
<a href="#">A3</a>	J D HEISKELL HOLDING	5355 E. AIRPORT DR.	CIWQS		TP
<a href="#">A4</a>	GEORGE VERHOEVEN GRA	5355 E AIRPORT DR	FINDS, ECHO		TP
<a href="#">A5</a>	COAST GRAIN INC	5355 E AIRPORT DR	UST, AST, CERS HAZ WASTE, SWEEPS UST, CERS TANKS,...		TP
<a href="#">A6</a>	J D HEISKELL HOLDING	5355 E AIRPORT DR	WDS		TP
<a href="#">A7</a>	COAST GRAIN COMPANY	5355 E. AIRPORT DR.	EMI		TP
<a href="#">A8</a>	JOHN POWELL	5355 E AIRPORT DR	HAZNET, HWTS		TP
<a href="#">A9</a>	G & R TRANSPORTATION	5355 E AIRPORT DR	HAULERS		TP
<a href="#">A10</a>	GEORGE VERHOEVEN GRA	5355 E AIRPORT DR	RCRA NonGen / NLR		TP
<a href="#">A11</a>	GEORGE VERHOEVEN GRA	5355 E AIRPORT DR	EMI		TP
<a href="#">A12</a>	GEORGE VERHOEVEN GRA	5355 EAST AIRPORT DR	FINDS		TP
<a href="#">A13</a>	GEORGE VERHOEVEN GRA	5355 E AIRPORT DR 17	CIWQS		TP
<a href="#">A14</a>	COAST GRAIN INC	5355 E AIRPORT DR	HAZNET, HWTS		TP
<a href="#">B15</a>	VERIZON WIRELESS-INL	5351 E. AIRPORT DR	AST	Lower	149, 0.028, WSW
<a href="#">B16</a>	VERIZON WIRELESS	5351 E AIRPORT DR	HAZNET, San Bern. Co. Permit, HWTS	Lower	149, 0.028, WSW
<a href="#">B17</a>	VERIZON WIRELESS	5351 E AIRPORT DR	CERS TANKS, HAZNET, CERS, HWTS	Lower	149, 0.028, WSW
<a href="#">C18</a>	UNION PACIFIC RAILRO	5231 AIRPORT DR.	RCRA NonGen / NLR	Higher	557, 0.105, West
<a href="#">C19</a>	KOPPERS COMPANY INC	12200 AIRPORT DRIVE	ENVIROSTOR, HWP, CERS	Lower	614, 0.116, WSW
<a href="#">D20</a>	K-MART, ONTARIO DIST	5600 AIRPORT DR	LUST, SWEEPS UST, HIST UST, Cortese, HIST CORTESE,...	Lower	635, 0.120, ESE
<a href="#">D21</a>	ONTARIO DISTRIBUTION	5600 E AIRPORT DR	SWEEPS UST, HIST UST, CA FID UST, EMI, NPDES, WDS,...	Lower	635, 0.120, ESE
<a href="#">D22</a>	COSTCO WHOLESALE	5600 E AIRPORT DR.	RCRA NonGen / NLR	Lower	635, 0.120, ESE
<a href="#">D23</a>	K MART DISTRIBUTION	5600 E. AIRPORT DR	AST	Lower	635, 0.120, ESE
<a href="#">D24</a>	K MART DISTRIBUTION	5600 E AIRPORT DR	HAZNET, NPDES, San Bern. Co. Permit, CIWQS, HWTS	Lower	635, 0.120, ESE
<a href="#">D25</a>	ONTARIO DISTRIBUTION	5600 AIRPORT DR	HIST UST	Lower	635, 0.120, ESE
<a href="#">D26</a>	KMART #8287	5600 E AIRPORT DR	AST	Lower	635, 0.120, ESE
<a href="#">D27</a>	COSTCO LOGISTICS - O	5600 EAST AIRPORT DR	RCRA-SQG	Lower	635, 0.120, ESE
<a href="#">D28</a>	KMART #8287	5600 EAST AIRPORT DR	RCRA-LQG	Lower	635, 0.120, ESE
<a href="#">D29</a>	PRAXAIR, INC	5735 E AIRPORT	San Bern. Co. Permit	Lower	793, 0.150, ESE
<a href="#">D30</a>	UNION CARBIDE CORP L	5735 AIRPORT DR	HIST UST, EMI	Lower	793, 0.150, ESE
<a href="#">D31</a>	UNION CARBIDE CORP L	5735 E AIRPORT DRIVE	HIST UST	Lower	793, 0.150, ESE
<a href="#">D32</a>	LINDE IN	5705 E AIRPORT DR BL	RCRA NonGen / NLR	Lower	793, 0.150, East
<a href="#">D33</a>	UNION CARBIDE CORP L	5705 E AIRPORT DR	SWEEPS UST	Lower	793, 0.150, East
<a href="#">D34</a>	PRAXAIR, INC	5705 E AIRPORT DR	UST	Lower	793, 0.150, East
<a href="#">D35</a>	PRAXAIR INC	5705 E AIRPORT DR	RCRA-SQG, LUST, CERS HAZ WASTE, CERS TANKS, TRIS,...	Lower	793, 0.150, East
<a href="#">D36</a>	PRAXAIR, INC - 986	5705 E AIRPORT DR	AST	Lower	793, 0.150, East
<a href="#">D37</a>	LINDE INC - 986	5705 E AIRPORT DR	UST	Lower	793, 0.150, East
<a href="#">D38</a>	KENAN ADVANTAGE GROU	5705 E AIRPORT DR #	RCRA NonGen / NLR	Lower	793, 0.150, East
<a href="#">D39</a>	PRAXAIR, INC.	5705 E. AIRPORT DR.	AST, EMI	Lower	793, 0.150, East

MAPPED SITES SUMMARY

Target Property Address:  
5355 EAST AIRPORT DRIVE  
ONTARIO, CA 91761

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
<a href="#">D40</a>	JACK B KELLEY ONTARI	5705 E AIRPORT DR ST	San Bern. Co. Permit, WDS, CIWQS	Lower	793, 0.150, East
<a href="#">D41</a>	OLD DOMINION FREIGHT	5705 AIRPORT DRIVE	LUST, SWEEPS UST, HIST UST, CA FID UST, EMI, HIST...	Lower	793, 0.150, East
<a href="#">D42</a>	UNION CARBIDE	5705 AIRPORT DRIVE E	CPS-SLIC, CERS	Lower	793, 0.150, East
<a href="#">D43</a>	PRAXAIR, INC.	5705 EAST AIRPORT DR	RCRA-SQG	Lower	793, 0.150, East
<a href="#">D44</a>	OLD DOMINION FREIGHT	5705 AIRPORT DRIVE	RCRA NonGen / NLR	Lower	793, 0.150, East
<a href="#">C45</a>	FIVE BROTHERS INC	5235 E AIRPORT DR	SWEEPS UST	Higher	809, 0.153, West
<a href="#">C46</a>	FIVE BROTH4R INC	5235 E AIRPORT	CA FID UST	Higher	809, 0.153, West
<a href="#">E47</a>	DOREL INDUSTRIES-AME	5400 SHEA CENTER DR	CERS HAZ WASTE, HAZNET, San Bern. Co. Permit,...	Higher	879, 0.166, NE
<a href="#">E48</a>	DOREL INDUSTRIES-AME	5400 SHEA CENTER DR	RCRA NonGen / NLR	Higher	879, 0.166, NE
<a href="#">49</a>	EMSER TILE	5300 SHEA CENTER DRI	NPDES, San Bern. Co. Permit, CERS	Higher	958, 0.181, North
<a href="#">F50</a>	KOPPERS COMPANY INC	12200 AIRPORT DRIVE	SEMS-ARCHIVE, CORRACTS, RCRA-TSDF, RCRA-SQG	Lower	1049, 0.199, West
<a href="#">F51</a>	CHEM LAB PRODUCTS	5180 E AIRPORT DR	CHMIRS, San Bern. Co. Permit	Lower	1065, 0.202, WSW
<a href="#">F52</a>	BIOLAB INC	5160 5180 E AIRPORT	HIST UST, NPDES, CIWQS, CERS	Lower	1065, 0.202, WSW
<a href="#">G53</a>	UNION CARBIDE CORP L	5702 E AIRPORT DR	RCRA-SQG, CPS-SLIC, FINDS, ECHO, HAZNET, HWTS	Lower	1211, 0.229, ESE
<a href="#">H54</a>	KOPPERS - ONTARIO	5101 E. AIRPORT DRIV	CA BOND EXP. PLAN, CERS	Higher	1269, 0.240, West
<a href="#">H55</a>	KOPPERS COMPANY, INC	5101 AIRPORT DR	HIST UST	Higher	1269, 0.240, West
<a href="#">H56</a>	MISSION LANDSCAPE CO	5101 EAST AIRPORT DR	SWEEPS UST, HIST UST, CA FID UST, HAZNET, HWTS	Higher	1269, 0.240, West
<a href="#">H57</a>	KOPPERS - ONTARIO	5101 E. AIRPORT DRIV	RESPONSE, ENVIROSTOR, DEED, San Bern. Co. Permit,...	Higher	1269, 0.240, West
<a href="#">58</a>	DB BUILDING FASTENER	5555 GIBRALTER ST	RCRA NonGen / NLR	Higher	1275, 0.241, NNE
<a href="#">G59</a>	UNION CARHIDE INDUST	12866 AIRPORT DRIVE	RCRA-SQG, FINDS, ECHO	Lower	1290, 0.244, East
<a href="#">I60</a>	GULF SOUTH MEDICAL S	5200 SHEA CENTER DR	San Bern. Co. Permit	Higher	1290, 0.244, NW
<a href="#">I61</a>	COOPER LIGHTING	5200 SHEA CENTER DR	San Bern. Co. Permit	Higher	1290, 0.244, NW
<a href="#">J62</a>	CHEM LAB PRODUCTS	5160 EAST AIRPOT DRI	SEMS	Lower	1417, 0.268, WSW
<a href="#">J63</a>	BIO LAB INC	5160 E AIRPORT DR	SEMS-ARCHIVE, CORRACTS, RCRA-TSDF, RCRA-SQG, 2020	Lower	1417, 0.268, WSW
<a href="#">J64</a>	CHEM LAB PRODUCTS IN	5160 AIRPORT DR	ENVIROSTOR, HIST UST, CHMIRS	Lower	1417, 0.268, WSW
<a href="#">J65</a>	BIO-LAB INC	5160 E AIRPORT DR	CHMIRS, HWP	Lower	1417, 0.268, WSW
<a href="#">66</a>	FACILITY 13509-1	225 WINEVILLE	HIST CORTESE	Lower	2168, 0.411, WSW

## EXECUTIVE SUMMARY

### TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 9 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
JD HEISKELL HOLDINGS 5355 E AIRPORT DR ONTARIO, CA 91761	HAZNET GEPAID: CAL000271944  HWTS	N/A
J D HEISKELL HOLDING 5355 EAST AIRPORT DR ONTARIO, CA 91761	CA FID UST Facility Id: 36001144 Status: A  EMI Facility Id: 52930 Facility Id: 134997 Facility Id: 131781  CIWQS CERS HWTS	N/A
J D HEISKELL HOLDING 5355 E. AIRPORT DR. ONTARIO, CA 91761	CIWQS	N/A
GEORGE VERHOEVEN GRA 5355 E AIRPORT DR ONTARIO, CA 91761	FINDS Registry ID:: 110065710724  ECHO Registry ID: 110065710724	N/A
COAST GRAIN INC 5355 E AIRPORT DR ONTARIO, CA 91761	UST Database: UST, Date of Government Version: 09/07/2021 Facility Id: 87013578  AST Database: AST, Date of Government Version: 07/06/2016  CERS HAZ WASTE SWEEPS UST Status: A Tank Status: A Comp Number: 13578  CERS TANKS NPDES Facility Status: Active  San Bern. Co. Permit Facility Status: ACTIVE Facility Status: INACTIVE Facility Id: FA0013823 Facility Id: FA0013111	N/A

## EXECUTIVE SUMMARY

	Facility Id: FA0002405	
	WDS	
	Facility Status: A	
	Facility Id: 8 36I000195	
	CERS	
	HWTS	
J D HEISKELL HOLDING 5355 E AIRPORT DR ONTARIO, CA 91761	WDS Facility Status: A Facility Id: 8 36I018142	N/A
COAST GRAIN COMPANY 5355 E. AIRPORT DR. ONTARIO, CA. 91761, CA 91761	EMI Facility Id: 52930	N/A
JOHN POWELL 5355 E AIRPORT DR ONTARIO, CA 91761	HAZNET GEPaid: CAC002610962 HWTS	N/A
G & R TRANSPORTATION 5355 E AIRPORT DR ONTARIO, CA	HAULERS Facility ID: 1630911	N/A
GEORGE VERHOEVEN GRA 5355 E AIRPORT DR ONTARIO, CA 91761	RCRA NonGen / NLR EPA ID:: CAL000354338	CAL000354338
GEORGE VERHOEVEN GRA 5355 E AIRPORT DR ONTARIO, CA 91761	EMI Facility Id: 163123	N/A
GEORGE VERHOEVEN GRA 5355 EAST AIRPORT DR ONTARIO, CA 91761	FINDS Registry ID:: 110010471239	N/A
GEORGE VERHOEVEN GRA 5355 E AIRPORT DR 17 ONTARIO, CA 91761	CIWQS	N/A
COAST GRAIN INC 5355 E AIRPORT DR ONTARIO, CA 91761	HAZNET GEPaid: CAC002559383 HWTS	N/A

# EXECUTIVE SUMMARY

## SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

## STANDARD ENVIRONMENTAL RECORDS

### ***Lists of Federal sites subject to CERCLA removals and CERCLA orders***

SEMS: A review of the SEMS list, as provided by EDR, and dated 10/20/2021 has revealed that there is 1 SEMS site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
CHEM LAB PRODUCTS Site ID: 0908439 EPA Id: CAN000908439	5160 EAST AIRPOT DRI	WSW 1/4 - 1/2 (0.268 mi.)	J62	25

### ***Lists of Federal CERCLA sites with NFRAP***

SEMS-ARCHIVE: A review of the SEMS-ARCHIVE list, as provided by EDR, and dated 10/20/2021 has revealed that there are 2 SEMS-ARCHIVE sites within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b><i>KOPPERS COMPANY INC</i></b> Site ID: 0900327 EPA Id: CAT000617324	<b><i>12200 AIRPORT DRIVE</i></b>	<b><i>W 1/8 - 1/4 (0.199 mi.)</i></b>	<b><i>F50</i></b>	<b><i>21</i></b>
<b><i>BIO LAB INC</i></b> Site ID: 0900364 EPA Id: CAD008302895	<b><i>5160 E AIRPORT DR</i></b>	<b><i>WSW 1/4 - 1/2 (0.268 mi.)</i></b>	<b><i>J63</i></b>	<b><i>25</i></b>

### ***Lists of Federal RCRA facilities undergoing Corrective Action***

CORRACTS: A review of the CORRACTS list, as provided by EDR, and dated 09/13/2021 has revealed that there are 2 CORRACTS sites within approximately 1 mile of the target property.

## EXECUTIVE SUMMARY

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>KOPPERS COMPANY INC</b> EPA ID:: CAT000617324	<b>12200 AIRPORT DRIVE</b>	<b>W 1/8 - 1/4 (0.199 mi.)</b>	<b>F50</b>	<b>21</b>
<b>BIO LAB INC</b> EPA ID:: CAD008302895	<b>5160 E AIRPORT DR</b>	<b>WSW 1/4 - 1/2 (0.268 mi.)</b>	<b>J63</b>	<b>25</b>

### ***Lists of Federal RCRA TSD facilities***

RCRA-TSDF: A review of the RCRA-TSDF list, as provided by EDR, and dated 09/13/2021 has revealed that there are 2 RCRA-TSDF sites within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>KOPPERS COMPANY INC</b> EPA ID:: CAT000617324	<b>12200 AIRPORT DRIVE</b>	<b>W 1/8 - 1/4 (0.199 mi.)</b>	<b>F50</b>	<b>21</b>
<b>BIO LAB INC</b> EPA ID:: CAD008302895	<b>5160 E AIRPORT DR</b>	<b>WSW 1/4 - 1/2 (0.268 mi.)</b>	<b>J63</b>	<b>25</b>

### ***Lists of Federal RCRA generators***

RCRA-LQG: A review of the RCRA-LQG list, as provided by EDR, and dated 09/13/2021 has revealed that there is 1 RCRA-LQG site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>KMART #8287</b> EPA ID:: CAD982038176	<b>5600 EAST AIRPORT DR</b>	<b>ESE 0 - 1/8 (0.120 mi.)</b>	<b>D28</b>	<b>16</b>

RCRA-SQG: A review of the RCRA-SQG list, as provided by EDR, and dated 09/13/2021 has revealed that there are 6 RCRA-SQG sites within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>COSTCO LOGISTICS - O</b>	<b>5600 EAST AIRPORT DR</b>	<b>ESE 0 - 1/8 (0.120 mi.)</b>	<b>D27</b>	<b>15</b>
<b>PRAXAIR INC</b> EPA ID:: CAR000151886	<b>5705 E AIRPORT DR</b>	<b>E 1/8 - 1/4 (0.150 mi.)</b>	<b>D35</b>	<b>17</b>
<b>PRAXAIR, INC.</b> EPA ID:: CAL000139839	<b>5705 EAST AIRPORT DR</b>	<b>E 1/8 - 1/4 (0.150 mi.)</b>	<b>D43</b>	<b>20</b>
<b>KOPPERS COMPANY INC</b> EPA ID:: CAT000617324	<b>12200 AIRPORT DRIVE</b>	<b>W 1/8 - 1/4 (0.199 mi.)</b>	<b>F50</b>	<b>21</b>
<b>UNION CARBIDE CORP L</b> EPA ID:: CAD981634728	<b>5702 E AIRPORT DR</b>	<b>ESE 1/8 - 1/4 (0.229 mi.)</b>	<b>G53</b>	<b>22</b>
<b>UNION CARHIDE INDUST</b> EPA ID:: CAD008392920	<b>12866 AIRPORT DRIVE</b>	<b>E 1/8 - 1/4 (0.244 mi.)</b>	<b>G59</b>	<b>24</b>



## EXECUTIVE SUMMARY

### ***Lists of state- and tribal (Superfund) equivalent sites***

RESPONSE: A review of the RESPONSE list, as provided by EDR, has revealed that there is 1 RESPONSE site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>KOPPERS - ONTARIO</b> Database: RESPONSE, Date of Government Version: 07/22/2021 Status: Certified O&M - Land Use Restrictions Only Facility Id: 36240001	<b>5101 E. AIRPORT DRIV</b>	<b>W 1/8 - 1/4 (0.240 mi.)</b>	<b>H57</b>	<b>23</b>

### ***Lists of state- and tribal hazardous waste facilities***

ENVIROSTOR: A review of the ENVIROSTOR list, as provided by EDR, and dated 07/22/2021 has revealed that there are 3 ENVIROSTOR sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>KOPPERS - ONTARIO</b> Facility Id: 36240001 Status: Certified O&M - Land Use Restrictions Only	<b>5101 E. AIRPORT DRIV</b>	<b>W 1/8 - 1/4 (0.240 mi.)</b>	<b>H57</b>	<b>23</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>KOPPERS COMPANY INC</b> Facility Id: 80001796 Status: Refer: RWQCB	<b>12200 AIRPORT DRIVE</b>	<b>WSW 0 - 1/8 (0.116 mi.)</b>	<b>C19</b>	<b>13</b>
<b>CHEM LAB PRODUCTS IN</b> Facility Id: 36280136 Facility Id: 80001548 Status: Refer: RCRA Status: No Further Action	<b>5160 AIRPORT DR</b>	<b>WSW 1/4 - 1/2 (0.268 mi.)</b>	<b>J64</b>	<b>25</b>

### ***Lists of state and tribal leaking storage tanks***

LUST: A review of the LUST list, as provided by EDR, has revealed that there are 3 LUST sites within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>K-MART, ONTARIO DIST</b> Database: LUST REG 8, Date of Government Version: 02/14/2005 Database: LUST, Date of Government Version: 09/07/2021 Global Id: T0607100254 Global ID: T0607100254 Status: Completed - Case Closed Facility Status: Case Closed	<b>5600 AIRPORT DR</b>	<b>ESE 0 - 1/8 (0.120 mi.)</b>	<b>D20</b>	<b>13</b>
<b>PRAXAIR INC</b> Database: LUST, Date of Government Version: 09/07/2021	<b>5705 E AIRPORT DR</b>	<b>E 1/8 - 1/4 (0.150 mi.)</b>	<b>D35</b>	<b>17</b>

## EXECUTIVE SUMMARY

Global Id: T0607100045  
 Status: Completed - Case Closed

<b>OLD DOMINION FREIGHT</b>	<b>5705 AIRPORT DRIVE</b>	<b>E 1/8 - 1/4 (0.150 mi.)</b>	<b>D41</b>	<b>19</b>
Database: LUST REG 8, Date of Government Version: 02/14/2005				
Global ID: T0607100045				
Facility Status: Case Closed				

CPS-SLIC: A review of the CPS-SLIC list, as provided by EDR, has revealed that there are 2 CPS-SLIC sites within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>UNION CARBIDE</b>	<b>5705 AIRPORT DRIVE E</b>	<b>E 1/8 - 1/4 (0.150 mi.)</b>	<b>D42</b>	<b>19</b>
Database: CPS-SLIC, Date of Government Version: 09/07/2021				
Global Id: SLT8R2614112				
Facility Status: Completed - Case Closed				
<b>UNION CARBIDE CORP L</b>	<b>5702 E AIRPORT DR</b>	<b>ESE 1/8 - 1/4 (0.229 mi.)</b>	<b>G53</b>	<b>22</b>
Database: SLIC REG 8, Date of Government Version: 04/03/2008				

### ***Lists of state and tribal registered storage tanks***

UST: A review of the UST list, as provided by EDR, has revealed that there are 2 UST sites within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
PRAXAIR, INC	5705 E AIRPORT DR	E 1/8 - 1/4 (0.150 mi.)	D34	17
Database: UST, Date of Government Version: 09/07/2021				
Facility Id: 86009824				
LINDE INC - 986	5705 E AIRPORT DR	E 1/8 - 1/4 (0.150 mi.)	D37	18
Database: UST, Date of Government Version: 09/07/2021				
Facility Id: FA0005384				

AST: A review of the AST list, as provided by EDR, has revealed that there are 5 AST sites within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
VERIZON WIRELESS-INL	5351 E. AIRPORT DR	WSW 0 - 1/8 (0.028 mi.)	B15	12
Database: AST, Date of Government Version: 07/06/2016				
K MART DISTRIBUTION	5600 E. AIRPORT DR	ESE 0 - 1/8 (0.120 mi.)	D23	14
Database: AST, Date of Government Version: 07/06/2016				
KMART #8287	5600 E AIRPORT DR	ESE 0 - 1/8 (0.120 mi.)	D26	15
Database: AST, Date of Government Version: 07/06/2016				
PRAXAIR, INC - 986	5705 E AIRPORT DR	E 1/8 - 1/4 (0.150 mi.)	D36	18
Database: AST, Date of Government Version: 07/06/2016				
<b>PRAXAIR, INC.</b>	<b>5705 E. AIRPORT DR.</b>	<b>E 1/8 - 1/4 (0.150 mi.)</b>	<b>D39</b>	<b>18</b>
Database: AST, Date of Government Version: 07/06/2016				

## EXECUTIVE SUMMARY

### ADDITIONAL ENVIRONMENTAL RECORDS

#### **Local Lists of Hazardous waste / Contaminated Sites**

CERS HAZ WASTE: A review of the CERS HAZ WASTE list, as provided by EDR, and dated 07/15/2021 has revealed that there are 2 CERS HAZ WASTE sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>DOREL INDUSTRIES-AME</b>	<b>5400 SHEA CENTER DR</b>	<b>NE 1/8 - 1/4 (0.166 mi.)</b>	<b>E47</b>	<b>20</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>PRAXAIR INC</b>	<b>5705 E AIRPORT DR</b>	<b>E 1/8 - 1/4 (0.150 mi.)</b>	<b>D35</b>	<b>17</b>

#### **Local Lists of Registered Storage Tanks**

SWEEPS UST: A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 6 SWEEPS UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>FIVE BROTHERS INC</b> Comp Number: 550	<b>5235 E AIRPORT DR</b>	<b>W 1/8 - 1/4 (0.153 mi.)</b>	<b>C45</b>	<b>20</b>
<b>MISSION LANDSCAPE CO</b> Comp Number: 3276	<b>5101 EAST AIRPORT DR</b>	<b>W 1/8 - 1/4 (0.240 mi.)</b>	<b>H56</b>	<b>23</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>K-MART, ONTARIO DIST</b> Status: A Comp Number: 65657	<b>5600 AIRPORT DR</b>	<b>ESE 0 - 1/8 (0.120 mi.)</b>	<b>D20</b>	<b>13</b>
<b>ONTARIO DISTRIBUTION</b> Status: A Tank Status: A Comp Number: 48475	<b>5600 E AIRPORT DR</b>	<b>ESE 0 - 1/8 (0.120 mi.)</b>	<b>D21</b>	<b>14</b>
<b>UNION CARBIDE CORP L</b> Status: A Tank Status: A Comp Number: 29766	<b>5705 E AIRPORT DR</b>	<b>E 1/8 - 1/4 (0.150 mi.)</b>	<b>D33</b>	<b>17</b>
<b>OLD DOMINION FREIGHT</b> Status: A Tank Status: A Comp Number: 20414	<b>5705 AIRPORT DRIVE</b>	<b>E 1/8 - 1/4 (0.150 mi.)</b>	<b>D41</b>	<b>19</b>

## EXECUTIVE SUMMARY

HIST UST: A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 9 HIST UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
KOPPERS COMPANY, INC Facility Id: 00000003276 Facility Id: 00000042153	5101 AIRPORT DR	W 1/8 - 1/4 (0.240 mi.)	H55	22
<b>MISSION LANDSCAPE CO</b>	<b>5101 EAST AIRPORT DR</b>	<b>W 1/8 - 1/4 (0.240 mi.)</b>	<b>H56</b>	<b>23</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>K-MART, ONTARIO DIST</b> Facility Id: 00000065657	<b>5600 AIRPORT DR</b>	<b>ESE 0 - 1/8 (0.120 mi.)</b>	<b>D20</b>	<b>13</b>
<b>ONTARIO DISTRIBUTION</b> ONTARIO DISTRIBUTION Facility Id: 00000048475	<b>5600 E AIRPORT DR</b> 5600 AIRPORT DR	<b>ESE 0 - 1/8 (0.120 mi.)</b> ESE 0 - 1/8 (0.120 mi.)	<b>D21</b> D25	<b>14</b> 15
<b>UNION CARBIDE CORP L</b> Facility Id: 00000029766	<b>5735 AIRPORT DR</b>	<b>ESE 1/8 - 1/4 (0.150 mi.)</b>	<b>D30</b>	<b>16</b>
UNION CARBIDE CORP L	5735 E AIRPORT DRIVE	ESE 1/8 - 1/4 (0.150 mi.)	D31	16
<b>OLD DOMINION FREIGHT</b> Facility Id: 00000020414	<b>5705 AIRPORT DRIVE</b>	<b>E 1/8 - 1/4 (0.150 mi.)</b>	<b>D41</b>	<b>19</b>
<b>BIOLAB INC</b>	<b>5160 5180 E AIRPORT</b>	<b>WSW 1/8 - 1/4 (0.202 mi.)</b>	<b>F52</b>	<b>22</b>

CERS TANKS: A review of the CERS TANKS list, as provided by EDR, and dated 07/15/2021 has revealed that there are 2 CERS TANKS sites within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>VERIZON WIRELESS</b>	<b>5351 E AIRPORT DR</b>	<b>WSW 0 - 1/8 (0.028 mi.)</b>	<b>B17</b>	<b>12</b>
<b>PRAXAIR INC</b>	<b>5705 E AIRPORT DR</b>	<b>E 1/8 - 1/4 (0.150 mi.)</b>	<b>D35</b>	<b>17</b>

CA FID UST: A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 4 CA FID UST sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
FIVE BROTH4R INC Facility Id: 36008281 Status: A	5235 E AIRPORT	W 1/8 - 1/4 (0.153 mi.)	C46	20
<b>MISSION LANDSCAPE CO</b> Facility Id: 36008186 Status: I	<b>5101 EAST AIRPORT DR</b>	<b>W 1/8 - 1/4 (0.240 mi.)</b>	<b>H56</b>	<b>23</b>
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>ONTARIO DISTRIBUTION</b> Facility Id: 36000401 Status: A	<b>5600 E AIRPORT DR</b>	<b>ESE 0 - 1/8 (0.120 mi.)</b>	<b>D21</b>	<b>14</b>
<b>OLD DOMINION FREIGHT</b>	<b>5705 AIRPORT DRIVE</b>	<b>E 1/8 - 1/4 (0.150 mi.)</b>	<b>D41</b>	<b>19</b>

## EXECUTIVE SUMMARY

Facility Id: 36000241  
Status: A

### Local Land Records

DEED: A review of the DEED list, as provided by EDR, and dated 08/30/2021 has revealed that there is 1 DEED site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>KOPPERS - ONTARIO</b> Status: CERTIFIED O&M - LAND USE RESTRICTIONS ONLY Envirostor ID: 36240001	<b>5101 E. AIRPORT DRIV</b>	<b>W 1/8 - 1/4 (0.240 mi.)</b>	<b>H57</b>	<b>23</b>

### Other Ascertainable Records

RCRA NonGen / NLR: A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 09/13/2021 has revealed that there are 7 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
UNION PACIFIC RAILRO EPA ID:: CAC003010005	5231 AIRPORT DR.	W 0 - 1/8 (0.105 mi.)	C18	13
DOREL INDUSTRIES-AME EPA ID:: CAL000340702	5400 SHEA CENTER DR	NE 1/8 - 1/4 (0.166 mi.)	E48	21
DB BUILDING FASTENER EPA ID:: CAL000311631	5555 GIBRALTER ST	NNE 1/8 - 1/4 (0.241 mi.)	58	24

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
COSTCO WHOLESALE LINDE IN EPA ID:: CAL000444420	5600 E AIRPORT DR. 5705 E AIRPORT DR BL	ESE 0 - 1/8 (0.120 mi.) E 1/8 - 1/4 (0.150 mi.)	D22 D32	14 16
KENAN ADVANTAGE GROU EPA ID:: CAL000375276	5705 E AIRPORT DR #	E 1/8 - 1/4 (0.150 mi.)	D38	18
OLD DOMINION FREIGHT	5705 AIRPORT DRIVE	E 1/8 - 1/4 (0.150 mi.)	D44	20

CA BOND EXP. PLAN: A review of the CA BOND EXP. PLAN list, as provided by EDR, and dated 01/01/1989 has revealed that there is 1 CA BOND EXP. PLAN site within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>KOPPERS - ONTARIO</b>	<b>5101 E. AIRPORT DRIV</b>	<b>W 1/8 - 1/4 (0.240 mi.)</b>	<b>H54</b>	<b>22</b>

## EXECUTIVE SUMMARY

Cortese: A review of the Cortese list, as provided by EDR, and dated 09/20/2021 has revealed that there are 2 Cortese sites within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>K-MART, ONTARIO DIST</b> Cleanup Status: COMPLETED - CASE CLOSED	<b>5600 AIRPORT DR</b>	<b>ESE 0 - 1/8 (0.120 mi.)</b>	<b>D20</b>	<b>13</b>
<b>PRAXAIR INC</b> Cleanup Status: COMPLETED - CASE CLOSED	<b>5705 E AIRPORT DR</b>	<b>E 1/8 - 1/4 (0.150 mi.)</b>	<b>D35</b>	<b>17</b>

HIST CORTESE: A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 3 HIST CORTESE sites within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>K-MART, ONTARIO DIST</b> Reg Id: 083602054T	<b>5600 AIRPORT DR</b>	<b>ESE 0 - 1/8 (0.120 mi.)</b>	<b>D20</b>	<b>13</b>
<b>OLD DOMINION FREIGHT</b> Reg Id: 083600421T	<b>5705 AIRPORT DRIVE</b>	<b>E 1/8 - 1/4 (0.150 mi.)</b>	<b>D41</b>	<b>19</b>
<b>FACILITY 13509-1</b> Reg Id: 2418	<b>225 WINEVILLE</b>	<b>WSW 1/4 - 1/2 (0.411 mi.)</b>	<b>66</b>	<b>26</b>

HWP: A review of the HWP list, as provided by EDR, and dated 08/13/2021 has revealed that there are 2 HWP sites within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>KOPPERS COMPANY INC</b> EPA ID: CAT000617324 Cleanup Status: CLOSED	<b>12200 AIRPORT DRIVE</b>	<b>WSW 0 - 1/8 (0.116 mi.)</b>	<b>C19</b>	<b>13</b>
<b>BIO-LAB INC</b> EPA ID: CAD008302895 Cleanup Status: CLOSED	<b>5160 E AIRPORT DR</b>	<b>WSW 1/4 - 1/2 (0.268 mi.)</b>	<b>J65</b>	<b>26</b>

San Bern. Co. Permit: A review of the San Bern. Co. Permit list, as provided by EDR, and dated 08/11/2021 has revealed that there are 11 San Bern. Co. Permit sites within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<b>DOREL INDUSTRIES-AME</b> Facility Status: ACTIVE Facility Status: INACTIVE Facility Id: FA0008372	<b>5400 SHEA CENTER DR</b>	<b>NE 1/8 - 1/4 (0.166 mi.)</b>	<b>E47</b>	<b>20</b>
<b>EMSER TILE</b> Facility Status: ACTIVE	<b>5300 SHEA CENTER DRI</b>	<b>N 1/8 - 1/4 (0.181 mi.)</b>	<b>49</b>	<b>21</b>

## EXECUTIVE SUMMARY

Facility Status: INACTIVE Facility Id: FA0015218 Facility Id: FA0007770				
<b>KOPPERS - ONTARIO</b> Facility Status: ACTIVE Facility Status: FEE EXEMPT Facility Status: INACTIVE Facility Id: FA0001804	<b>5101 E. AIRPORT DRIV</b>	<b>W 1/8 - 1/4 (0.240 mi.)</b>	<b>H57</b>	<b>23</b>
GULF SOUTH MEDICAL S Facility Status: INACTIVE Facility Id: FA0008373	5200 SHEA CENTER DR	NW 1/8 - 1/4 (0.244 mi.)	I60	24
COOPER LIGHTING Facility Status: INACTIVE Facility Id: FA0008371	5200 SHEA CENTER DR	NW 1/8 - 1/4 (0.244 mi.)	I61	24
<b>Lower Elevation</b>	<b>Address</b>	<b>Direction / Distance</b>	<b>Map ID</b>	<b>Page</b>
<b>VERIZON WIRELESS</b> Facility Status: ACTIVE Facility Status: INACTIVE Facility Id: FA0000757	<b>5351 E AIRPORT DR</b>	<b>WSW 0 - 1/8 (0.028 mi.)</b>	<b>B16</b>	<b>12</b>
<b>K MART DISTRIBUTION</b> Facility Status: ACTIVE Facility Status: INACTIVE Facility Id: FA0004197	<b>5600 E AIRPORT DR</b>	<b>ESE 0 - 1/8 (0.120 mi.)</b>	<b>D24</b>	<b>15</b>
PRAXAIR, INC Facility Status: INACTIVE Facility Id: FA0005383	5735 E AIRPORT	ESE 1/8 - 1/4 (0.150 mi.)	D29	16
<b>PRAXAIR INC</b> Facility Status: ACTIVE Facility Status: FEE EXEMPT Facility Status: INACTIVE Facility Id: FA0005384	<b>5705 E AIRPORT DR</b>	<b>E 1/8 - 1/4 (0.150 mi.)</b>	<b>D35</b>	<b>17</b>
<b>JACK B KELLEY ONTARI</b> Facility Status: INACTIVE Facility Id: FA0008166	<b>5705 E AIRPORT DR ST</b>	<b>E 1/8 - 1/4 (0.150 mi.)</b>	<b>D40</b>	<b>18</b>
<b>CHEM LAB PRODUCTS</b> Facility Status: INACTIVE Facility Id: FA0010456	<b>5180 E AIRPORT DR</b>	<b>WSW 1/8 - 1/4 (0.202 mi.)</b>	<b>F51</b>	<b>21</b>

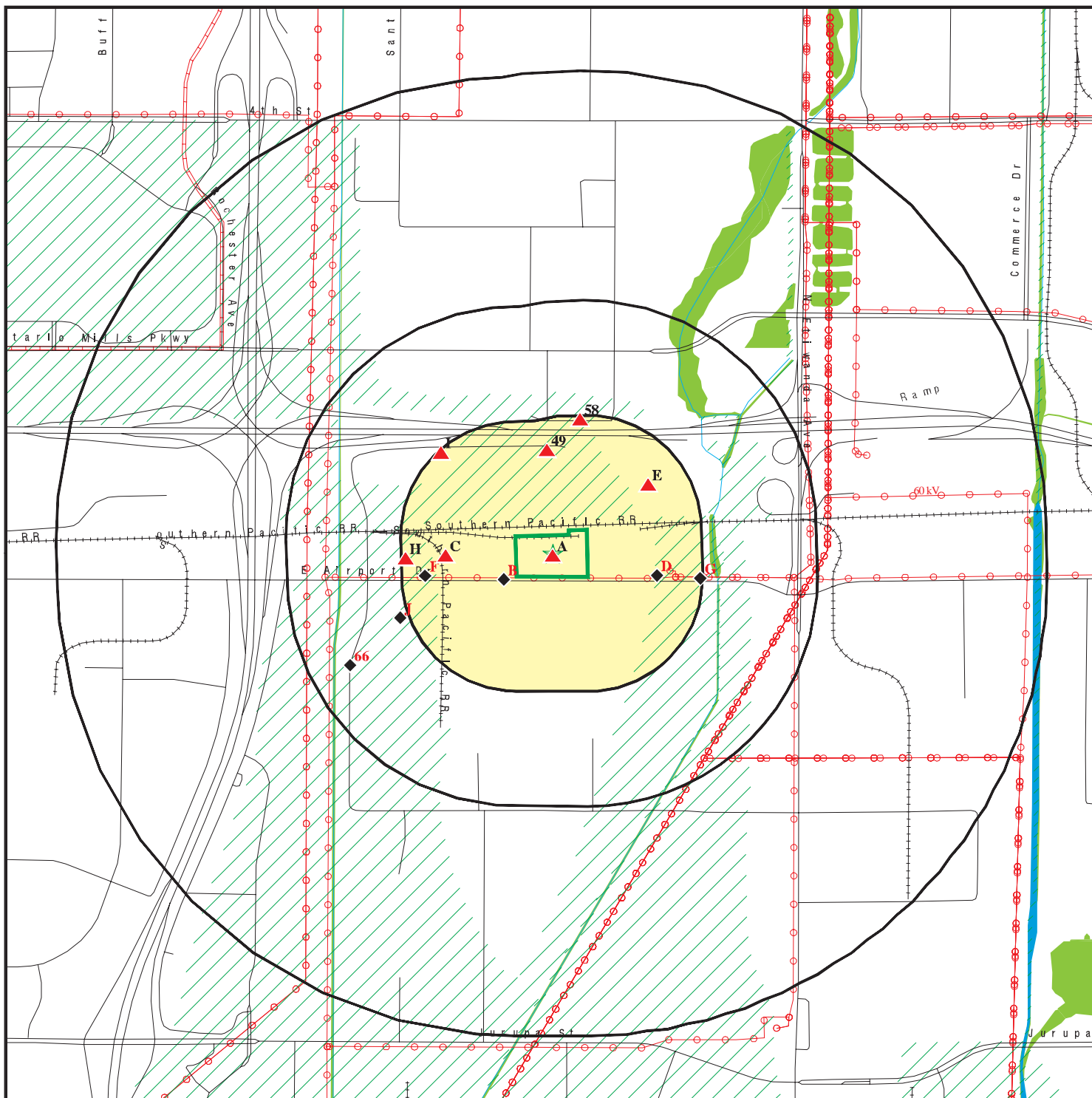
Count: 6 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
ONTARIO	S108985930	CALIF. AIR NATIONAL GUARD	N/A ONT. INTL. AIRPORT		CPS-SLIC
ONTARIO	S108985929	G E ENGINE SERVICE	N/A ONT. INTL. AIRPORT		CPS-SLIC
ONTARIO	S108543038	NORTHROP (O)	N/A ONT. INTL. AIRPORT		CPS-SLIC
ONTARIO	S108543020	LOCKHEED (O)	N/A ONT. INTL. AIRPORT		CPS-SLIC
ONTARIO	S108542946	DOUGLAS AIRCRAFT CO	N/A ONT. INTL. AIRPORT		CPS-SLIC
ONTARIO	S107540154		ONTARIO INTERNATIONAL AIRPORT	91761	CDL



# OVERVIEW MAP - 6782886.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

Power transmission lines

Pipelines

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

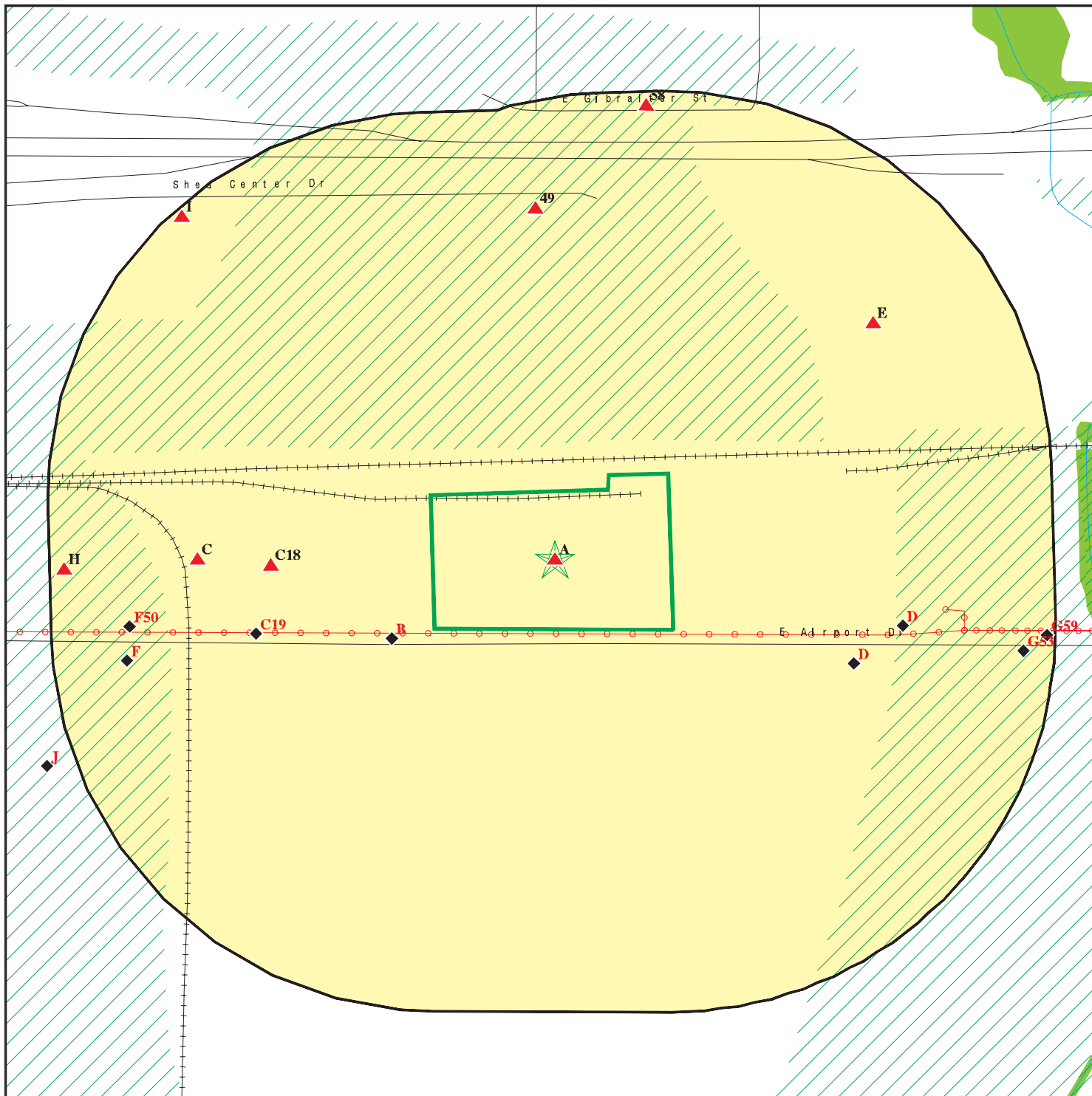
Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 5355 East Airport Drive  
 ADDRESS: 5355 East Airport Drive  
 Ontario CA 91761  
 LAT/LONG: 34.063461 / 117.533485

CLIENT: Farallon Consulting, LLC  
 CONTACT: Amanda Garcia  
 INQUIRY #: 6782886.2s  
 DATE: December 09, 2021 3:57 pm

# DETAIL MAP - 6782886.2S



Target Property

Sites at elevations higher than or equal to the target property

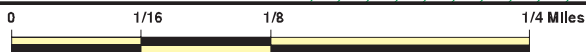
Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites



Indian Reservations BIA

Areas of Concern

Power transmission lines

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 5355 East Airport Drive  
 ADDRESS: 5355 East Airport Drive  
 Ontario CA 91761  
 LAT/LONG: 34.063461 / 117.533485

CLIENT: Farallon Consulting, LLC  
 CONTACT: Amanda Garcia  
 INQUIRY #: 6782886.2s  
 DATE: December 09, 2021 3:58 pm

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<b>STANDARD ENVIRONMENTAL RECORDS</b>								
<b><i>Lists of Federal NPL (Superfund) sites</i></b>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
<b><i>Lists of Federal Delisted NPL sites</i></b>								
Delisted NPL	1.000		0	0	0	0	NR	0
<b><i>Lists of Federal sites subject to CERCLA removals and CERCLA orders</i></b>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	1	NR	NR	1
<b><i>Lists of Federal CERCLA sites with NFRAP</i></b>								
SEMS-ARCHIVE	0.500		0	1	1	NR	NR	2
<b><i>Lists of Federal RCRA facilities undergoing Corrective Action</i></b>								
CORRACTS	1.000		0	1	1	0	NR	2
<b><i>Lists of Federal RCRA TSD facilities</i></b>								
RCRA-TSDF	0.500		0	1	1	NR	NR	2
<b><i>Lists of Federal RCRA generators</i></b>								
RCRA-LQG	0.250		1	0	NR	NR	NR	1
RCRA-SQG	0.250		1	5	NR	NR	NR	6
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
<b><i>Federal institutional controls / engineering controls registries</i></b>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
<b><i>Federal ERNS list</i></b>								
ERNS	0.001		0	NR	NR	NR	NR	0
<b><i>Lists of state- and tribal (Superfund) equivalent sites</i></b>								
RESPONSE	1.000		0	1	0	0	NR	1
<b><i>Lists of state- and tribal hazardous waste facilities</i></b>								
ENVIROSTOR	1.000		1	1	1	0	NR	3
<b><i>Lists of state and tribal landfills and solid waste disposal facilities</i></b>								
SWF/LF	0.500		0	0	0	NR	NR	0

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<b><i>Lists of state and tribal leaking storage tanks</i></b>								
LUST	0.500		1	2	0	NR	NR	3
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	2	0	NR	NR	2
<b><i>Lists of state and tribal registered storage tanks</i></b>								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250	1	0	2	NR	NR	NR	3
AST	0.250	1	3	2	NR	NR	NR	6
INDIAN UST	0.250		0	0	NR	NR	NR	0
<b><i>Lists of state and tribal voluntary cleanup sites</i></b>								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
<b><i>Lists of state and tribal brownfield sites</i></b>								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
<b><u>ADDITIONAL ENVIRONMENTAL RECORDS</u></b>								
<b><i>Local Brownfield lists</i></b>								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
<b><i>Local Lists of Landfill / Solid Waste Disposal Sites</i></b>								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	0.001	1	0	NR	NR	NR	NR	1
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
<b><i>Local Lists of Hazardous waste / Contaminated Sites</i></b>								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
CERS HAZ WASTE	0.250	1	0	2	NR	NR	NR	3
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
AQUEOUS FOAM	TP		NR	NR	NR	NR	NR	0
<b><i>Local Lists of Registered Storage Tanks</i></b>								
SWEEPS UST	0.250	1	2	4	NR	NR	NR	7
HIST UST	0.250		3	6	NR	NR	NR	9
CERS TANKS	0.250	1	1	1	NR	NR	NR	3

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CA FID UST	0.250	1	1	3	NR	NR	NR	5
<b>Local Land Records</b>								
LIENS	0.001		0	NR	NR	NR	NR	0
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	1	0	NR	NR	1
<b>Records of Emergency Release Reports</b>								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
<b>Other Ascertainable Records</b>								
RCRA NonGen / NLR	0.250	1	2	5	NR	NR	NR	8
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001	2	0	NR	NR	NR	NR	2
UXO	1.000		0	0	0	0	NR	0
ECHO	0.001	1	0	NR	NR	NR	NR	1
DOCKET HWC	0.001		0	NR	NR	NR	NR	0

## MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	1	0	0	NR	1
Cortese	0.500		1	1	0	NR	NR	2
CUPA Listings	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001	3	0	NR	NR	NR	NR	3
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001	3	0	NR	NR	NR	NR	3
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		1	1	1	NR	NR	3
HWP	1.000		1	0	1	0	NR	2
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001	1	0	NR	NR	NR	NR	1
San Bern. Co. Permit	0.250	1	2	9	NR	NR	NR	12
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
UIC GEO	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001	2	0	NR	NR	NR	NR	2
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
PROJECT	0.001		0	NR	NR	NR	NR	0
WDR	0.001		0	NR	NR	NR	NR	0
CIWQS	0.001	3	0	NR	NR	NR	NR	3
CERS	0.001	2	0	NR	NR	NR	NR	2
NON-CASE INFO	0.001		0	NR	NR	NR	NR	0
OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
SAMPLING POINT	0.001		0	NR	NR	NR	NR	0
WELL STIM PROJ	0.001		0	NR	NR	NR	NR	0
MINES MRDS	0.001		0	NR	NR	NR	NR	0
HWTS	TP	5	NR	NR	NR	NR	NR	5

### EDR HIGH RISK HISTORICAL RECORDS

#### ***EDR Exclusive Records***

EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0

### EDR RECOVERED GOVERNMENT ARCHIVES

#### ***Exclusive Recovered Govt. Archives***

RGA LF	0.001		0	NR	NR	NR	NR	0
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## MAP FINDINGS SUMMARY

<u>Database</u>	<u>Search Distance (Miles)</u>	<u>Target Property</u>	<u>&lt; 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>&gt; 1</u>	<u>Total Plotted</u>
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		31	21	52	7	0	0	111

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

MAP FINDINGS

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
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<b>A1</b>	JD HEISKELL HOLDINGS LLC	<b>HAZNET</b>	<b>S113127125</b>
Target	5355 E AIRPORT DR	<b>HWTS</b>	<b>N/A</b>
Property	ONTARIO, CA 91761		

Actual: [Click here for full text details](#)  
983 ft.

**HAZNET**  
GEPaid CAL000271944

<b>A2</b>	J D HEISKELL HOLDINGS LLC	<b>CA FID UST</b>	<b>S101591067</b>
Target	5355 EAST AIRPORT DRIVE	<b>EMI</b>	<b>N/A</b>
Property	ONTARIO, CA 91761	<b>CIWQS</b>	
		<b>CERS</b>	
		<b>HWTS</b>	

Actual: [Click here for full text details](#)  
983 ft.

**CA FID UST**  
Facility Id 36001144  
Status A

**EMI**  
Facility Id 52930  
Facility Id 134997  
Facility Id 131781

<b>A3</b>	J D HEISKELL HOLDINGS CO.	<b>CIWQS</b>	<b>S121646701</b>
Target	5355 E. AIRPORT DR.		<b>N/A</b>
Property	ONTARIO, CA 91761		

Actual: [Click here for full text details](#)  
983 ft.

<b>A4</b>	GEORGE VERHOEVEN GRAIN INC	<b>FINDS</b>	<b>1023280484</b>
Target	5355 E AIRPORT DR	<b>ECHO</b>	<b>N/A</b>
Property	ONTARIO, CA 91761		

Actual: [Click here for full text details](#)  
983 ft.

**FINDS**  
Registry ID: 110065710724

**ECHO**  
Registry ID 110065710724



MAP FINDINGS

Map ID			EDR ID Number
Direction			EPA ID Number
Distance			
Elevation	Site	Database(s)	

<b>A5</b>	<b>COAST GRAIN INC</b>	<b>UST</b>	<b>U003784955</b>
<b>Target</b>	<b>5355 E AIRPORT DR</b>	<b>AST</b>	<b>N/A</b>
<b>Property</b>	<b>ONTARIO, CA 91761</b>	<b>CERS HAZ WASTE</b>	

**Actual:**  
983 ft.

[Click here for full text details](#)

**SWEEPS UST**  
**CERS TANKS**  
**NPDES**  
**San Bern. Co. Permit**  
**WDS**  
**CERS**  
**HWTS**

**UST**  
Facility Id 87013578

**SWEEPS UST**  
Status A  
Tank Status A  
Comp Number 13578

**NPDES**  
Facility Status Active

**San Bern. Co. Permit**  
Facility Id FA0013823  
Facility Id FA0013111  
Facility Id FA0002405  
Facility Status ACTIVE  
Facility Status INACTIVE

**WDS**  
Facility Id 8 36I000195  
Facility Status Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.

<b>A6</b>	<b>J D HEISKELL HOLDINGS CO</b>	<b>WDS</b>	<b>S106571515</b>
<b>Target</b>	<b>5355 E AIRPORT DR</b>		<b>N/A</b>
<b>Property</b>	<b>ONTARIO, CA 91761</b>		

**Actual:**  
983 ft.

[Click here for full text details](#)

**WDS**  
Facility Id 8 36I018142  
Facility Status Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.

<b>A7</b>	<b>COAST GRAIN COMPANY</b>	<b>EMI</b>	<b>S106828893</b>
<b>Target</b>	<b>5355 E. AIRPORT DR.</b>		<b>N/A</b>
<b>Property</b>	<b>ONTARIO, CA. 91761, CA 91761</b>		

**Actual:**  
983 ft.

[Click here for full text details](#)

**EMI**  
Facility Id 52930

MAP FINDINGS

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
A8 Target Property	<b>JOHN POWELL</b> 5355 E AIRPORT DR ONTARIO, CA 91761	<b>HAZNET HWTS</b>	<b>S112957942 N/A</b>
Actual: 983 ft.	<a href="#">Click here for full text details</a> <b>HAZNET</b> GEPAID CAC002610962		
A9 Target Property	<b>G &amp; R TRANSPORTATION</b> 5355 E AIRPORT DR ONTARIO, CA	<b>HAULERS</b>	<b>S127792075 N/A</b>
Actual: 983 ft.	<a href="#">Click here for full text details</a> <b>HAULERS</b> Facility ID 1630911		
A10 Target Property	<b>GEORGE VERHOEVEN GRAIN INC</b> 5355 E AIRPORT DR ONTARIO, CA 91761	<b>RCRA NonGen / NLR</b>	<b>1024826518 CAL000354338</b>
Actual: 983 ft.	<a href="#">Click here for full text details</a> <b>RCRA NonGen / NLR</b> EPA Id CAL000354338		
A11 Target Property	<b>GEORGE VERHOEVEN GRAIN, INC.</b> 5355 E AIRPORT DR ONTARIO, CA 91761	<b>EMI</b>	<b>S120712944 N/A</b>
Actual: 983 ft.	<a href="#">Click here for full text details</a> <b>EMI</b> Facility Id 163123		
A12 Target Property	<b>GEORGE VERHOEVEN GRAIN, INC.</b> 5355 EAST AIRPORT DRIVE ONTARIO, CA 91761	<b>FINDS</b>	<b>1004442816 N/A</b>
Actual: 983 ft.	<a href="#">Click here for full text details</a> <b>FINDS</b> Registry ID: 110010471239		

MAP FINDINGS

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
A13 Target Property	GEORGE VERHOEVEN GRAIN INC 5355 E AIRPORT DR 17633 BARBER AVE ONTARIO, CA 91761	CIWQS	S120029326 N/A
Actual: 983 ft.	<a href="#">Click here for full text details</a>		
A14 Target Property	COAST GRAIN INC 5355 E AIRPORT DR ONTARIO, CA 91761	HAZNET HWTS	S112926484 N/A
Actual: 983 ft.	<a href="#">Click here for full text details</a>		
B15 WSW < 1/8 0.028 mi. 149 ft.	VERIZON WIRELESS-INLAND MTSO 5351 E. AIRPORT DR ONTARIO, CA	AST	A100346251 N/A
Relative: Lower	<a href="#">Click here for full text details</a>		
B16 WSW < 1/8 0.028 mi. 149 ft.	VERIZON WIRELESS 5351 E AIRPORT DR ONTARIO, CA 91761	HAZNET San Bern. Co. Permit HWTS	S113786885 N/A
Relative: Lower	<a href="#">Click here for full text details</a>		
	<b>HAZNET</b> GEPAID CAC002702556  <b>San Bern. Co. Permit</b> Facility Id FA0000757 Facility Status ACTIVE Facility Status INACTIVE		
B17 WSW < 1/8 0.028 mi. 149 ft.	VERIZON WIRELESS 5351 E AIRPORT DR ONTARIO, CA 91761	CERS TANKS HAZNET CERS HWTS	S113459424 N/A
Relative: Lower	<a href="#">Click here for full text details</a>		
	<b>HAZNET</b> GEPAID CAC002652109		

MAP FINDINGS

Map ID			EDR ID Number
Direction			EPA ID Number
Distance			
Elevation	Site	Database(s)	

<b>C18</b> West < 1/8 0.105 mi. 557 ft.	<b>UNION PACIFIC RAILROAD</b> 5231 AIRPORT DR. ONTARIO, CA 91761  <a href="#">Click here for full text details</a>	RCRA NonGen / NLR	1025830449 CAC003010005
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Relative:  
Higher  
 RCRA NonGen / NLR  
 EPA Id CAC003010005

<b>C19</b> WSW < 1/8 0.116 mi. 614 ft.	<b>KOPPERS COMPANY INC</b> 12200 AIRPORT DRIVE ONTARIO, CA 91761  <a href="#">Click here for full text details</a>	ENVIROSTOR HWP CERS	S109467307 N/A
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Relative:  
Lower  
 ENVIROSTOR  
 Facility Id 80001796  
 Status Refer: RWQCB

**HWP**  
 Cleanup Status CLOSED  
 EPA ID CAT000617324

<b>D20</b> ESE < 1/8 0.120 mi. 635 ft.	<b>K-MART, ONTARIO DIST. CENTER</b> 5600 AIRPORT DR ONTARIO, CA 91761  <a href="#">Click here for full text details</a>	LUST SWEEPS UST HIST UST Cortese HIST CORTESE CERS	1000369731 N/A
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Relative:  
Lower  
 LUST  
 Global ID T0607100254  
 Facility Status Case Closed  
 Status Completed - Case Closed  
 Global Id T0607100254

**SWEEPS UST**  
 Status A  
 Comp Number 65657

**HIST UST**  
 Facility Id 00000065657

**Cortese**  
 Cleanup Status COMPLETED - CASE CLOSED

**HIST CORTESE**  
 Reg Id 083602054T

MAP FINDINGS

Map ID			EDR ID Number
Direction			EPA ID Number
Distance			
Elevation	Site	Database(s)	

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**D21**      **ONTARIO DISTRIBUTION CENTER**  
**ESE**      **5600 E AIRPORT DR**  
**< 1/8**     **ONTARIO, CA 91761**  
**0.120 mi.**  
**635 ft.**

Relative:  
Lower

[Click here for full text details](#)

**SWEEPS UST**    **S106027605**  
**HIST UST**        **N/A**  
**CA FID UST**  
**EMI**  
**NPDES**  
**WDS**  
**CIWQS**

**SWEEPS UST**  
Status A  
Tank Status A  
Comp Number 48475

**CA FID UST**  
Facility Id 36000401  
Status A

**EMI**  
Facility Id 39898

**NPDES**  
Facility Status Terminated

**WDS**  
Facility Id 8 361018846  
Facility Status Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.

**D22**      **COSTCO WHOLESALE**  
**ESE**      **5600 E AIRPORT DR.**  
**< 1/8**     **ONTARIO, CA 91761**  
**0.120 mi.**  
**635 ft.**

Relative:  
Lower

[Click here for full text details](#)

**RCRA NonGen / NLR**    **1026824069**  
**CAC003137088**

**D23**      **K MART DISTRIBUTION CENTER**  
**ESE**      **5600 E. AIRPORT DR**  
**< 1/8**     **ONTARIO, CA**  
**0.120 mi.**  
**635 ft.**

Relative:  
Lower

[Click here for full text details](#)

**AST**    **A100345870**  
**N/A**

MAP FINDINGS

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
D24 ESE < 1/8 0.120 mi. 635 ft.	<b>K MART DISTRIBUTION CENTER ONTARIO 8287</b> 5600 E AIRPORT DR ONTARIO, CA 91761  <a href="#">Click here for full text details</a>	HAZNET NPDES San Bern. Co. Permit CIWQS HWTS	S113013171 N/A
Relative: Lower	<b>HAZNET</b> GEPaid CAD982038176  <b>NPDES</b> Facility Status Active  <b>San Bern. Co. Permit</b> Facility Id FA0004197 Facility Status ACTIVE Facility Status INACTIVE		
D25 ESE < 1/8 0.120 mi. 635 ft.	<b>ONTARIO DISTRIBUTION CENTER</b> 5600 AIRPORT DR ONTARIO, CA 91761  <a href="#">Click here for full text details</a>	HIST UST	U001570048 N/A
Relative: Lower	<b>HIST UST</b> Facility Id 00000048475		
D26 ESE < 1/8 0.120 mi. 635 ft.	<b>KMART #8287</b> 5600 E AIRPORT DR ONTARIO, CA 91761  <a href="#">Click here for full text details</a>	AST	A100421493 N/A
Relative: Lower			
D27 ESE < 1/8 0.120 mi. 635 ft.	<b>COSTCO LOGISTICS - ONTARIO II DDC #4076</b> 5600 EAST AIRPORT DR ONTARIO, CA 91761  <a href="#">Click here for full text details</a>	RCRA-SQG	1026830135 CAR000326025
Relative: Lower			

MAP FINDINGS

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
D28 ESE < 1/8 0.120 mi. 635 ft.	KMART #8287 5600 EAST AIRPORT DR ONTARIO, CA 91761  <a href="#">Click here for full text details</a>	RCRA-LQG	1024783585 CAD982038176
Relative: Lower	RCRA-LQG EPA Id CAD982038176		
D29 ESE 1/8-1/4 0.150 mi. 793 ft.	PRAXAIR, INC 5735 E AIRPORT ONTARIO, CA 91761  <a href="#">Click here for full text details</a>	San Bern. Co. Permit	S106911033 N/A
Relative: Lower	San Bern. Co. Permit Facility Id FA0005383 Facility Status INACTIVE		
D30 ESE 1/8-1/4 0.150 mi. 793 ft.	UNION CARBIDE CORP LINDE DIV 5735 AIRPORT DR ONTARIO, CA 91761  <a href="#">Click here for full text details</a>	HIST UST EMI	U001570100 N/A
Relative: Lower	HIST UST Facility Id 00000029766  EMI Facility Id 23396		
D31 ESE 1/8-1/4 0.150 mi. 793 ft.	UNION CARBIDE CORP LINDE DIV 5735 E AIRPORT DRIVE ONTARIO, CA 91761  <a href="#">Click here for full text details</a>	HIST UST	S118416391 N/A
Relative: Lower			
D32 East 1/8-1/4 0.150 mi. 793 ft.	LINDE IN 5705 E AIRPORT DR BLDG A ONTARIO, CA 91761  <a href="#">Click here for full text details</a>	RCRA NonGen / NLR	1025871308 CAL000444420
Relative: Lower	RCRA NonGen / NLR EPA Id CAL000444420		

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

**D33**  
East  
1/8-1/4  
0.150 mi.  
793 ft.

**UNION CARBIDE CORP LINDE DIV**  
5705 E AIRPORT DR  
ONTARIO, CA 91761

**SWEEPS UST**    **S103982382**  
N/A

[Click here for full text details](#)

Relative:  
Lower

**SWEEPS UST**  
Status A  
Tank Status A  
Comp Number 29766

**D34**  
East  
1/8-1/4  
0.150 mi.  
793 ft.

**PRAXAIR, INC**  
5705 E AIRPORT DR  
ONTARIO, CA 91761

**UST**    **U004350441**  
N/A

[Click here for full text details](#)

Relative:  
Lower

**UST**  
Facility Id 86009824

**D35**  
East  
1/8-1/4  
0.150 mi.  
793 ft.

**PRAXAIR INC**  
5705 E AIRPORT DR  
ONTARIO, CA 91761

**RCRA-SQG**    **1007264035**  
**LUST**    **91761NNCRB5705E**  
**CERS HAZ WASTE**  
**CERS TANKS**  
**TRIS**  
Cortese  
**NPDES**  
San Bern. Co. Permit  
**CIWQS**  
**CERS**  
**HWTS**

[Click here for full text details](#)

Relative:  
Lower

**RCRA-SQG**  
EPA Id CAR000151886

**LUST**  
Status Completed - Case Closed  
Global Id T0607100045

**TRIS**  
TRIS ID 91761NNCRB5705E

**Cortese**  
Cleanup Status COMPLETED - CASE CLOSED

**NPDES**  
Facility Status Active

**San Bern. Co. Permit**  
Facility Id FA0005384



MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

**PRAXAIR INC (Continued)**

1007264035

Facility Status ACTIVE  
 Facility Status FEE EXEMPT  
 Facility Status INACTIVE

D36  
 East  
 1/8-1/4  
 0.150 mi.  
 793 ft.

**PRAXAIR, INC - 986**  
 5705 E AIRPORT DR  
 ONTARIO, CA 91761

AST A100423548  
 N/A

Relative:  
 Lower

[Click here for full text details](#)

D37  
 East  
 1/8-1/4  
 0.150 mi.  
 793 ft.

**LINDE INC - 986**  
 5705 E AIRPORT DR  
 ONTARIO, CA 91761

UST U004352933  
 N/A

Relative:  
 Lower

[Click here for full text details](#)

UST  
 Facility Id FA0005384

D38  
 East  
 1/8-1/4  
 0.150 mi.  
 793 ft.

**KENAN ADVANTAGE GROUP INC DBA JACK B KELLEY/ONTARI**  
 5705 E AIRPORT DR # B  
 ONTARIO, CA 91761

RCRA NonGen / NLR 1024834560  
 CAL000375276

Relative:  
 Lower

[Click here for full text details](#)

RCRA NonGen / NLR  
 EPA Id CAL000375276

D39  
 East  
 1/8-1/4  
 0.150 mi.  
 793 ft.

**PRAXAIR, INC.**  
 5705 E. AIRPORT DR.  
 ONTARIO, CA 91761

AST S106837625  
 EMI N/A

Relative:  
 Lower

[Click here for full text details](#)

EMI  
 Facility Id 42630

D40  
 East  
 1/8-1/4  
 0.150 mi.  
 793 ft.

**JACK B KELLEY ONTARIO TERMINAL**  
 5705 E AIRPORT DR STE B  
 ONTARIO, CA 91761

San Bern. Co. Permit S106800889  
 WDS N/A  
 CIWQS

Relative:  
 Lower

[Click here for full text details](#)

San Bern. Co. Permit  
 Facility Id FA0008166  
 Facility Status INACTIVE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**JACK B KELLEY ONTARIO TERMINAL (Continued)**

**S106800889**

**WDS**

Facility Id 8 361018978

Facility Status Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.

**D41**  
East  
1/8-1/4  
0.150 mi.  
793 ft.

**OLD DOMINION FREIGHT LINE**  
5705 AIRPORT DRIVE  
ONTARIO, CA 91761

[Click here for full text details](#)

Relative:  
Lower

**LUST** U001574912  
**SWEEPS UST** N/A  
**HIST UST**  
**CA FID UST**  
**EMI**  
**HIST CORTESE**  
**HWTS**

**LUST**

Global ID T0607100045

Facility Status Case Closed

**SWEEPS UST**

Status A

Tank Status A

Comp Number 20414

**HIST UST**

Facility Id 00000020414

**CA FID UST**

Facility Id 36000241

Status A

**EMI**

Facility Id 42630

**HIST CORTESE**

Reg Id 083600421T

**D42**  
East  
1/8-1/4  
0.150 mi.  
793 ft.

**UNION CARBIDE**  
5705 AIRPORT DRIVE E  
ONTARIO, CA

[Click here for full text details](#)

Relative:  
Lower

**CPS-SLIC** S106487015  
**CERS** N/A

**CPS-SLIC**

Facility Status Completed - Case Closed

Global Id SLT8R2614112

[Click here to access the California GeoTracker records for this facility](#)

MAP FINDINGS

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
D43 East 1/8-1/4 0.150 mi. 793 ft.	PRAXAIR, INC. 5705 EAST AIRPORT DR. ONTARIO, CA 91761	RCRA-SQG	1010313115 CAL000139839
Relative: Lower	<a href="#">Click here for full text details</a> RCRA-SQG EPA Id CAL000139839		
D44 East 1/8-1/4 0.150 mi. 793 ft.	OLD DOMINION FREIGHT LINE 5705 AIRPORT DRIVE ONTARIO, CA 91761	RCRA NonGen / NLR	1026813977 CAC003126572
Relative: Lower	<a href="#">Click here for full text details</a>		
C45 West 1/8-1/4 0.153 mi. 809 ft.	FIVE BROTHERS INC 5235 E AIRPORT DR ONTARIO, CA 91761	SWEEPS UST	S106926251 N/A
Relative: Higher	<a href="#">Click here for full text details</a> SWEEPS UST Comp Number 550		
C46 West 1/8-1/4 0.153 mi. 809 ft.	FIVE BROTH4R INC 5235 E AIRPORT ONTARIO, CA 91761	CA FID UST	S101591507 N/A
Relative: Higher	<a href="#">Click here for full text details</a> CA FID UST Facility Id 36008281 Status A		
E47 NE 1/8-1/4 0.166 mi. 879 ft.	DOREL INDUSTRIES-AMERIWOOD, INC 5400 SHEA CENTER DR ONTARIO, CA 91761	CERS HAZ WASTE HAZNET San Bern. Co. Permit CIWQS CERS HWTS	S113798146 N/A
Relative: Higher	<a href="#">Click here for full text details</a> HAZNET GEPAID CAL000340702  San Bern. Co. Permit Facility Id FA0008372 Facility Status ACTIVE Facility Status INACTIVE		

MAP FINDINGS

Map ID Direction Distance Elevation	Site	Database(s)	EDR ID Number EPA ID Number
E48 NE 1/8-1/4 0.166 mi. 879 ft.	DOREL INDUSTRIES-AMERIWOOD, INC 5400 SHEA CENTER DR ONTARIO, CA 91761  <a href="#">Click here for full text details</a>	RCRA NonGen / NLR	1024822498 CAL000340702
Relative: Higher	RCRA NonGen / NLR EPA Id CAL000340702		
49 North 1/8-1/4 0.181 mi. 958 ft.	EMSER TILE 5300 SHEA CENTER DRIVE ONTARIO, CA 91761  <a href="#">Click here for full text details</a>	San Bern. Co. Permit NPDES CERS	S105857404 N/A
Relative: Higher	San Bern. Co. Permit Facility Id FA0015218 Facility Id FA0007770 Facility Status ACTIVE Facility Status INACTIVE		
F50 West 1/8-1/4 0.199 mi. 1049 ft.	KOPPERS COMPANY INC 12200 AIRPORT DRIVE ONTARIO, CA 91761  <a href="#">Click here for full text details</a>	SEMS-ARCHIVE CORRACTS RCRA-TSDF RCRA-SQG	1000346589 CAT000617324
Relative: Lower	SEMS-ARCHIVE Site ID 0900327 EPA Id CAT000617324  CORRACTS EPA ID: CAT000617324  RCRA-TSDF EPA Id CAT000617324  RCRA-SQG EPA Id CAT000617324		
F51 WSW 1/8-1/4 0.202 mi. 1065 ft.	CHEM LAB PRODUCTS 5180 E AIRPORT DR ONTARIO, CA 91761  <a href="#">Click here for full text details</a>	San Bern. Co. Permit CHMIRS	S109039732 N/A
Relative: Lower	CHMIRS OES Incident Number 6-3168  San Bern. Co. Permit		

MAP FINDINGS

Map ID									
Direction									
Distance									
Elevation	Site			Database(s)				EDR ID Number	
								EPA ID Number	

**CHEM LAB PRODUCTS (Continued)**

S109039732

Facility Id FA0010456  
Facility Status INACTIVE

F52  
WSW  
1/8-1/4  
0.202 mi.  
1065 ft.

**BIOLAB INC**  
5160 5180 E AIRPORT DRIVE  
ONTARIO, CA 91761

HIST UST S117846383  
NPDES N/A  
CIWQS  
CERS

[Click here for full text details](#)

Relative:  
Lower

**NPDES**  
Facility Status Active

G53  
ESE  
1/8-1/4  
0.229 mi.  
1211 ft.

**UNION CARBIDE CORP LINDE DIV**  
5702 E AIRPORT DR  
ONTARIO, CA 91761

RCRA-SQG 1000336428  
CPS-SLIC CAD981634728  
FINDS  
ECHO  
HAZNET  
HWTS

[Click here for full text details](#)

Relative:  
Lower

**RCRA-SQG**  
EPA Id CAD981634728

**FINDS**  
Registry ID: 110002732277

**ECHO**  
Registry ID 110002732277

**HAZNET**  
GEPaid CAD981634728

H54  
West  
1/8-1/4  
0.240 mi.  
1269 ft.

**KOPPERS - ONTARIO**  
5101 E. AIRPORT DRIVE  
ONTARIO, CA 91764

CA BOND EXP. PLAN S100833524  
CERS N/A

[Click here for full text details](#)

Relative:  
Higher

H55  
West  
1/8-1/4  
0.240 mi.  
1269 ft.

**KOPPERS COMPANY, INC. ONTARIO**  
5101 AIRPORT DR  
ONTARIO, CA 91764

HIST UST U001570240  
N/A

[Click here for full text details](#)

Relative:  
Higher

**HIST UST**  
Facility Id 00000003276

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**KOPPERS COMPANY, INC. ONTARIO (Continued)**

**U001570240**

Facility Id 00000042153

**H56**  
West  
1/8-1/4  
0.240 mi.  
1269 ft.

**MISSION LANDSCAPE COMPANIES**  
5101 EAST AIRPORT DRIVE  
ONTARIO, CA 91761

**SWEEPS UST**  
**HIST UST**  
**CA FID UST**  
**HAZNET**  
**HWTS**

**S101619025**  
**N/A**

[Click here for full text details](#)

Relative:  
Higher

**SWEEPS UST**  
Comp Number 3276

**CA FID UST**  
Facility Id 36008186  
Status I

**HAZNET**  
GEPaid CAC002902869

**H57**  
West  
1/8-1/4  
0.240 mi.  
1269 ft.

**KOPPERS - ONTARIO**  
5101 E. AIRPORT DRIVE  
ONTARIO, CA 91764

**RESPONSE**  
**ENVIROSTOR**  
**DEED**  
San Bern. Co. Permit  
**CERS**

**S105159229**  
**N/A**

[Click here for full text details](#)

Relative:  
Higher

**RESPONSE**  
Status Certified O&M - Land Use Restrictions Only  
Facility Id 36240001

**ENVIROSTOR**  
Facility Id 36240001  
Status Certified O&M - Land Use Restrictions Only

**DEED**  
Envirostor ID 36240001  
Status CERTIFIED O&M - LAND USE RESTRICTIONS ONLY

**San Bern. Co. Permit**  
Facility Id FA0001804  
Facility Status ACTIVE  
Facility Status FEE EXEMPT  
Facility Status INACTIVE

MAP FINDINGS

Map ID  
 Direction  
 Distance  
 Elevation

Site

Database(s)

EDR ID Number  
 EPA ID Number

58 DB BUILDING FASTENERS INC RCRA NonGen / NLR 1024815036  
 NNE 5555 GIBRALTER ST CAL000311631  
 1/8-1/4 ONTARIO, CA 91764  
 0.241 mi.  
 1275 ft.

[Click here for full text details](#)

Relative:  
 Higher RCRA NonGen / NLR  
 EPA Id CAL000311631

G59 UNION CARHIDE INDUSTRIAL GASES INC RCRA-SQG 1000336413  
 East 12866 AIRPORT DRIVE FINDS CAD008392920  
 1/8-1/4 ONTARIO, CA 91761 ECHO  
 0.244 mi.  
 1290 ft.

[Click here for full text details](#)

Relative:  
 Lower RCRA-SQG  
 EPA Id CAD008392920

**FINDS**  
 Registry ID: 110002634043

**ECHO**  
 Registry ID 110002634043

I60 GULF SOUTH MEDICAL SUPPLY San Bern. Co. Permit S108754967  
 NW 5200 SHEA CENTER DR STE B N/A  
 1/8-1/4 ONTARIO, CA 91761  
 0.244 mi.  
 1290 ft.

[Click here for full text details](#)

Relative:  
 Higher San Bern. Co. Permit  
 Facility Id FA0008373  
 Facility Status INACTIVE

I61 COOPER LIGHTING San Bern. Co. Permit S106230178  
 NW 5200 SHEA CENTER DR STE A N/A  
 1/8-1/4 ONTARIO, CA 91761  
 0.244 mi.  
 1290 ft.

[Click here for full text details](#)

Relative:  
 Higher San Bern. Co. Permit  
 Facility Id FA0008371  
 Facility Status INACTIVE

MAP FINDINGS

Map ID Direction Distance Elevation		Database(s)	EDR ID Number EPA ID Number
	Site		

<b>J62</b> <b>WSW</b> <b>1/4-1/2</b> <b>0.268 mi.</b> <b>1417 ft.</b>	<b>CHEM LAB PRODUCTS</b> <b>5160 EAST AIRPOT DRIVE</b> <b>ONTARIO, CA</b>	<b>SEMS</b>	<b>1009805707</b> <b>CAN000908439</b>
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[Click here for full text details](#)

**Relative:**  
**Lower**

**SEMS**  
 Site ID 0908439  
 EPA Id CAN000908439

<b>J63</b> <b>WSW</b> <b>1/4-1/2</b> <b>0.268 mi.</b> <b>1417 ft.</b>	<b>BIO LAB INC</b> <b>5160 E AIRPORT DR</b> <b>ONTARIO, CA 91761</b>	<b>SEMS-ARCHIVE</b> <b>CORRACTS</b> <b>RCRA-TSDF</b> <b>RCRA-SQG</b> <b>2020 COR ACTION</b> <b>SSTS</b>	<b>1000294229</b> <b>CAD008302895</b>
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[Click here for full text details](#)

**Relative:**  
**Lower**

**SEMS-ARCHIVE**  
 Site ID 0900364  
 EPA Id CAD008302895

**CORRACTS**  
 EPA ID: CAD008302895

**RCRA-TSDF**  
 EPA Id CAD008302895

**RCRA-SQG**  
 EPA Id CAD008302895

**2020 COR ACTION**  
 EPA ID: CAD008302895

**SSTS**  
 Registration Number: 007616-CA-001  
 Registration Number: 007616CA001

<b>J64</b> <b>WSW</b> <b>1/4-1/2</b> <b>0.268 mi.</b> <b>1417 ft.</b>	<b>CHEM LAB PRODUCTS INC</b> <b>5160 AIRPORT DR</b> <b>ONTARIO, CA 91761</b>	<b>ENVIROSTOR</b> <b>HIST UST</b> <b>CHMIRS</b>	<b>U001569956</b> <b>N/A</b>
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[Click here for full text details](#)

**Relative:**  
**Lower**

**ENVIROSTOR**  
 Facility Id 36280136  
 Facility Id 80001548  
 Status Refer: RCRA  
 Status No Further Action

**HIST UST**



MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

**CHEM LAB PRODUCTS INC (Continued)**

**U001569956**

Facility Id 00000016010

**CHMIRS**

OES Incident Number 10-4387

**J65**  
**WSW**  
**1/4-1/2**  
**0.268 mi.**  
**1417 ft.**

**BIO-LAB INC**  
**5160 E AIRPORT DR**  
**ONTARIO, CA 91761**

**CHMIRS S107450350**  
**HWP N/A**

[Click here for full text details](#)

Relative:  
Lower

**CHMIRS**

OES Incident Number 4-2601

**HWP**

Cleanup Status CLOSED  
EPA ID CAD008302895

**66**  
**WSW**  
**1/4-1/2**  
**0.411 mi.**  
**2168 ft.**

**FACILITY 13509-1**  
**225 WINEVILLE**  
**ONTARIO, CA**

**HIST CORTESE S105025360**  
**N/A**

[Click here for full text details](#)

Relative:  
Lower

**HIST CORTESE**

Reg Id 2418

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
CA	AQUEOUS FOAM	Former Fire Training Facility Assessments Listing	State Water Resources Control Board	12/01/2019	08/19/2021	10/28/2021
CA	AST	Aboveground Petroleum Storage Tank Facilities	California Environmental Protection Agency	07/06/2016	07/12/2016	09/19/2016
CA	BROWNFIELDS	Considered Brownfields Sites Listing	State Water Resources Control Board	09/20/2021	09/21/2021	12/08/2021
CA	CA BOND EXP. PLAN	Bond Expenditure Plan	Department of Health Services	01/01/1989	07/27/1994	08/02/1994
CA	CA FID UST	Facility Inventory Database	California Environmental Protection Agency	10/31/1994	09/05/1995	09/29/1995
CA	CDL	Clandestine Drug Labs	Department of Toxic Substances Control	12/31/2019	01/20/2021	04/08/2021
CA	CERS	CalEPA Regulated Site Portal Data	California Environmental Protection Agency	07/15/2021	07/15/2021	10/06/2021
CA	CERS HAZ WASTE	CERS HAZ WASTE	CalEPA	07/15/2021	07/15/2021	10/06/2021
CA	CERS TANKS	California Environmental Reporting System (CERS) Tanks	California Environmental Protection Agency	07/15/2021	07/15/2021	10/06/2021
CA	CHMIRS	California Hazardous Material Incident Report System	Office of Emergency Services	06/30/2021	07/15/2021	10/06/2021
CA	CIWQS	California Integrated Water Quality System	State Water Resources Control Board	08/30/2021	08/31/2021	11/19/2021
CA	CORTESE	"Cortese" Hazardous Waste & Substances Sites List	CAL EPA/Office of Emergency Information	09/20/2021	09/21/2021	12/08/2021
CA	CPS-SLIC	Statewide SLIC Cases (GEOTRACKER)	State Water Resources Control Board	09/07/2021	09/07/2021	11/29/2021
CA	CUPA LIVERMORE-PLEASANTON	CUPA Facility Listing	Livermore-Pleasanton Fire Department	05/01/2019	05/14/2019	07/17/2019
CA	DEED	Deed Restriction Listing	DTSC and SWRCB	08/30/2021	08/31/2021	11/19/2021
CA	DRYCLEAN AVAQMD	Antelope Valley Air Quality Management District Drycleaner L	Antelope Valley Air Quality Management Distri	08/24/2021	08/25/2021	11/17/2021
CA	DRYCLEAN SOUTH COAST	South Coast Air Quality Management District Drycleaner Listi	South Coast Air Quality Management District	08/18/2021	08/23/2021	11/12/2021
CA	DRYCLEANERS	Cleaner Facilities	Department of Toxic Substance Control	08/27/2021	09/01/2021	11/19/2021
CA	EMI	Emissions Inventory Data	California Air Resources Board	12/31/2019	06/10/2021	08/27/2021
CA	ENF	Enforcement Action Listing	State Water Resources Control Board	04/16/2021	04/20/2021	07/07/2021
CA	ENVIROSTOR	EnviroStor Database	Department of Toxic Substances Control	07/22/2021	07/22/2021	10/08/2021
CA	Financial Assurance 1	Financial Assurance Information Listing	Department of Toxic Substances Control	04/14/2021	04/15/2021	07/06/2021
CA	Financial Assurance 2	Financial Assurance Information Listing	California Integrated Waste Management Board	08/13/2021	08/13/2021	11/05/2021
CA	HAULERS	Registered Waste Tire Haulers Listing	Integrated Waste Management Board	09/14/2021	11/11/2021	11/23/2021
CA	HAZNET	Facility and Manifest Data	California Environmental Protection Agency	12/31/2019	04/15/2020	07/02/2020
CA	HIST CAL-SITES	Calsites Database	Department of Toxic Substance Control	08/08/2005	08/03/2006	08/24/2006
CA	HIST CORTESE	Hazardous Waste & Substance Site List	Department of Toxic Substances Control	04/01/2001	01/22/2009	04/08/2009
CA	HIST UST	Hazardous Substance Storage Container Database	State Water Resources Control Board	10/15/1990	01/25/1991	02/12/1991
CA	HWP	EnviroStor Permitted Facilities Listing	Department of Toxic Substances Control	08/13/2021	08/13/2021	11/08/2021
CA	HWT	Registered Hazardous Waste Transporter Database	Department of Toxic Substances Control	07/01/2021	07/01/2021	09/24/2021
CA	HWTS	Hazardous Waste Tracking System	Department of Toxic Substances Control	07/13/2021	07/14/2021	10/06/2021
CA	ICE	ICE	Department of Toxic Substances Control	08/13/2021	08/13/2021	11/08/2021
CA	LDS	Land Disposal Sites Listing (GEOTRACKER)	State Water Quality Control Board	09/07/2021	09/07/2021	11/29/2021
CA	LIENS	Environmental Liens Listing	Department of Toxic Substances Control	08/25/2021	09/03/2021	11/22/2021
CA	LUST	Leaking Underground Fuel Tank Report (GEOTRACKER)	State Water Resources Control Board	09/07/2021	09/07/2021	11/29/2021
CA	LUST REG 1	Active Toxic Site Investigation	California Regional Water Quality Control Boa	02/01/2001	02/28/2001	03/29/2001
CA	LUST REG 2	Fuel Leak List	California Regional Water Quality Control Boa	09/30/2004	10/20/2004	11/19/2004
CA	LUST REG 3	Leaking Underground Storage Tank Database	California Regional Water Quality Control Boa	05/19/2003	05/19/2003	06/02/2003
CA	LUST REG 4	Underground Storage Tank Leak List	California Regional Water Quality Control Boa	09/07/2004	09/07/2004	10/12/2004
CA	LUST REG 5	Leaking Underground Storage Tank Database	California Regional Water Quality Control Boa	07/01/2008	07/22/2008	07/31/2008
CA	LUST REG 6L	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Boa	09/09/2003	09/10/2003	10/07/2003
CA	LUST REG 6V	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Boa	06/07/2005	06/07/2005	06/29/2005
CA	LUST REG 7	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Boa	02/26/2004	02/26/2004	03/24/2004
CA	LUST REG 8	Leaking Underground Storage Tanks	California Regional Water Quality Control Boa	02/14/2005	02/15/2005	03/28/2005
CA	LUST REG 9	Leaking Underground Storage Tank Report	California Regional Water Quality Control Boa	03/01/2001	04/23/2001	05/21/2001
CA	MCS	Military Cleanup Sites Listing (GEOTRACKER)	State Water Resources Control Board	09/07/2021	09/07/2021	11/29/2021
CA	MILITARY PRIV SITES	Military Privatized Sites (GEOTRACKER)	State Water Resources Control Board	09/07/2021	09/07/2021	11/29/2021

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
CA	MILITARY UST SITES	Military UST Sites (GEOTRACKER)	State Water Resources Control Board	09/07/2021	09/07/2021	11/29/2021
CA	MINES	Mines Site Location Listing	Department of Conservation	09/07/2021	09/07/2021	11/29/2021
CA	MWMP	Medical Waste Management Program Listing	Department of Public Health	08/05/2021	08/31/2021	11/19/2021
CA	NON-CASE INFO	Non-Case Information Sites (GEOTRACKER)	State Water Resources Control Board	09/07/2021	09/07/2021	11/29/2021
CA	NOTIFY 65	Proposition 65 Records	State Water Resources Control Board	03/12/2021	03/16/2021	06/01/2021
CA	NPDES	NPDES Permits Listing	State Water Resources Control Board	05/10/2021	05/11/2021	07/27/2021
CA	OTHER OIL GAS	Other Oil & Gas Projects Sites (GEOTRACKER)	State Water Resources Control Board	09/07/2021	09/07/2021	11/29/2021
CA	PEST LIC	Pesticide Regulation Licenses Listing	Department of Pesticide Regulation	08/30/2021	08/31/2021	11/19/2021
CA	PFAS	PFAS Contamination Site Location Listing	State Water Resources Control Board	09/07/2021	09/08/2021	12/01/2021
CA	PROC	Certified Processors Database	Department of Conservation	06/04/2021	06/04/2021	08/27/2021
CA	PROD WATER PONDS	Produced Water Ponds Sites (GEOTRACKER)	State Water Resources Control Board	09/07/2021	09/07/2021	11/29/2021
CA	PROJECT	Project Sites (GEOTRACKER)	State Water Resources Control Board	09/07/2021	09/07/2021	11/29/2021
CA	RESPONSE	State Response Sites	Department of Toxic Substances Control	07/22/2021	07/22/2021	10/08/2021
CA	RGALF	Recovered Government Archive Solid Waste Facilities List	Department of Resources Recycling and Recover		07/01/2013	01/13/2014
CA	RGALUST	Recovered Government Archive Leaking Underground Storage Tan	State Water Resources Control Board		07/01/2013	12/30/2013
CA	SAMPLING POINT	Sampling Point ? Public Sites (GEOTRACKER)	State Water Resources Control Board	09/07/2021	09/07/2021	11/29/2021
CA	SAN FRANCISCO AST	Aboveground Storage Tank Site Listing	San Francisco County Department of Public Hea	08/05/2021	08/05/2021	10/29/2021
CA	SCH	School Property Evaluation Program	Department of Toxic Substances Control	07/22/2021	07/22/2021	10/08/2021
CA	SLIC REG 1	Active Toxic Site Investigations	California Regional Water Quality Control Boa	04/03/2003	04/07/2003	04/25/2003
CA	SLIC REG 2	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board San Fran	09/30/2004	10/20/2004	11/19/2004
CA	SLIC REG 3	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Regional Water Quality Control Boa	05/18/2006	05/18/2006	06/15/2006
CA	SLIC REG 4	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Region Water Quality Control Board Los Angele	11/17/2004	11/18/2004	01/04/2005
CA	SLIC REG 5	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board Central	04/01/2005	04/05/2005	04/21/2005
CA	SLIC REG 6L	SLIC Sites	California Regional Water Quality Control Boa	09/07/2004	09/07/2004	10/12/2004
CA	SLIC REG 6V	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board, Victory	05/24/2005	05/25/2005	06/16/2005
CA	SLIC REG 7	SLIC List	California Regional Quality Control Board, Co	11/24/2004	11/29/2004	01/04/2005
CA	SLIC REG 8	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Region Water Quality Control Board	04/03/2008	04/03/2008	04/14/2008
CA	SLIC REG 9	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Regional Water Quality Control Boa	09/10/2007	09/11/2007	09/28/2007
CA	SPILLS 90	SPILLS90 data from FirstSearch	FirstSearch	06/06/2012	01/03/2013	02/22/2013
CA	SWEEPS UST	SWEEPS UST Listing	State Water Resources Control Board	06/01/1994	07/07/2005	08/11/2005
CA	SWF/LF (SWIS)	Solid Waste Information System	Department of Resources Recycling and Recover	08/09/2021	08/10/2021	11/05/2021
CA	SWRCY	Recycler Database	Department of Conservation	09/07/2021	09/08/2021	11/29/2021
CA	TOXIC PITS	Toxic Pits Cleanup Act Sites	State Water Resources Control Board	07/01/1995	08/30/1995	09/26/1995
CA	UIC	UIC Listing	Deaprtment of Conservation	06/03/2021	06/03/2021	08/25/2021
CA	UIC GEO	Underground Injection Control Sites (GEOTRACKER)	State Water Resource Control Board	09/07/2021	09/07/2021	11/29/2021
CA	UST	Active UST Facilities	SWRCB	09/07/2021	09/07/2021	11/30/2021
CA	UST CLOSURE	Proposed Closure of Underground Storage Tank (UST) Cases	State Water Resources Control Board	08/18/2021	09/08/2021	12/03/2021
CA	VCP	Voluntary Cleanup Program Properties	Department of Toxic Substances Control	07/22/2021	07/22/2021	10/08/2021
CA	WASTEWATER PITS	Oil Wastewater Pits Listing	RWQCB, Central Valley Region	02/11/2021	07/01/2021	09/29/2021
CA	WDR	Waste Discharge Requirements Listing	State Water Resources Control Board	09/07/2021	09/08/2021	12/01/2021
CA	WDS	Waste Discharge System	State Water Resources Control Board	06/19/2007	06/20/2007	06/29/2007
CA	WELL STIM PROJ	Well Stimulation Project (GEOTRACKER)	State Water Resources Control Board	09/07/2021	09/07/2021	11/29/2021
CA	WIP	Well Investigation Program Case List	Los Angeles Water Quality Control Board	07/03/2009	07/21/2009	08/03/2009
CA	WMUDS/SWAT	Waste Management Unit Database	State Water Resources Control Board	04/01/2000	04/10/2000	05/10/2000
US	2020 COR ACTION	2020 Corrective Action Program List	Environmental Protection Agency	09/30/2017	05/08/2018	07/20/2018
US	ABANDONED MINES	Abandoned Mines	Department of Interior	06/15/2021	06/16/2021	08/17/2021
US	BRS	Biennial Reporting System	EPANTIS	12/31/2017	06/22/2020	11/20/2020

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	COAL ASH DOE	Steam-Electric Plant Operation Data	Department of Energy	12/31/2019	12/01/2020	02/09/2021
US	COAL ASH EPA	Coal Combustion Residues Surface Impoundments List	Environmental Protection Agency	01/12/2017	03/05/2019	11/11/2019
US	CONSENT	Superfund (CERCLA) Consent Decrees	Department of Justice, Consent Decree Library	06/30/2021	07/14/2021	07/16/2021
US	CORRACTS	Corrective Action Report	EPA	09/13/2021	09/15/2021	10/12/2021
US	DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations	EPA, Region 9	01/12/2009	05/07/2009	09/21/2009
US	DOCKET HWC	Hazardous Waste Compliance Docket Listing	Environmental Protection Agency	05/06/2021	05/21/2021	08/11/2021
US	DOD	Department of Defense Sites	USGS	12/31/2005	11/10/2006	01/11/2007
US	DOT OPS	Incident and Accident Data	Department of Transportation, Office of Pipeli	01/02/2020	01/28/2020	04/17/2020
US	Delisted NPL	National Priority List Deletions	EPA	10/20/2021	11/05/2021	11/29/2021
US	ECHO	Enforcement & Compliance History Information	Environmental Protection Agency	06/26/2021	07/01/2021	09/28/2021
US	EDR Hist Auto	EDR Exclusive Historical Auto Stations	EDR, Inc.			
US	EDR Hist Cleaner	EDR Exclusive Historical Cleaners	EDR, Inc.			
US	EDR MGP	EDR Proprietary Manufactured Gas Plants	EDR, Inc.			
US	EPA WATCH LIST	EPA WATCH LIST	Environmental Protection Agency	08/30/2013	03/21/2014	06/17/2014
US	ERNS	Emergency Response Notification System	National Response Center, United States Coast	06/14/2021	06/17/2021	08/17/2021
US	FEDERAL FACILITY	Federal Facility Site Information listing	Environmental Protection Agency	05/25/2021	06/24/2021	09/20/2021
US	FEDLAND	Federal and Indian Lands	U.S. Geological Survey	04/02/2018	04/11/2018	11/06/2019
US	FEMA UST	Underground Storage Tank Listing	FEMA	01/29/2021	02/17/2021	03/22/2021
US	FINDS	Facility Index System/Facility Registry System	EPA	05/05/2021	05/18/2021	08/17/2021
US	FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA/Office of Prevention, Pesticides and Toxi	04/09/2009	04/16/2009	05/11/2009
US	FTTS INSP	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA	04/09/2009	04/16/2009	05/11/2009
US	FUDS	Formerly Used Defense Sites	U.S. Army Corps of Engineers	08/10/2021	08/17/2021	10/22/2021
US	FUELS PROGRAM	EPA Fuels Program Registered Listing	EPA	08/13/2021	08/13/2021	10/22/2021
US	FUSRAP	Formerly Utilized Sites Remedial Action Program	Department of Energy	07/26/2021	07/27/2021	10/22/2021
US	HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HIST FTTS INSP	FIFRA/TSCA Tracking System Inspection & Enforcement Case Lis	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HMIRS	Hazardous Materials Information Reporting System	U.S. Department of Transportation	09/12/2021	09/13/2021	09/28/2021
US	ICIS	Integrated Compliance Information System	Environmental Protection Agency	11/18/2016	11/23/2016	02/10/2017
US	IHS OPEN DUMPS	Open Dumps on Indian Land	Department of Health & Human Serivces, Indian	04/01/2014	08/06/2014	01/29/2015
US	INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land	EPA Region 1	04/28/2021	06/11/2021	09/07/2021
US	INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land	EPA Region 10	04/27/2021	06/11/2021	09/07/2021
US	INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land	EPA Region 4	05/28/2021	06/22/2021	09/20/2021
US	INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land	EPA, Region 5	04/06/2021	06/11/2021	09/07/2021
US	INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land	EPA Region 6	05/17/2021	06/11/2021	09/07/2021
US	INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land	EPA Region 7	06/01/2021	06/11/2021	09/07/2021
US	INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land	EPA Region 8	05/27/2021	06/11/2021	09/07/2021
US	INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land	Environmental Protection Agency	05/27/2021	06/11/2021	09/07/2021
US	INDIAN ODI	Report on the Status of Open Dumps on Indian Lands	Environmental Protection Agency	12/31/1998	12/03/2007	01/24/2008
US	INDIAN RESERV	Indian Reservations	USGS	12/31/2014	07/14/2015	01/10/2017
US	INDIAN UST R1	Underground Storage Tanks on Indian Land	EPA, Region 1	04/28/2021	06/11/2021	09/07/2021
US	INDIAN UST R10	Underground Storage Tanks on Indian Land	EPA Region 10	04/27/2021	06/11/2021	09/07/2021
US	INDIAN UST R4	Underground Storage Tanks on Indian Land	EPA Region 4	05/28/2021	06/22/2021	09/20/2021
US	INDIAN UST R5	Underground Storage Tanks on Indian Land	EPA Region 5	04/06/2021	06/11/2021	09/07/2021
US	INDIAN UST R6	Underground Storage Tanks on Indian Land	EPA Region 6	05/17/2021	06/11/2021	09/07/2021
US	INDIAN UST R7	Underground Storage Tanks on Indian Land	EPA Region 7	06/01/2021	06/11/2021	09/07/2021
US	INDIAN UST R8	Underground Storage Tanks on Indian Land	EPA Region 8	05/27/2021	06/11/2021	09/07/2021
US	INDIAN UST R9	Underground Storage Tanks on Indian Land	EPA Region 9	05/27/2021	06/11/2021	09/07/2021

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	INDIAN VCP R1	Voluntary Cleanup Priority Listing	EPA, Region 1	07/27/2015	09/29/2015	02/18/2016
US	INDIAN VCP R7	Voluntary Cleanup Priority Lisitng	EPA, Region 7	03/20/2008	04/22/2008	05/19/2008
US	LEAD SMELTER 1	Lead Smelter Sites	Environmental Protection Agency	10/20/2021	11/05/2021	11/29/2021
US	LEAD SMELTER 2	Lead Smelter Sites	American Journal of Public Health	04/05/2001	10/27/2010	12/02/2010
US	LIENS 2	CERCLA Lien Information	Environmental Protection Agency	10/20/2021	11/05/2021	11/29/2021
US	LUCIS	Land Use Control Information System	Department of the Navy	07/12/2021	08/06/2021	10/22/2021
US	MINES MRDS	Mineral Resources Data System	USGS	04/06/2018	10/21/2019	10/24/2019
US	MINES VIOLATIONS	MSHA Violation Assessment Data	DOL, Mine Safety & Health Admi	06/30/2021	07/01/2021	09/28/2021
US	MLTS	Material Licensing Tracking System	Nuclear Regulatory Commission	07/29/2021	08/24/2021	11/19/2021
US	NPL	National Priority List	EPA	10/20/2021	11/05/2021	11/29/2021
US	NPL LIENS	Federal Superfund Liens	EPA	10/15/1991	02/02/1994	03/30/1994
US	ODI	Open Dump Inventory	Environmental Protection Agency	06/30/1985	08/09/2004	09/17/2004
US	PADS	PCB Activity Database System	EPA	11/19/2020	01/08/2021	03/22/2021
US	PCB TRANSFORMER	PCB Transformer Registration Database	Environmental Protection Agency	09/13/2019	11/06/2019	02/10/2020
US	PCS	Permit Compliance System	EPA, Office of Water	07/14/2011	08/05/2011	09/29/2011
US	PCS ENF	Enforcement data	EPA	12/31/2014	02/05/2015	03/06/2015
US	PCS INACTIVE	Listing of Inactive PCS Permits	EPA	11/05/2014	01/06/2015	05/06/2015
US	PRP	Potentially Responsible Parties	EPA	12/30/2020	01/14/2021	03/05/2021
US	Proposed NPL	Proposed National Priority List Sites	EPA	10/20/2021	11/05/2021	11/29/2021
US	RAATS	RCRA Administrative Action Tracking System	EPA	04/17/1995	07/03/1995	08/07/1995
US	RADINFO	Radiation Information Database	Environmental Protection Agency	07/01/2019	07/01/2019	09/23/2019
US	RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated	Environmental Protection Agency	09/13/2021	09/15/2021	10/12/2021
US	RCRA-LQG	RCRA - Large Quantity Generators	Environmental Protection Agency	09/13/2021	09/15/2021	10/12/2021
US	RCRA-SQG	RCRA - Small Quantity Generators	Environmental Protection Agency	09/13/2021	09/15/2021	10/12/2021
US	RCRA-TSDF	RCRA - Treatment, Storage and Disposal	Environmental Protection Agency	09/13/2021	09/15/2021	10/12/2021
US	RCRA-VSQG	RCRA - Very Small Quantity Generators (Formerly Conditionall	Environmental Protection Agency	09/13/2021	09/15/2021	10/12/2021
US	RMP	Risk Management Plans	Environmental Protection Agency	10/20/2021	11/05/2021	11/12/2021
US	ROD	Records Of Decision	EPA	10/20/2021	11/05/2021	11/29/2021
US	SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing	Environmental Protection Agency	01/01/2017	02/03/2017	04/07/2017
US	SEMS	Superfund Enterprise Management System	EPA	10/20/2021	11/05/2021	11/29/2021
US	SEMS-ARCHIVE	Superfund Enterprise Management System Archive	EPA	10/20/2021	11/05/2021	11/29/2021
US	SSTS	Section 7 Tracking Systems	EPA	07/19/2021	07/19/2021	10/12/2021
US	TRIS	Toxic Chemical Release Inventory System	EPA	12/31/2018	08/14/2020	11/04/2020
US	TSCA	Toxic Substances Control Act	EPA	12/31/2016	06/17/2020	09/10/2020
US	UMTRA	Uranium Mill Tailings Sites	Department of Energy	08/30/2019	11/15/2019	01/28/2020
US	US AIRS (AFS)	Aerometric Information Retrieval System Facility Subsystem (	EPA	10/12/2016	10/26/2016	02/03/2017
US	US AIRS MINOR	Air Facility System Data	EPA	10/12/2016	10/26/2016	02/03/2017
US	US BROWNFIELDS	A Listing of Brownfields Sites	Environmental Protection Agency	06/10/2021	06/10/2021	08/17/2021
US	US CDL	Clandestine Drug Labs	Drug Enforcement Administration	05/18/2021	05/18/2021	08/03/2021
US	US ENG CONTROLS	Engineering Controls Sites List	Environmental Protection Agency	08/23/2021	08/23/2021	11/12/2021
US	US FIN ASSUR	Financial Assurance Information	Environmental Protection Agency	09/13/2021	09/15/2021	09/28/2021
US	US HIST CDL	National Clandestine Laboratory Register	Drug Enforcement Administration	05/18/2021	05/18/2021	08/03/2021
US	US INST CONTROLS	Institutional Controls Sites List	Environmental Protection Agency	08/23/2021	08/23/2021	11/12/2021
US	US MINES	Mines Master Index File	Department of Labor, Mine Safety and Health A	08/09/2021	08/24/2021	11/19/2021
US	US MINES 2	Ferrous and Nonferrous Metal Mines Database Listing	USGS	05/06/2020	05/27/2020	08/13/2020
US	US MINES 3	Active Mines & Mineral Plants Database Listing	USGS	04/14/2011	06/08/2011	09/13/2011
US	UXO	Unexploded Ordnance Sites	Department of Defense	12/31/2018	07/02/2020	09/17/2020

## GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
CT	CT MANIFEST	Hazardous Waste Manifest Data	Department of Energy & Environmental Protecti	07/23/2021	08/10/2021	11/08/2021
NJ	NJ MANIFEST	Manifest Information	Department of Environmental Protection	12/31/2018	04/10/2019	05/16/2019
NY	NY MANIFEST	Facility and Manifest Data	Department of Environmental Conservation	01/01/2019	04/29/2020	07/10/2020
PA	PA MANIFEST	Manifest Information	Department of Environmental Protection	06/30/2018	07/19/2019	09/10/2019
RI	RI MANIFEST	Manifest information	Department of Environmental Management	12/31/2019	02/11/2021	02/24/2021
WI	WI MANIFEST	Manifest Information	Department of Natural Resources	05/31/2018	06/19/2019	09/03/2019
US	AHA Hospitals	Sensitive Receptor: AHA Hospitals	American Hospital Association, Inc.			
US	Medical Centers	Sensitive Receptor: Medical Centers	Centers for Medicare & Medicaid Services			
US	Nursing Homes	Sensitive Receptor: Nursing Homes	National Institutes of Health			
US	Public Schools	Sensitive Receptor: Public Schools	National Center for Education Statistics			
US	Private Schools	Sensitive Receptor: Private Schools	National Center for Education Statistics			
CA	Daycare Centers	Sensitive Receptor: Licensed Facilities	Department of Social Services			
US	Flood Zones	100-year and 500-year flood zones	Emergency Management Agency (FEMA)			
US	NWI	National Wetlands Inventory	U.S. Fish and Wildlife Service			
CA	State Wetlands	Wetland Inventory	Department of Fish and Wildlife			
US	Topographic Map		U.S. Geological Survey			
US	Oil/Gas Pipelines		Endeavor Business Media			
US	Electric Power Transmission Line Data		Endeavor Business Media			

### STREET AND ADDRESS INFORMATION

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## GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE ADDENDUM

### TARGET PROPERTY ADDRESS

5355 EAST AIRPORT DRIVE  
5355 EAST AIRPORT DRIVE  
ONTARIO, CA 91761

### TARGET PROPERTY COORDINATES

Latitude (North):	34.063461 - 34° 3' 48.46"
Longitude (West):	117.533485 - 117° 32' 0.55"
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	450769.1
UTM Y (Meters):	3769126.2
Elevation:	983 ft. above sea level

### USGS TOPOGRAPHIC MAP

Target Property Map:	12015973 GUASTI, CA
Version Date:	2018

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

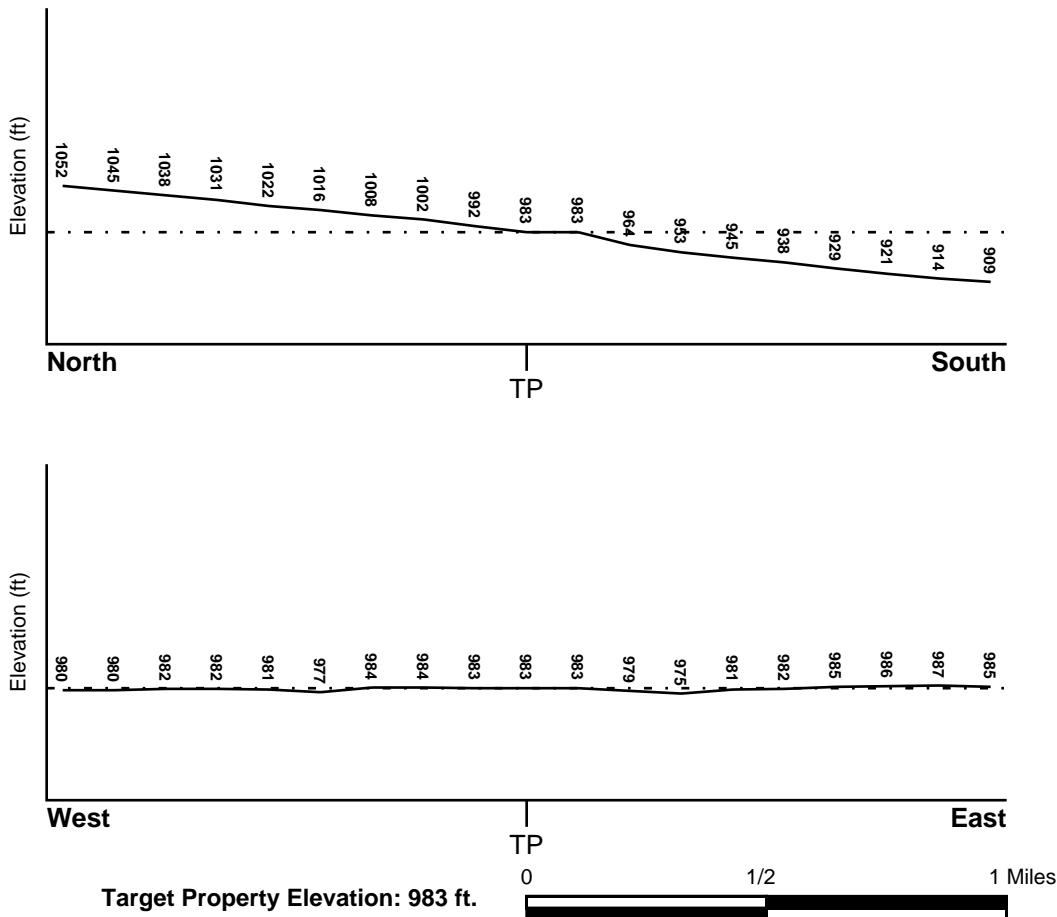
## TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General South

## SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.



# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

## **FEMA FLOOD ZONE**

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
06071C8633H	FEMA FIRM Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
06071C8634J	FEMA FIRM Flood data
06071C8641H	FEMA FIRM Flood data
06065C0017G	FEMA FIRM Flood data

## **NATIONAL WETLAND INVENTORY**

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
GUASTI	YES - refer to the Overview Map and Detail Map

## **HYDROGEOLOGIC INFORMATION**

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

### ***Site-Specific Hydrogeological Data\*:***

Search Radius:	1.25 miles
Status:	Not found

## **AQUIFLOW®**

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

\* ©1996 Site-specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

### GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

#### **ROCK STRATIGRAPHIC UNIT**

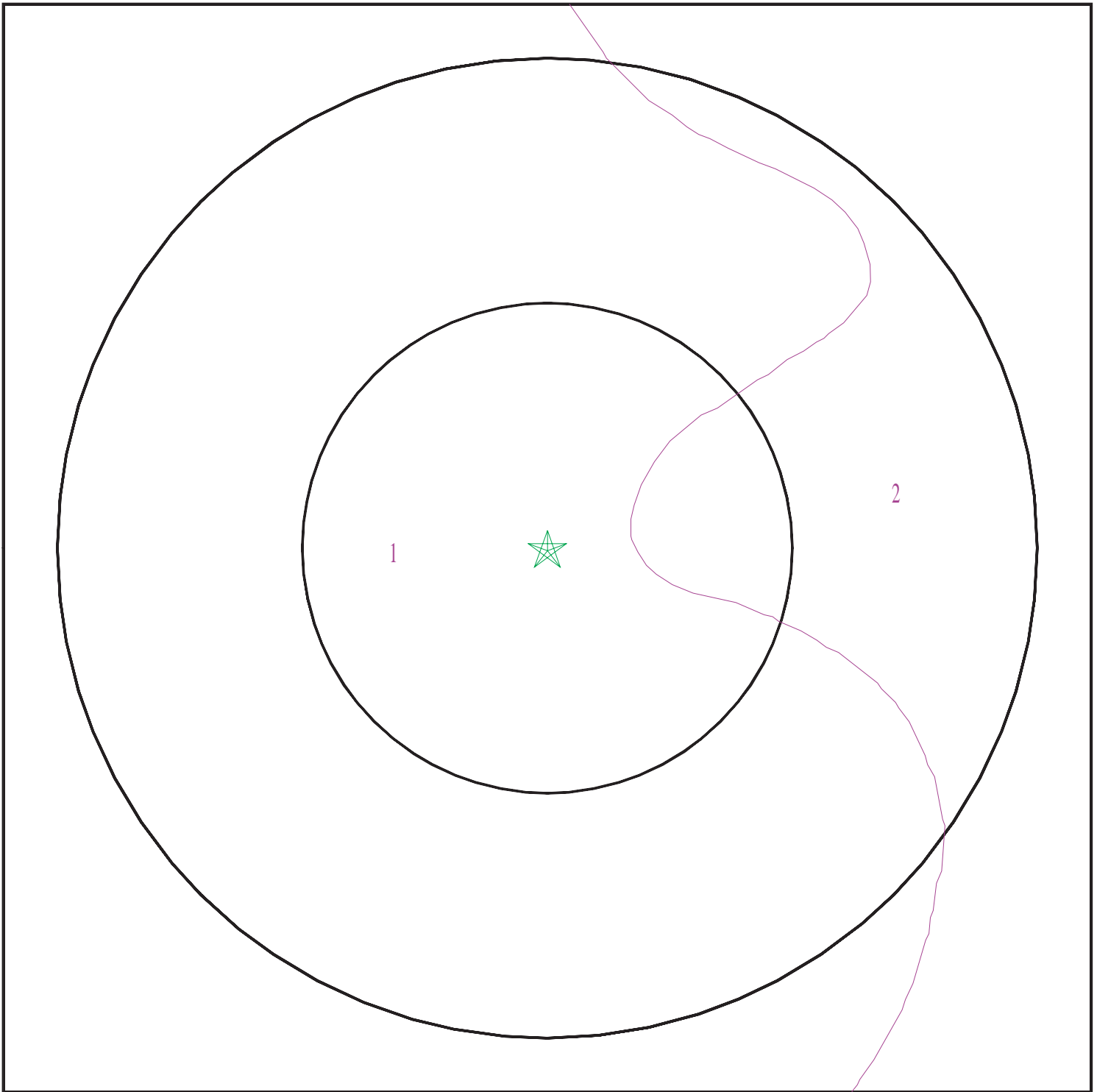
Era: Cenozoic  
System: Quaternary  
Series: Quaternary  
Code: Q (*decoded above as Era, System & Series*)

#### **GEOLOGIC AGE IDENTIFICATION**

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

# SSURGO SOIL MAP - 6782886.2s



- ★ Target Property
- ∩ SSURGO Soil
- ∩ Water



SITE NAME: 5355 East Airport Drive  
ADDRESS: 5355 East Airport Drive  
Ontario CA 91761  
LAT/LONG: 34.063461 / 117.533485

CLIENT: Farallon Consulting, LLC  
CONTACT: Amanda Garcia  
INQUIRY #: 6782886.2s  
DATE: December 09, 2021 3:59 pm

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

#### Soil Map ID: 1

Soil Component Name: DELHI

Soil Surface Texture: fine sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	18 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.1
2	18 inches	59 inches	sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.1

#### Soil Map ID: 2

Soil Component Name: TUJUNGA

Soil Surface Texture: gravelly loamy sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	18 inches	gravelly loamy sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.1
2	18 inches	59 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.1

### LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

### WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

### FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
B9	USGS40000140231	1/2 - 1 Mile SSE

## FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

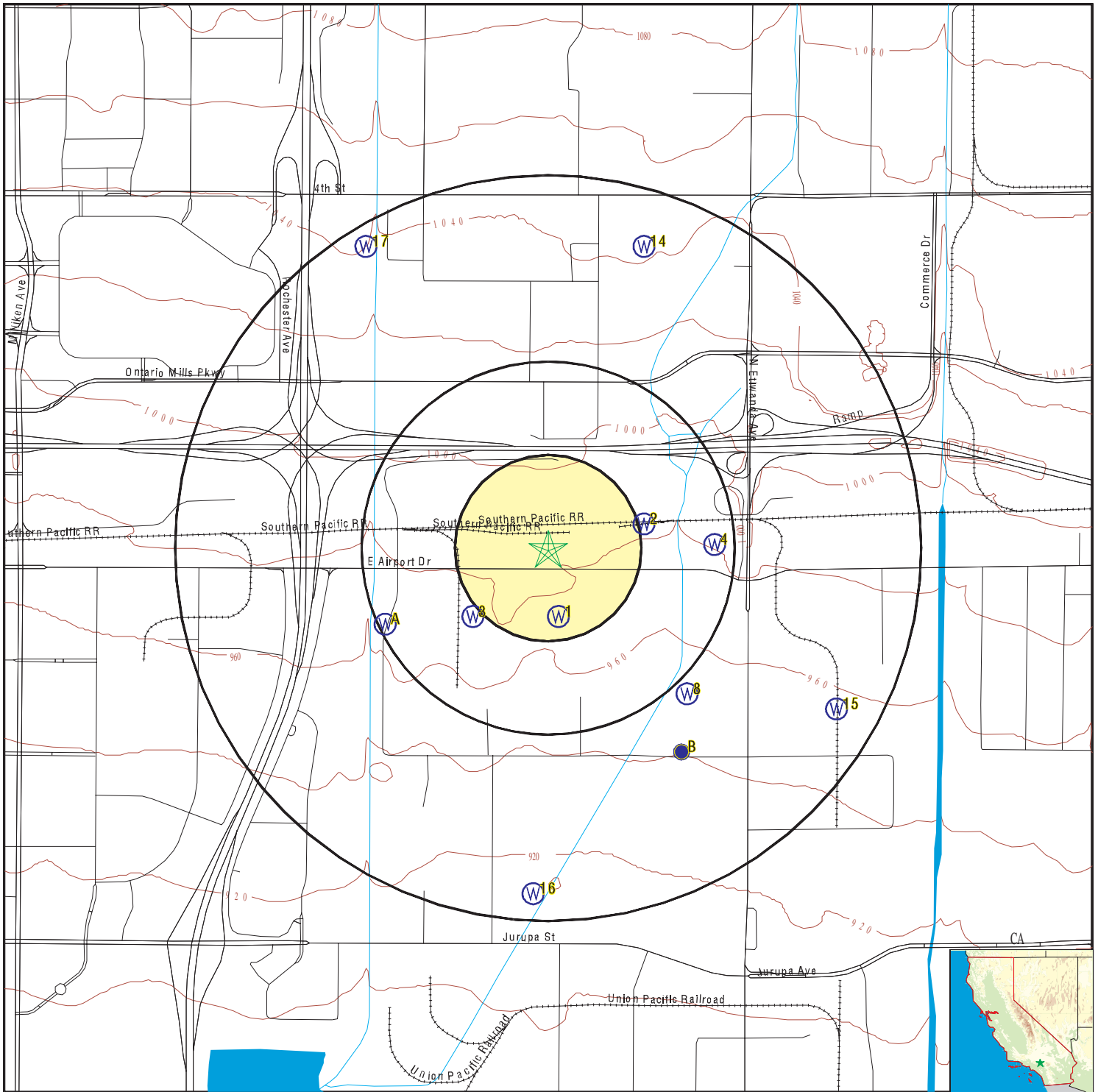
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

## STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	CADWR0000002620	1/8 - 1/4 Mile South
2	CADWR0000031425	1/4 - 1/2 Mile ENE
3	CADWR0000006211	1/4 - 1/2 Mile SW
4	CADPR0000001331	1/4 - 1/2 Mile East
A5	CADDW0000004888	1/4 - 1/2 Mile WSW
A6	CAUSGSN00012993	1/4 - 1/2 Mile WSW
A7	CAUSGS000000436	1/4 - 1/2 Mile WSW
8	1044	1/2 - 1 Mile SE
B10	CADDW0000005246	1/2 - 1 Mile SSE
B11	CAUSGSN00017805	1/2 - 1 Mile SSE
B12	CAUSGS0000006646	1/2 - 1 Mile SSE
B13	CADWR9000006541	1/2 - 1 Mile SE
14	CADWR0000024134	1/2 - 1 Mile NNE
15	CADWR0000030205	1/2 - 1 Mile ESE
16	1043	1/2 - 1 Mile South
17	CADWR0000034955	1/2 - 1 Mile NNW

# PHYSICAL SETTING SOURCE MAP - 6782886.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME: 5355 East Airport Drive  
 ADDRESS: 5355 East Airport Drive  
 Ontario CA 91761  
 LAT/LONG: 34.063461 / 117.533485

CLIENT: Farallon Consulting, LLC  
 CONTACT: Amanda Garcia  
 INQUIRY #: 6782886.2s  
 DATE: December 09, 2021 3:58 pm

## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID	Direction	Distance	Elevation	Database	EDR ID Number
1	South	1/8 - 1/4 Mile	Lower	CA WELLS	CADWR0000002620
<a href="#">Click here for full text details</a>					
2	ENE	1/4 - 1/2 Mile	Higher	CA WELLS	CADWR0000031425
<a href="#">Click here for full text details</a>					
3	SW	1/4 - 1/2 Mile	Lower	CA WELLS	CADWR0000006211
<a href="#">Click here for full text details</a>					
4	East	1/4 - 1/2 Mile	Lower	CA WELLS	CADPR0000001331
<a href="#">Click here for full text details</a>					
A5	WSW	1/4 - 1/2 Mile	Lower	CA WELLS	CADDW0000004888
<a href="#">Click here for full text details</a>					
A6	WSW	1/4 - 1/2 Mile	Lower	CA WELLS	CAUSGSN00012993
<a href="#">Click here for full text details</a>					
A7	WSW	1/4 - 1/2 Mile	Lower	CA WELLS	CAUSGS000000436
<a href="#">Click here for full text details</a>					
8	SE	1/2 - 1 Mile	Lower	CA WELLS	1044
<a href="#">Click here for full text details</a>					



## GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
B9 SSE 1/2 - 1 Mile Lower	<a href="#">Click here for full text details</a>	FED USGS	USGS40000140231
B10 SSE 1/2 - 1 Mile Lower	<a href="#">Click here for full text details</a>	CA WELLS	CADDW0000005246
B11 SSE 1/2 - 1 Mile Lower	<a href="#">Click here for full text details</a>	CA WELLS	CAUSGSN00017805
B12 SSE 1/2 - 1 Mile Lower	<a href="#">Click here for full text details</a>	CA WELLS	CAUSGS000000646
B13 SE 1/2 - 1 Mile Lower	<a href="#">Click here for full text details</a>	CA WELLS	CADWR9000006541
14 NNE 1/2 - 1 Mile Higher	<a href="#">Click here for full text details</a>	CA WELLS	CADWR0000024134
15 ESE 1/2 - 1 Mile Lower	<a href="#">Click here for full text details</a>	CA WELLS	CADWR0000030205
16 South 1/2 - 1 Mile Lower	<a href="#">Click here for full text details</a>	CA WELLS	1043
17 NNW 1/2 - 1 Mile Higher	<a href="#">Click here for full text details</a>	CA WELLS	CADWR0000034955

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

State Database: CA Radon

### Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
91761	7	0

Federal EPA Radon Zone for SAN BERNARDINO County: 2

- Note: Zone 1 indoor average level > 4 pCi/L.  
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.  
 : Zone 3 indoor average level < 2 pCi/L.

---

### Federal Area Radon Information for SAN BERNARDINO COUNTY, CA

Number of sites tested: 18

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.678 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Source: U.S. Geological Survey

## HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: Department of Fish and Wildlife

Telephone: 916-445-0411

## HYDROGEOLOGIC INFORMATION

AQUIFLOW<sup>R</sup> Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

## GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## LOCAL / REGIONAL WATER AGENCY RECORDS

### FEDERAL WATER WELLS

#### PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

#### PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

#### USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

## OTHER STATE DATABASE INFORMATION

### Groundwater Ambient Monitoring & Assessment Program

State Water Resources Control Board

Telephone: 916-341-5577

The GAMA Program is California's comprehensive groundwater quality monitoring program. GAMA collects data by testing the untreated, raw water in different types of wells for naturally-occurring and man-made chemicals. The GAMA data includes Domestic, Monitoring and Municipal well types from the following sources, Department of Water Resources, Department of Health Services, EDF, Agricultural Lands, Lawrence Livermore National Laboratory, Department of Pesticide Regulation, United States Geological Survey, Groundwater Ambient Monitoring and Assessment Program and Local Groundwater Projects.

### Water Well Database

Source: Department of Water Resources

Telephone: 916-651-9648

### California Drinking Water Quality Database

Source: Department of Public Health

Telephone: 916-324-2319

The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

### California Oil and Gas Well Locations

Source: Dept of Conservation, Geologic Energy Management Division

Telephone: 916-323-1779

Oil and Gas well locations in the state.

### California Earthquake Fault Lines

Source: California Division of Mines and Geology

The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

## RADON

### State Database: CA Radon

Source: Department of Public Health

Telephone: 916-210-8558

Radon Database for California

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

## EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRRA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

## OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

## STREET AND ADDRESS INFORMATION

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**APPENDIX F  
BORING LOGS**

PHASE I/PHASE II  
ENVIRONMENTAL SITE ASSESSMENT REPORT  
5355 East Airport Drive  
Ontario, California

Farallon PN: 1071-080 (Task 2)



# Log of Boring: SB-1

<b>Client:</b> Prologis Inc	<b>Date/Time Started:</b> 3/4/2022	<b>Depth to Water ATD (ft bgs):</b> NE
<b>Project:</b> 5355 Airport Drive	<b>Date/Time Completed:</b> 3/4/2022	<b>Boring Diameter (in):</b> NA
<b>Location:</b> Ontario, California	<b>Drilling Company:</b> Millenium	<b>Total Boring Depth (ft bgs):</b> 10.0
<b>Farallon PN:</b> 1071-080	<b>Drilling Method:</b> Direct Push	<b>Constructed Well Depth (ft bgs):</b> NA
<b>Logged By:</b> Nate Montoy	<b>Drilling Equipment:</b> Geoprobe 7822DT	
<b>Reviewed By:</b> Kathy Lehnus	<b>Drilling Operator:</b> Andrew	
	<b>Sampler Type:</b> Acetate Sleeve	

Depth (ft bgs)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
----------------	-----------------	------------------------	------	--------------	------------	------------	-----------	-----------------	----------------------------------

0	0.8': Asphalt/Concrete/gravel road base.	AC							Concrete
	1.0': Silty SAND, brown (10 YR 4/3), fine to medium sand, moist, no odor.	SM							
	3.0': Silty SAND, light brownish gray (2.5 Y 6/2), fine to medium sand, moist, no odor.			50	0.3				
5									Bentonite
	8.0': Poorly-graded SAND, fine sand, trace coarse sand and 0.01" gravel, yellowish brown (10YR 4/6), dry, no odor.	SP							
10	10.0': End of Boring.			40	0.2	SB-1-10.0			

### Well Construction Information

<b>Monument Type:</b> NA	<b>Filter Pack:</b> NA	<b>Ground Surface Elevation (ft):</b> NA
<b>Casing Diameter (in):</b> NA	<b>Surface Seal:</b> NA	<b>Top of Casing Elevation (ft):</b> NA
<b>Screen Slot Size (in):</b> NA	<b>Annular Seal:</b> NA	<b>Surveyed Location: X:</b> NA <b>Y:</b> NA
<b>Screened Interval (ft bgs):</b> NA	<b>Boring Abandonment:</b> NA	<b>Unique Well ID:</b> NA



# Log of Boring: SB-2

<b>Client:</b> Prologis Inc	<b>Date/Time Started:</b> 3/4/2022	<b>Depth to Water ATD (ft bgs):</b> NE
<b>Project:</b> 5355 Airport Drive	<b>Date/Time Completed:</b> 3/4/2022	<b>Boring Diameter (in):</b> NA
<b>Location:</b> Ontario, California	<b>Drilling Company:</b> Millenium	<b>Total Boring Depth (ft bgs):</b> 10.0
<b>Farallon PN:</b> 1071-080	<b>Drilling Method:</b> Direct Push	<b>Constructed Well Depth (ft bgs):</b> NA
<b>Logged By:</b> Nate Montoy	<b>Drilling Equipment:</b> Geoprobe 7822DT	
<b>Reviewed By:</b> Kathy Lehnus	<b>Drilling Operator:</b> Andrew	
	<b>Sampler Type:</b> Acetate Sleeve	

Depth (ft bgs)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
----------------	-----------------	------------------------	------	--------------	------------	------------	-----------	-----------------	----------------------------------

0	0.67'	Asphalt/concrete/gravel road base.	AC						Concrete
	0.67'	Silty SAND, dark brown (10 YR 4/3), fine sand, moist, no odor.	SM						
5	5.0'	Poorly-graded SAND, medium to coarse sand, gray (10YR 6/1), moist, no odor.	SP		30	0.6			Bentonite
10	10.5'	End of Boring.			30	0.4	SB-2-10.0		

### Well Construction Information

<b>Monument Type:</b>	NA	<b>Filter Pack:</b>	NA	<b>Ground Surface Elevation (ft):</b>	NA
<b>Casing Diameter (in):</b>	NA	<b>Surface Seal:</b>	NA	<b>Top of Casing Elevation (ft):</b>	NA
<b>Screen Slot Size (in):</b>	NA	<b>Annular Seal:</b>	NA	<b>Surveyed Location: X:</b>	NA
<b>Screened Interval (ft bgs):</b>	NA	<b>Boring Abandonment:</b>	NA	<b>Y:</b>	NA
				<b>Unique Well ID:</b>	NA





# Log of Boring: SVP-1

<b>Client:</b> Prologis Inc	<b>Date/Time Started:</b> 3/4/2022	<b>Depth to Water ATD (ft bgs):</b> NE
<b>Project:</b> 5355 Airport Drive	<b>Date/Time Completed:</b> 3/4/2022	<b>Boring Diameter (in):</b> NA
<b>Location:</b> Ontario, California	<b>Drilling Company:</b> Millenium	<b>Total Boring Depth (ft bgs):</b> 10.5
<b>Farallon PN:</b> 1071-080	<b>Drilling Method:</b> Direct Push	<b>Constructed Well Depth (ft bgs):</b> NA
<b>Logged By:</b> Nate Montoy	<b>Drilling Equipment:</b> Geoprobe 7822DT	
<b>Reviewed By:</b> Kathy Lehnus	<b>Drilling Operator:</b> Andrew	
	<b>Sampler Type:</b> Acetate Sleeve	

Depth (ft bgs)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
----------------	-----------------	------------------------	------	--------------	------------	------------	-----------	-----------------	----------------------------------

0	0.17': Asphalt.		AC						#3 Sand
	0.75': Concrete/gravel road base.								
	1.0': Silty SAND, brown (10 YR 4/3), fine to medium sand, moist, no odor.		SM						Hydrated #8 Bentonite
	3.0': Silty SAND, light brownish gray (2.5 Y 6/2), fine to medium sand, moist, no odor.								Dry #8 Bentonite
									Vapor probe
									#3 Sand
5	6.0': Silty SAND, light brownish gray (2.5 Y 6/2), fine to medium sand, moist, no odor.		SM		45	0.3			Dry #8 Bentonite
									Hydrated #8 Bentonite
	8.0': Poorly-graded SAND, fine to medium sand, dark yellowish brown (10YR 6/2), trace silt, dry, no odor.		SP						Dry #8 Bentonite
									Vapor probe
10	10.0': End of Boring.				35	0.8	SVP-1-10.0		#3 Sand

### Well Construction Information

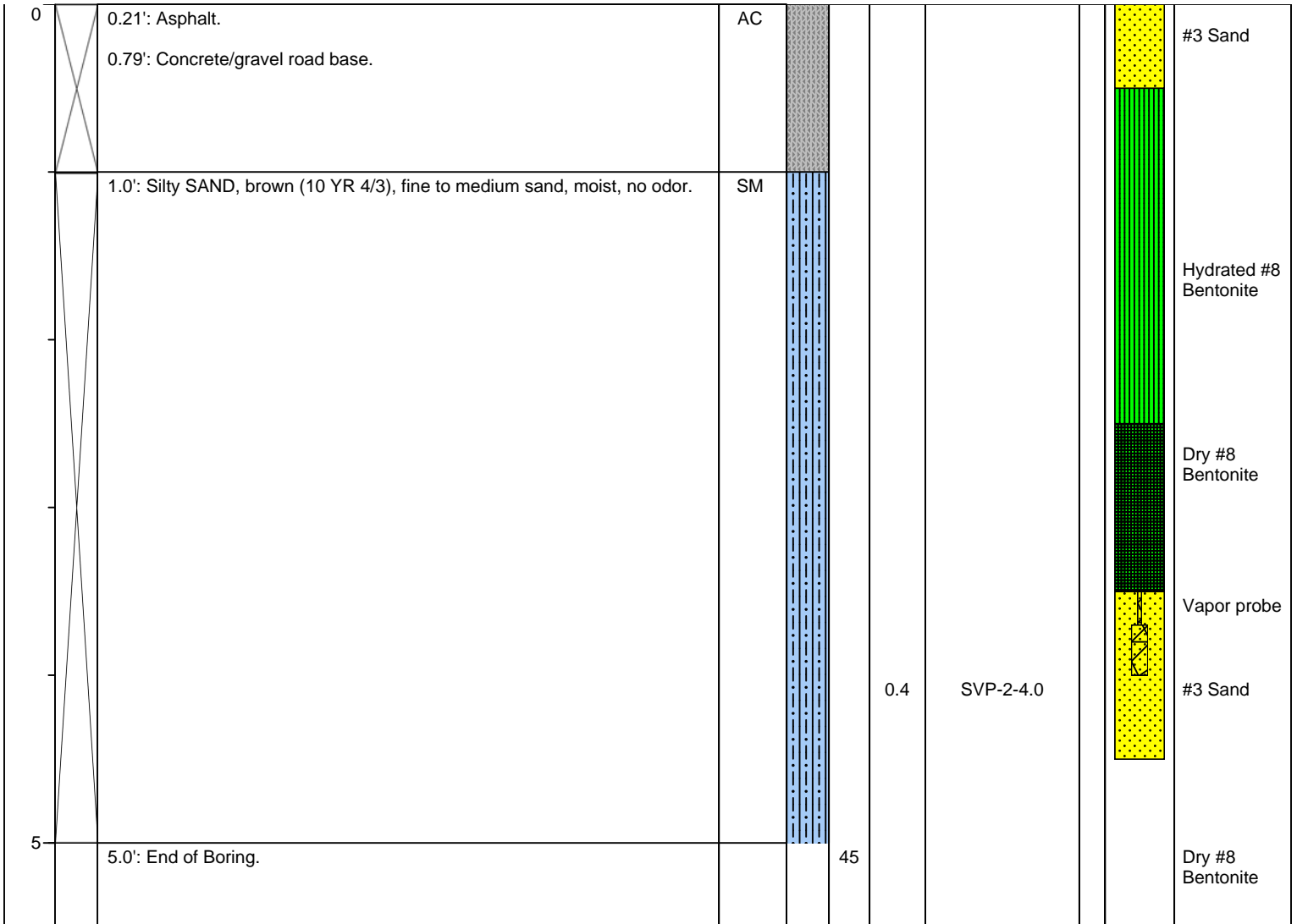
<b>Monument Type:</b>	NA	<b>Filter Pack:</b>	NA	<b>Ground Surface Elevation (ft):</b>	NA
<b>Casing Diameter (in):</b>	NA	<b>Surface Seal:</b>	NA	<b>Top of Casing Elevation (ft):</b>	NA
<b>Screen Slot Size (in):</b>	NA	<b>Annular Seal:</b>	NA	<b>Surveyed Location: X:</b>	NA
<b>Screened Interval (ft bgs):</b>	NA	<b>Boring Abandonment:</b>	NA	<b>Y:</b>	NA
				<b>Unique Well ID:</b>	NA



# Log of Boring: SVP-2

<b>Client:</b> Prologis Inc	<b>Date/Time Started:</b> 3/4/2022	<b>Depth to Water ATD (ft bgs):</b> NE
<b>Project:</b> 5355 Airport Drive	<b>Date/Time Completed:</b> 3/4/2022	<b>Boring Diameter (in):</b> NA
<b>Location:</b> Ontario, California	<b>Drilling Company:</b> Millenium	<b>Total Boring Depth (ft bgs):</b> 4.5
<b>Farallon PN:</b> 1071-080	<b>Drilling Method:</b> Direct Push	<b>Constructed Well Depth (ft bgs):</b> NA
<b>Logged By:</b> Nate Montoy	<b>Drilling Equipment:</b> Geoprobe 7822DT	
<b>Reviewed By:</b> Kathy Lehnus	<b>Drilling Operator:</b> Andrew	
	<b>Sampler Type:</b> Acetate Sleeve	

Depth (ft bgs)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
----------------	-----------------	------------------------	------	--------------	------------	------------	-----------	-----------------	----------------------------------



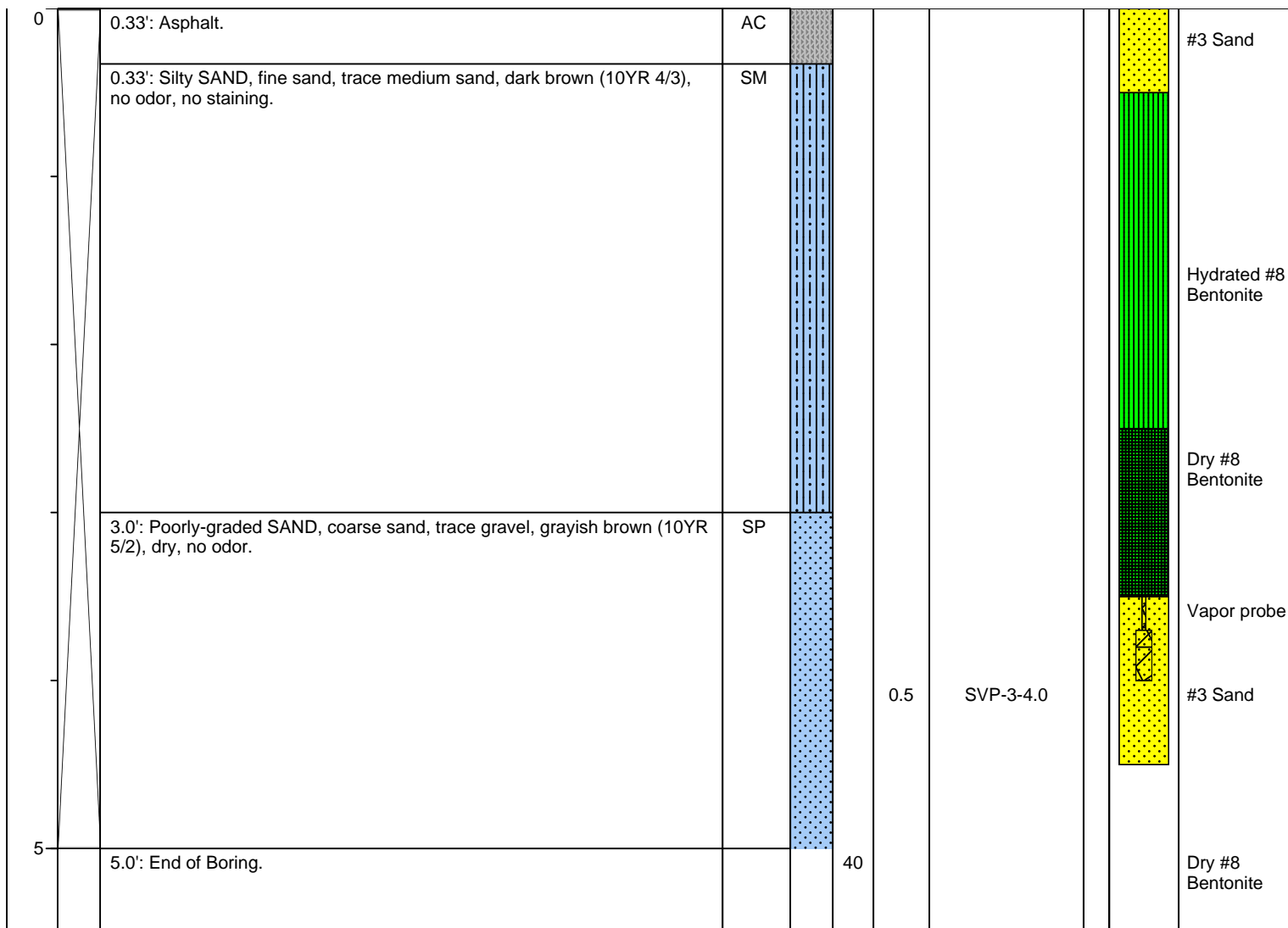
Well Construction Information					
<b>Monument Type:</b>	NA	<b>Filter Pack:</b>	#3 Sand	<b>Ground Surface Elevation (ft):</b>	NA
<b>Casing Diameter (in):</b>	NA	<b>Surface Seal:</b>	Sand	<b>Top of Casing Elevation (ft):</b>	NA
<b>Screen Slot Size (in):</b>	NA	<b>Annular Seal:</b>	Bentonite	<b>Surveyed Location: X:</b>	NA
<b>Screened Interval (ft bgs):</b>	NA	<b>Boring Abandonment:</b>	NA	<b>Surveyed Location: Y:</b>	NA
				<b>Unique Well ID:</b>	NA



# Log of Boring: SVP-3

<b>Client:</b> Prologis Inc	<b>Date/Time Started:</b> 3/4/2022	<b>Depth to Water ATD (ft bgs):</b> NE
<b>Project:</b> 5355 Airport Drive	<b>Date/Time Completed:</b> 3/4/2022	<b>Boring Diameter (in):</b> NA
<b>Location:</b> Ontario, California	<b>Drilling Company:</b> Millenium	<b>Total Boring Depth (ft bgs):</b> 4.5
<b>Farallon PN:</b> 1071-080	<b>Drilling Method:</b> Direct Push	<b>Constructed Well Depth (ft bgs):</b> NA
<b>Logged By:</b> Nate Montoy	<b>Drilling Equipment:</b> Geoprobe 7822DT	
<b>Reviewed By:</b> Kathy Lehnus	<b>Drilling Operator:</b> Andrew	
	<b>Sampler Type:</b> Acetate Sleeve	

Depth (ft bgs)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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### Well Construction Information

<b>Monument Type:</b> NA	<b>Filter Pack:</b> #3 Sand	<b>Ground Surface Elevation (ft):</b> NA
<b>Casing Diameter (in):</b> NA	<b>Surface Seal:</b> Sand	<b>Top of Casing Elevation (ft):</b> NA
<b>Screen Slot Size (in):</b> NA	<b>Annular Seal:</b> Bentonite	<b>Surveyed Location:</b> X: NA Y: NA
<b>Screened Interval (ft bgs):</b> NA	<b>Boring Abandonment:</b> NA	<b>Unique Well ID:</b> NA



# Log of Boring: SVP-4

<b>Client:</b> Prologis Inc	<b>Date/Time Started:</b> 3/4/2022	<b>Depth to Water ATD (ft bgs):</b> NE
<b>Project:</b> 5355 Airport Drive	<b>Date/Time Completed:</b> 3/4/2022	<b>Boring Diameter (in):</b> NA
<b>Location:</b> Ontario, California	<b>Drilling Company:</b> Millenium	<b>Total Boring Depth (ft bgs):</b> 4.5
<b>Farallon PN:</b> 1071-080	<b>Drilling Method:</b> Direct Push	<b>Constructed Well Depth (ft bgs):</b> NA
<b>Logged By:</b> Nate Montoy	<b>Drilling Equipment:</b> Geoprobe 7822DT	
<b>Reviewed By:</b> Kathy Lehnus	<b>Drilling Operator:</b> Andrew	
	<b>Sampler Type:</b> Acetate Sleeve	

Depth (ft bgs)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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0	0.5': Concrete.	AC							#3 Sand
	0.5': Well-graded GRAVEL with sand, 0.1" -0.4" gravel, coarse sand, very dark gray (10YR 3/1).	GW							
	1.0': Poorly-graded SAND, fine sand, trace gravel, dark grayish brown (2.5Y 4/2), moist, no odor.	SP							Hydrated #8 Bentonite
	2.0': Silty SAND, fine sand, dark brown (10YR 3/3), moist, no odor.	SM							Dry #8 Bentonite
						0.6	SVP-4-4.0		Vapor probe
									#3 Sand
5	5.0': End of Boring.				55				

### Well Construction Information

<b>Monument Type:</b> NA	<b>Filter Pack:</b> #3 Sand	<b>Ground Surface Elevation (ft):</b> NA
<b>Casing Diameter (in):</b> NA	<b>Surface Seal:</b> Sand	<b>Top of Casing Elevation (ft):</b> NA
<b>Screen Slot Size (in):</b> NA	<b>Annular Seal:</b> Bentonite	<b>Surveyed Location:</b> X: NA Y: NA
<b>Screened Interval (ft bgs):</b> NA	<b>Boring Abandonment:</b> NA	<b>Unique Well ID:</b> NA



# Log of Boring: SVP-5

<b>Client:</b> Prologis Inc	<b>Date/Time Started:</b> 3/4/2022	<b>Depth to Water ATD (ft bgs):</b> NE
<b>Project:</b> 5355 Airport Drive	<b>Date/Time Completed:</b> 3/4/2022	<b>Boring Diameter (in):</b> NA
<b>Location:</b> Ontario, California	<b>Drilling Company:</b> Millenium	<b>Total Boring Depth (ft bgs):</b> 10.5
<b>Farallon PN:</b> 1071-080	<b>Drilling Method:</b> Direct Push	<b>Constructed Well Depth (ft bgs):</b> NA
<b>Logged By:</b> Nate Montoy	<b>Drilling Equipment:</b> Geoprobe 7822DT	
<b>Reviewed By:</b> Kathy Lehnus	<b>Drilling Operator:</b> Andrew	
	<b>Sampler Type:</b> Acetate Sleeve	

Depth (ft bgs)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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0	0.67'	Concrete/Gravel Base.	AC						#3 Sand
	0.67'	Silty SAND, brown (10 YR 4/3), fine to medium sand, trace 0.1" gravel, moist, no odor.	SM						Hydrated #8 Bentonite
	4.0'	Poorly-graded SAND, medium sand, trace coarse sand and gravel, grayish brown (10YR 5/2), , moist, no odor.	SP		45	1.1			Dry #8 Bentonite
5	6.0'	Silty SAND, fine sand, trace 0.1" gravel, dark brown (10YR 4/3).	SM						Vapor probe
	10.0'	Poorly-graded SAND, coarse sand, 0.5" gravel.							#3 Sand
									Dry #8 Bentonite
									Hydrated #8 Bentonite
									Dry #8 Bentonite
10	10.0'	End of Boring.			55	1.0	SVP-5-10.0		Vapor probe
									#3 Sand

### Well Construction Information

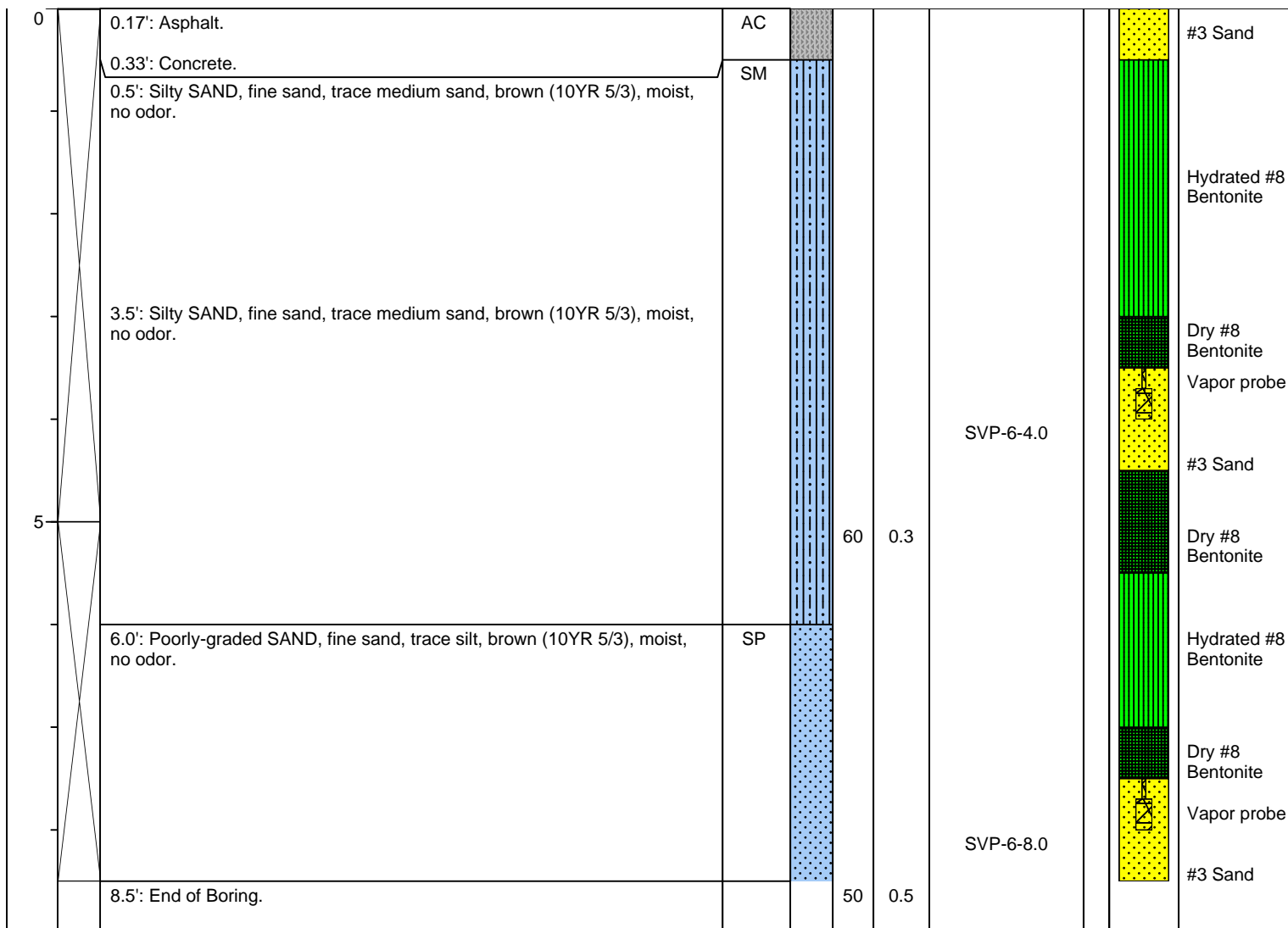
<b>Monument Type:</b> NA	<b>Filter Pack:</b> NA	<b>Ground Surface Elevation (ft):</b> NA
<b>Casing Diameter (in):</b> NA	<b>Surface Seal:</b> NA	<b>Top of Casing Elevation (ft):</b> NA
<b>Screen Slot Size (in):</b> NA	<b>Annular Seal:</b> NA	<b>Surveyed Location: X:</b> NA <b>Y:</b> NA
<b>Screened Interval (ft bgs):</b> NA	<b>Boring Abandonment:</b> NA	<b>Unique Well ID:</b> NA



# Log of Boring: SVP-6

<b>Client:</b> Prologis Inc	<b>Date/Time Started:</b> 3/4/2022	<b>Depth to Water ATD (ft bgs):</b> NE
<b>Project:</b> 5355 Airport Drive	<b>Date/Time Completed:</b> 3/4/2022	<b>Boring Diameter (in):</b> NA
<b>Location:</b> Ontario, California	<b>Drilling Company:</b> Millenium	<b>Total Boring Depth (ft bgs):</b> 8.5
<b>Farallon PN:</b> 1071-080	<b>Drilling Method:</b> Direct Push	<b>Constructed Well Depth (ft bgs):</b> NA
<b>Logged By:</b> Nate Montoy	<b>Drilling Equipment:</b> Geoprobe 7822DT	
<b>Reviewed By:</b> Kathy Lehnus	<b>Drilling Operator:</b> Andrew	
	<b>Sampler Type:</b> Acetate Sleeve	

Depth (ft bgs)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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### Well Construction Information

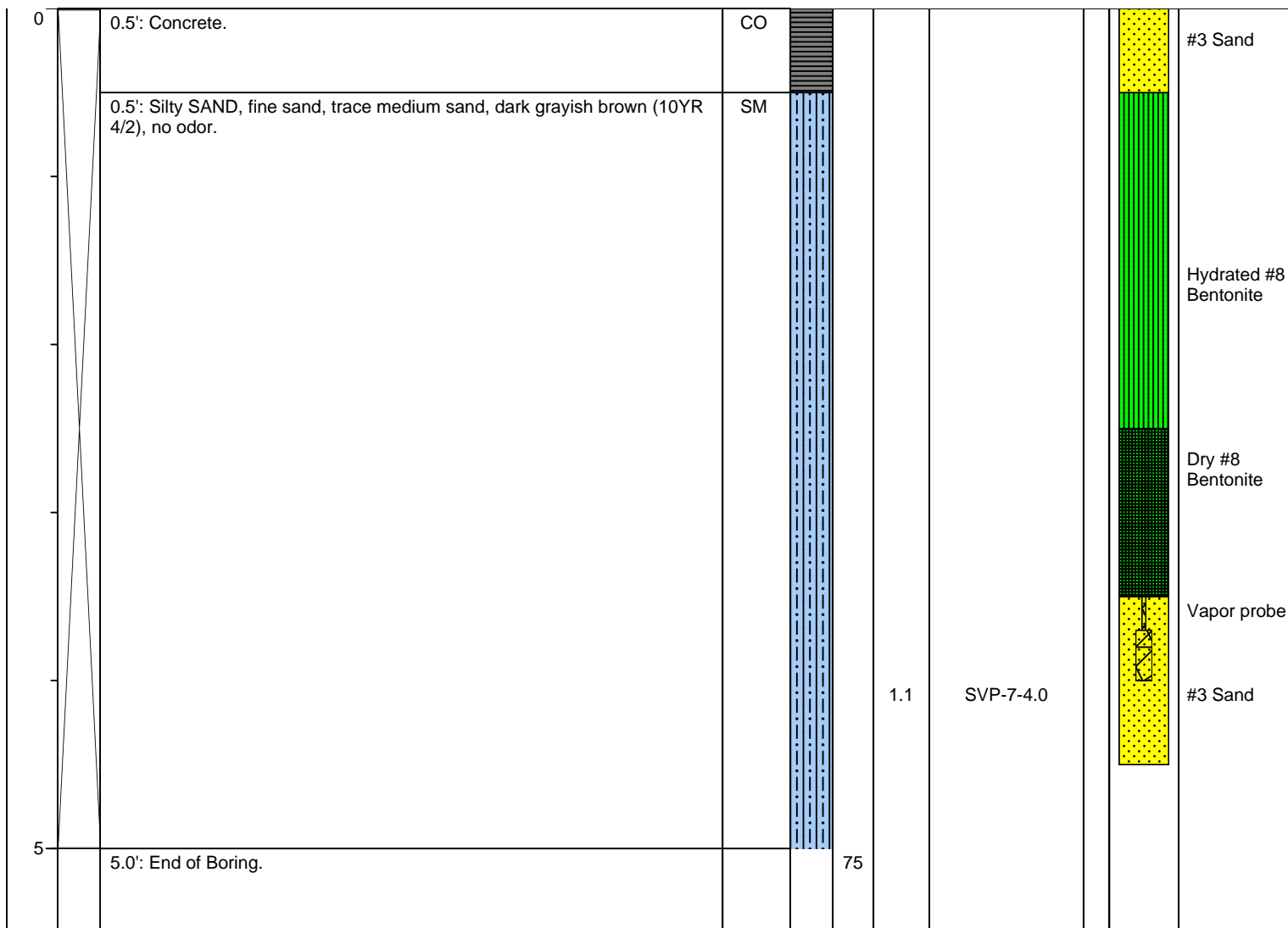
<b>Monument Type:</b>	NA	<b>Filter Pack:</b>	NA	<b>Ground Surface Elevation (ft):</b>	NA
<b>Casing Diameter (in):</b>	NA	<b>Surface Seal:</b>	NA	<b>Top of Casing Elevation (ft):</b>	NA
<b>Screen Slot Size (in):</b>	NA	<b>Annular Seal:</b>	NA	<b>Surveyed Location: X:</b>	NA
<b>Screened Interval (ft bgs):</b>	NA	<b>Boring Abandonment:</b>	NA	<b>Y:</b>	NA
				<b>Unique Well ID:</b>	NA



# Log of Boring: SVP-7

<b>Client:</b> Prologis Inc	<b>Date/Time Started:</b> 3/4/2022	<b>Depth to Water ATD (ft bgs):</b> NE
<b>Project:</b> 5355 Airport Drive	<b>Date/Time Completed:</b> 3/4/2022	<b>Boring Diameter (in):</b> NA
<b>Location:</b> Ontario, California	<b>Drilling Company:</b> Millenium	<b>Total Boring Depth (ft bgs):</b> 4.5
<b>Farallon PN:</b> 1071-080	<b>Drilling Method:</b> Direct Push	<b>Constructed Well Depth (ft bgs):</b> NA
<b>Logged By:</b> Nate Montoy	<b>Drilling Equipment:</b> Geoprobe 7822DT	
<b>Reviewed By:</b> Kathy Lehnus	<b>Drilling Operator:</b> Andrew	
	<b>Sampler Type:</b> Acetate Sleeve	

Depth (ft bgs)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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### Well Construction Information

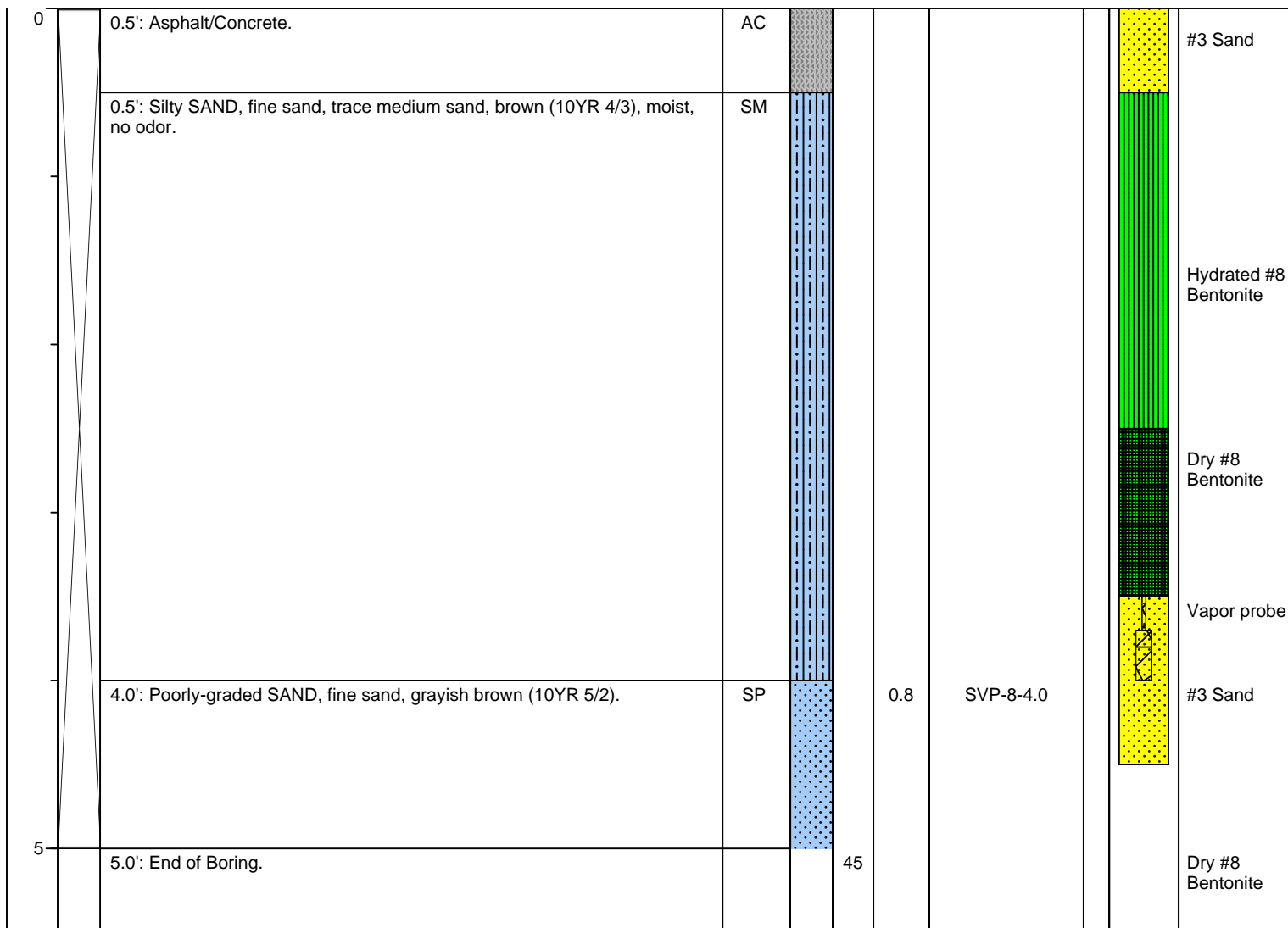
<b>Monument Type:</b> NA	<b>Filter Pack:</b> #3 Sand	<b>Ground Surface Elevation (ft):</b> NA
<b>Casing Diameter (in):</b> NA	<b>Surface Seal:</b> Sand	<b>Top of Casing Elevation (ft):</b> NA
<b>Screen Slot Size (in):</b> NA	<b>Annular Seal:</b> Bentonite	<b>Surveyed Location: X:</b> NA <b>Y:</b> NA
<b>Screened Interval (ft bgs):</b> NA	<b>Boring Abandonment:</b> NA	<b>Unique Well ID:</b> NA



# Log of Boring: SVP-8

<b>Client:</b> Prologis Inc	<b>Date/Time Started:</b> 3/4/2022	<b>Depth to Water ATD (ft bgs):</b> NE
<b>Project:</b> 5355 Airport Drive	<b>Date/Time Completed:</b> 3/4/2022	<b>Boring Diameter (in):</b> NA
<b>Location:</b> Ontario, California	<b>Drilling Company:</b> Millenium	<b>Total Boring Depth (ft bgs):</b> 4.5
<b>Farallon PN:</b> 1071-080	<b>Drilling Method:</b> Direct Push	<b>Constructed Well Depth (ft bgs):</b> NA
<b>Logged By:</b> Nate Montoy	<b>Drilling Equipment:</b> Geoprobe 7822DT	
<b>Reviewed By:</b> Kathy Lehnus	<b>Drilling Operator:</b> Andrew	
	<b>Sampler Type:</b> Acetate Sleeve	

Depth (ft bgs)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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### Well Construction Information

<b>Monument Type:</b> NA	<b>Filter Pack:</b> #3 Sand	<b>Ground Surface Elevation (ft):</b> NA
<b>Casing Diameter (in):</b> NA	<b>Surface Seal:</b> Sand	<b>Top of Casing Elevation (ft):</b> NA
<b>Screen Slot Size (in):</b> NA	<b>Annular Seal:</b> Bentonite	<b>Surveyed Location: X:</b> NA <b>Y:</b> NA
<b>Screened Interval (ft bgs):</b> NA	<b>Boring Abandonment:</b> NA	<b>Unique Well ID:</b> NA

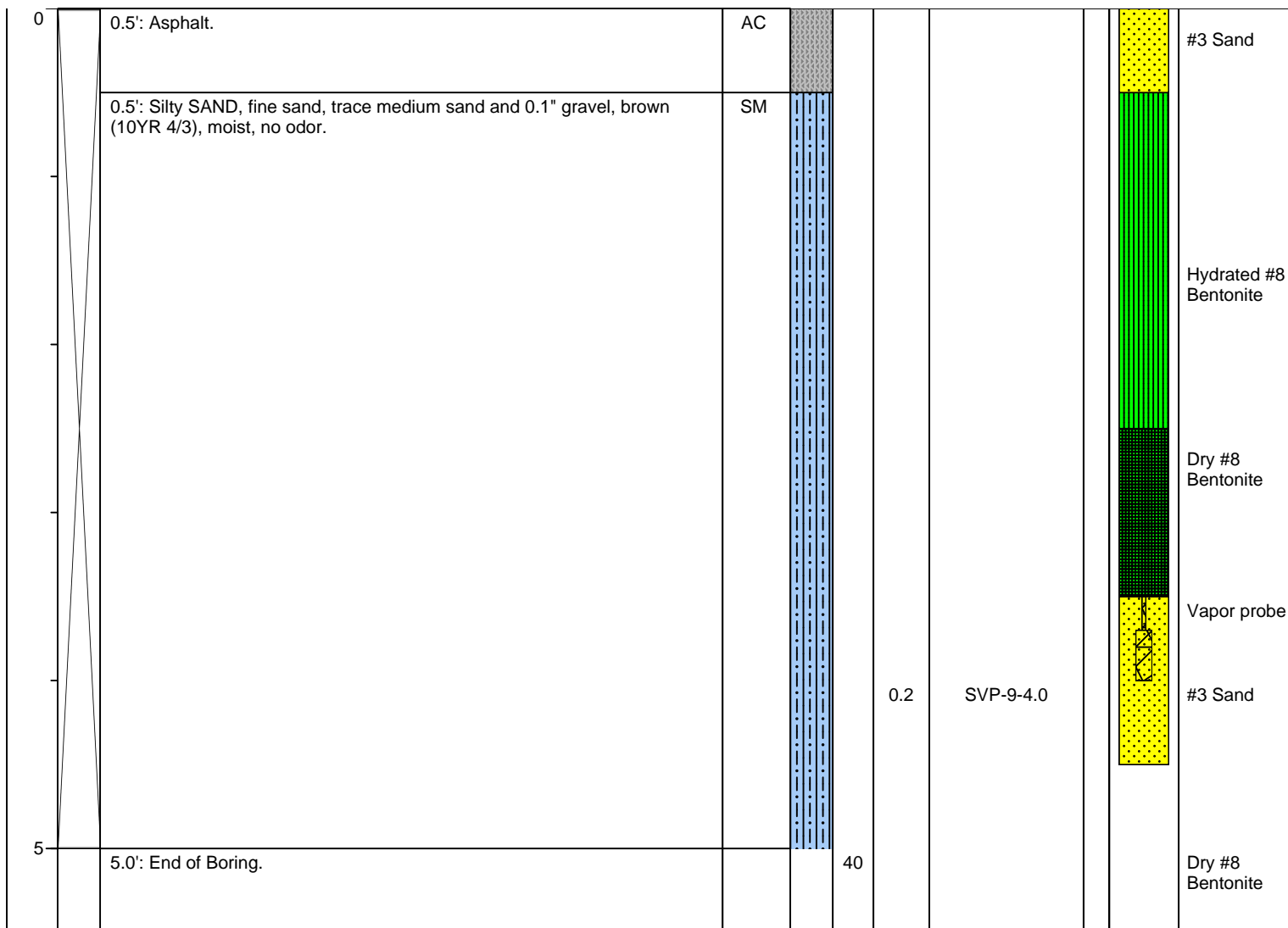




# Log of Boring: SVP-9

<b>Client:</b> Prologis Inc	<b>Date/Time Started:</b> 3/4/2022	<b>Depth to Water ATD (ft bgs):</b> NE
<b>Project:</b> 5355 Airport Drive	<b>Date/Time Completed:</b> 3/4/2022	<b>Boring Diameter (in):</b> NA
<b>Location:</b> Ontario, California	<b>Drilling Company:</b> Millenium	<b>Total Boring Depth (ft bgs):</b> 4.5
<b>Farallon PN:</b> 1071-080	<b>Drilling Method:</b> Direct Push	<b>Constructed Well Depth (ft bgs):</b> NA
<b>Logged By:</b> Nate Montoy	<b>Drilling Equipment:</b> Geoprobe 7822DT	
<b>Reviewed By:</b> Kathy Lehnus	<b>Drilling Operator:</b> Andrew	
	<b>Sampler Type:</b> Acetate Sleeve	

Depth (ft bgs)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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### Well Construction Information

<b>Monument Type:</b> NA	<b>Filter Pack:</b> #3 Sand	<b>Ground Surface Elevation (ft):</b> NA
<b>Casing Diameter (in):</b> NA	<b>Surface Seal:</b> Sand	<b>Top of Casing Elevation (ft):</b> NA
<b>Screen Slot Size (in):</b> NA	<b>Annular Seal:</b> Bentonite	<b>Surveyed Location: X:</b> NA <b>Y:</b> NA
<b>Screened Interval (ft bgs):</b> NA	<b>Boring Abandonment:</b> NA	<b>Unique Well ID:</b> NA



# Log of Boring: SVP-10

<b>Client:</b> Prologis Inc	<b>Date/Time Started:</b> 3/4/2022	<b>Depth to Water ATD (ft bgs):</b> NE
<b>Project:</b> 5355 Airport Drive	<b>Date/Time Completed:</b> 3/4/2022	<b>Boring Diameter (in):</b> NA
<b>Location:</b> Ontario, California	<b>Drilling Company:</b> Millenium	<b>Total Boring Depth (ft bgs):</b> 8.5
<b>Farallon PN:</b> 1071-080	<b>Drilling Method:</b> Direct Push	<b>Constructed Well Depth (ft bgs):</b> NA
<b>Logged By:</b> Nate Montoy	<b>Drilling Equipment:</b> Geoprobe 7822DT	
<b>Reviewed By:</b> Kathy Lehnus	<b>Drilling Operator:</b> Andrew	
	<b>Sampler Type:</b> Acetate Sleeve	

Depth (ft bgs)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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0	0.17'	Asphalt.	AC						
	0.17'	Silty SAND, fine sand, brown (10YR 5/3), moist, no odor.	SM						#3 Sand
									Hydrated #8 Bentonite
									Dry #8 Bentonite
									Vapor probe
							SVP-10-4.0		#3 Sand
									Dry #8 Bentonite
5					35	0.7			Hydrated #8 Bentonite
	6.0'	Silty SAND, fine sand, grayish brown (10YR 6/2), moist, no odor.	SM						Dry #8 Bentonite
									Vapor probe
							SVP-10-8.0		#3 Sand
									Dry #8 Bentonite
									Vapor probe
									#3 Sand
	8.5'	End of Boring.			35	0.5			

### Well Construction Information

<b>Monument Type:</b>	NA	<b>Filter Pack:</b>	NA	<b>Ground Surface Elevation (ft):</b>	NA
<b>Casing Diameter (in):</b>	NA	<b>Surface Seal:</b>	NA	<b>Top of Casing Elevation (ft):</b>	NA
<b>Screen Slot Size (in):</b>	NA	<b>Annular Seal:</b>	NA	<b>Surveyed Location: X:</b>	NA
<b>Screened Interval (ft bgs):</b>	NA	<b>Boring Abandonment:</b>	NA	<b>Surveyed Location: Y:</b>	NA
				<b>Unique Well ID:</b>	NA

**APPENDIX G**  
**LABORATORY ANALYTICAL REPORTS**

PHASE I/PHASE II  
ENVIRONMENTAL SITE ASSESSMENT REPORT  
5355 East Airport Drive  
Ontario, California

Farallon PN: 1071-080 (Task 2)



714-449-9937  
562-646-1611

11007 FOREST PLACE  
SANTA FE SPRINGS, CA 90670  
WWW.JONESENV.COM

## JONES ENVIRONMENTAL LABORATORY RESULTS

<b>Client:</b>	Farallon Consulting	<b>Report date:</b>	3/11/2022
<b>Client Address:</b>	27 Mauchly Suite 213 Irvine, CA	<b>Jones Ref. No.:</b>	G-0423
		<b>Client Ref. No.:</b>	1071-080-002
<b>Attn:</b>	Kathy Lehnus	<b>Date Sampled:</b>	3/11/2022
		<b>Date Received:</b>	3/11/2022
<b>Project:</b>	5355 E Airport Dr.	<b>Date Analyzed:</b>	3/11/2022
<b>Project Address:</b>	5355 E Airport Dr. Ontario, CA	<b>Physical State:</b>	Soil Gas

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### ANALYSES REQUESTED

1. EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sampling – Soil Gas samples were collected in glass gas-tight syringes equipped with Teflon plungers.

A tracer gas mixture of n-pentane, n-hexane, and n-heptane was placed at the tubing-surface interface before sampling. These compounds were analyzed during the 8260B analytical run to determine if there were surface leaks into the subsurface due to improper installation of the probe. No tracer was detected in any of the samples reported herein.

The sampling rate was approximately 200 cc/min, except when noted differently on the chain of custody record, using a glass gas-tight syringe. Purging was completed using a pump set at approximately 200 cc/min, except when noted differently on the chain of custody record. A default of 3 purge volumes was used as recommended by July 2015 DTSC/RWQCB guidance documents.

Prior to purging and sampling of soil gas at each point, a shut-in test was conducted to check for leaks in the above ground fittings. The shut-in test was performed on the above ground apparatus by evacuating the line to a vacuum of 100 inches of water, sealing the entire system and watching the vacuum for at least one minute. A vacuum gauge attached in parallel to the apparatus measured the vacuum. If there was any observable loss of vacuum, the fittings were adjusted as needed until the vacuum did not change noticeably. The soil gas sample was then taken.

No flow conditions occur when a sampling rate greater than 10 mL/min cannot be maintained without applying a vacuum greater than 100 inches of water to the sampling train. The sampling train is left at a vacuum for no less than three minutes. If the vacuum does not subside appreciably after three minutes, the sample location is determined to be a no flow sample.

Analytical – Soil Gas samples were analyzed using EPA Method 8260 that includes extra compounds required by DTSC/RWQCB (such as Freon 113). Instrument Continuing Calibration Verification, QC Reference Standards, Instrument Blanks and Sampling Blanks were analyzed every 12 hours as prescribed by the method. In addition, a Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) were analyzed with each batch of Soil Gas samples. A duplicate/replicate sample was analyzed each day of the sampling activity. All samples were injected into the GC/MS system within 30 minutes of collection.

Approval: \_\_\_\_\_

Annalise O'Toole  
Mobile Lab Manager



714-449-9937  
562-646-1611

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SANTA FE SPRINGS, CA 90670  
WWW.JONESENV.COM

### JONES ENVIRONMENTAL LABORATORY RESULTS

**Client:** Farallon Consulting  
**Client Address:** 27 Mauchly Suite 213  
Irvine, CA

**Report date:** 3/11/2022  
**Jones Ref. No.:** G-0423  
**Client Ref. No.:** 1071-080-002

**Attn:** Kathy Lehnus

**Date Sampled:** 3/11/2022

**Date Received:** 3/11/2022

**Project:** 5355 E Airport Dr.  
**Project Address:** 5355 E Airport Dr.  
Ontario, CA

**Date Analyzed:** 3/11/2022

**Physical State:** Soil Gas

#### EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SVP-2-4'	SVP-1-4'	SVP-1-10'	SVP-4-4'	SVP-3-4'		
<u>Jones ID:</u>	G-0423-01	G-0423-02	G-0423-03	G-0423-04	G-0423-05	<u>Reporting Limit</u>	<u>Units</u>
<b>Analytes:</b>							
Benzene	ND	ND	ND	ND	ND	20	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	20	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	20	µg/m3
Bromoform	ND	ND	ND	ND	ND	20	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	30	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	30	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	30	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	20	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	20	µg/m3
Chloroform	ND	ND	ND	ND	ND	20	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	30	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	30	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	20	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	20	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	40	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	40	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	40	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	40	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	20	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	20	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	20	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	40	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	25	µg/m3

**JONES ENVIRONMENTAL LABORATORY RESULTS**

**EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics**

<b>Sample ID:</b>	<b>SVP-2-4'</b>	<b>SVP-1-4'</b>	<b>SVP-1-10'</b>	<b>SVP-4-4'</b>	<b>SVP-3-4'</b>		
<b>Jones ID:</b>	<b>G-0423-01</b>	<b>G-0423-02</b>	<b>G-0423-03</b>	<b>G-0423-04</b>	<b>G-0423-05</b>	<b>Reporting Limit</b>	<b>Units</b>
<b>Analytes:</b>							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	20	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	20	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Freon 113	ND	ND	ND	ND	ND	40	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	60	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	20	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	20	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	20	µg/m3
Naphthalene	ND	ND	ND	ND	ND	100	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Styrene	ND	ND	ND	ND	ND	20	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	40	µg/m3
Tetrachloroethene	<b>27</b>	<b>31</b>	<b>157</b>	<b>62</b>	ND	20	µg/m3
Toluene	<b>34</b>	<b>21</b>	<b>21</b>	<b>80</b>	<b>78</b>	20	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	40	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	40	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	20	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	20	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	40	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	20	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	20	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	40	µg/m3
o-Xylene	ND	ND	ND	ND	ND	20	µg/m3
MTBE	ND	ND	ND	ND	ND	100	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	100	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	100	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	100	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	1000	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	ND	5000	µg/m3
<b>Tracer:</b>							
n-Pentane	ND	ND	ND	ND	ND	200	µg/m3
n-Hexane	ND	ND	ND	ND	ND	200	µg/m3
n-Heptane	ND	ND	ND	ND	ND	200	µg/m3
<b>Dilution Factor</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>		
<b>Surrogate Recoveries:</b>						<b>QC Limits</b>	
Dibromofluoromethane	98%	102%	100%	99%	101%	60 - 140	
Toluene-d8	101%	99%	100%	99%	100%	60 - 140	
4-Bromofluorobenzene	96%	97%	98%	95%	98%	60 - 140	
<b>Batch ID:</b>	<b>G1-031122-01</b>	<b>G1-031122-01</b>	<b>G1-031122-01</b>	<b>G1-031122-01</b>	<b>G1-031122-01</b>		

ND = Value below reporting limit



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### JONES ENVIRONMENTAL LABORATORY RESULTS

**Client:** Farallon Consulting  
**Client Address:** 27 Mauchly Suite 213  
Irvine, CA

**Report date:** 3/11/2022  
**Jones Ref. No.:** G-0423  
**Client Ref. No.:** 1071-080-002

**Attn:** Kathy Lehnus

**Date Sampled:** 3/11/2022  
**Date Received:** 3/11/2022

**Project:** 5355 E Airport Dr.  
**Project Address:** 5355 E Airport Dr.  
Ontario, CA

**Date Analyzed:** 3/11/2022  
**Physical State:** Soil Gas

#### EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SVP-3-4' REP	SVP-5-4'	SVP-5-10'	SVP-7-4'	SVP-9-4'		
<u>Jones ID:</u>	G-0423-06	G-0423-07	G-0423-08	G-0423-09	G-0423-10	<u>Reporting Limit</u>	<u>Units</u>
<b>Analytes:</b>							
Benzene	ND	ND	ND	ND	ND	20	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	20	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	20	µg/m3
Bromoform	ND	ND	ND	ND	ND	20	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	30	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	30	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	30	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	20	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	20	µg/m3
Chloroform	ND	ND	ND	ND	ND	20	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	30	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	30	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	20	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	20	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	40	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	40	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	40	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	40	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	20	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	20	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	20	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	40	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	25	µg/m3

**JONES ENVIRONMENTAL LABORATORY RESULTS**

**EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics**

<u>Sample ID:</u>	SVP-3-4' REP	SVP-5-4'	SVP-5-10'	SVP-7-4'	SVP-9-4'		
<u>Jones ID:</u>	G-0423-06	G-0423-07	G-0423-08	G-0423-09	G-0423-10	<u>Reporting Limit</u>	<u>Units</u>
<b>Analytes:</b>							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	20	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	20	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Freon 113	ND	ND	ND	ND	ND	40	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	60	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	20	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	20	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	20	µg/m3
Naphthalene	ND	ND	ND	ND	ND	100	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Styrene	ND	ND	ND	ND	ND	20	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	40	µg/m3
Tetrachloroethene	ND	<b>70</b>	<b>234</b>	<b>247</b>	<b>24</b>	20	µg/m3
Toluene	<b>45</b>	<b>83</b>	ND	<b>91</b>	<b>87</b>	20	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	40	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	40	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	20	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	20	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	40	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	20	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	20	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	40	µg/m3
o-Xylene	ND	ND	ND	ND	ND	20	µg/m3
MTBE	ND	ND	ND	ND	ND	100	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	100	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	100	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	100	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	1000	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	ND	5000	µg/m3
<b>Tracer:</b>							
n-Pentane	ND	ND	ND	ND	ND	200	µg/m3
n-Hexane	ND	ND	ND	ND	ND	200	µg/m3
n-Heptane	ND	ND	ND	ND	ND	200	µg/m3
<u>Dilution Factor</u>	1	1	1	1	1		
<b>Surrogate Recoveries:</b>						<b>QC Limits</b>	
Dibromofluoromethane	102%	101%	103%	100%	105%	60 - 140	
Toluene-d8	99%	97%	99%	98%	98%	60 - 140	
4-Bromofluorobenzene	98%	98%	97%	97%	95%	60 - 140	
<u>Batch ID:</u>	G1-031122- 01	G1-031122- 01	G1-031122- 01	G1-031122- 01	G1-031122- 01		

ND = Value below reporting limit





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**JONES ENVIRONMENTAL LABORATORY RESULTS**

**Client:** Farallon Consulting  
**Client Address:** 27 Mauchly Suite 213  
Irvine, CA

**Report date:** 3/11/2022  
**Jones Ref. No.:** G-0423  
**Client Ref. No.:** 1071-080-002

**Attn:** Kathy Lehnus

**Date Sampled:** 3/11/2022  
**Date Received:** 3/11/2022

**Project:** 5355 E Airport Dr.  
**Project Address:** 5355 E Airport Dr.  
Ontario, CA

**Date Analyzed:** 3/11/2022  
**Physical State:** Soil Gas

**EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics**

<u>Sample ID:</u>	SVP-8-4'	SVP-6-4'	SVP-6-8'	SVP-10-4'	SVP-10-8'		
<u>Jones ID:</u>	G-0423-11	G-0423-12	G-0423-13	G-0423-14	G-0423-15	<u>Reporting Limit</u>	<u>Units</u>
<b>Analytes:</b>							
Benzene	ND	ND	ND	ND	ND	20	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	20	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	20	µg/m3
Bromoform	ND	ND	ND	ND	ND	20	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	30	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	30	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	30	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	20	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	20	µg/m3
Chloroform	ND	ND	ND	ND	ND	20	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	30	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	30	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	20	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	20	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	40	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	40	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	40	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	<b>60</b>	40	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	20	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	20	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	20	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	20	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	40	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	25	µg/m3

**JONES ENVIRONMENTAL LABORATORY RESULTS**

**EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics**

<b>Sample ID:</b>	<b>SVP-8-4'</b>	<b>SVP-6-4'</b>	<b>SVP-6-8'</b>	<b>SVP-10-4'</b>	<b>SVP-10-8'</b>		
<b>Jones ID:</b>	<b>G-0423-11</b>	<b>G-0423-12</b>	<b>G-0423-13</b>	<b>G-0423-14</b>	<b>G-0423-15</b>	<b>Reporting Limit</b>	<b>Units</b>
<b>Analytes:</b>							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	20	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	20	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Freon 113	ND	ND	ND	ND	ND	40	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	60	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	20	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	20	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	20	µg/m3
Naphthalene	ND	ND	ND	ND	ND	100	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Styrene	ND	ND	ND	ND	ND	20	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	40	µg/m3
Tetrachloroethene	<b>232</b>	<b>97</b>	<b>34</b>	<b>31</b>	<b>63</b>	20	µg/m3
Toluene	<b>89</b>	<b>106</b>	<b>65</b>	<b>60</b>	<b>47</b>	20	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	40	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	40	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	20	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	20	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	20	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	40	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	20	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	20	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	20	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	20	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	40	µg/m3
o-Xylene	ND	ND	ND	ND	ND	20	µg/m3
MTBE	ND	ND	ND	ND	ND	100	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	100	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	100	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	100	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	1000	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	ND	5000	µg/m3
<b>Tracer:</b>							
n-Pentane	ND	ND	ND	ND	ND	200	µg/m3
n-Hexane	ND	ND	ND	ND	ND	200	µg/m3
n-Heptane	ND	ND	ND	ND	ND	200	µg/m3
<b>Dilution Factor</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>		
<b>Surrogate Recoveries:</b>						<b>QC Limits</b>	
Dibromofluoromethane	103%	105%	105%	105%	103%	60 - 140	
Toluene-d8	98%	100%	98%	97%	97%	60 - 140	
4-Bromofluorobenzene	96%	97%	96%	97%	97%	60 - 140	
<b>Batch ID:</b>	<b>G1-031122-01</b>	<b>G1-031122-01</b>	<b>G1-031122-01</b>	<b>G1-031122-01</b>	<b>G1-031122-01</b>		

ND = Value below reporting limit



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### JONES ENVIRONMENTAL LABORATORY RESULTS

**Client:** Farallon Consulting  
**Client Address:** 27 Mauchly Suite 213  
Irvine, CA

**Report date:** 3/11/2022  
**Jones Ref. No.:** G-0423  
**Client Ref. No.:** 1071-080-002

**Attn:** Kathy Lehnus

**Date Sampled:** 3/11/2022  
**Date Received:** 3/11/2022

**Project:** 5355 E Airport Dr.  
**Project Address:** 5355 E Airport Dr.  
Ontario, CA

**Date Analyzed:** 3/11/2022  
**Physical State:** Soil Gas

#### EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SVP-4-4' REP	SS-1	SS-2		
<u>Jones ID:</u>	G-0423-16	G-0423-17	G-0423-18	<u>Reporting Limit</u>	<u>Units</u>
<b>Analytes:</b>					
Benzene	ND	ND	ND	20	µg/m3
Bromobenzene	ND	ND	ND	20	µg/m3
Bromodichloromethane	ND	ND	ND	20	µg/m3
Bromoform	ND	ND	ND	20	µg/m3
n-Butylbenzene	ND	ND	ND	30	µg/m3
sec-Butylbenzene	ND	ND	ND	30	µg/m3
tert-Butylbenzene	ND	ND	ND	30	µg/m3
Carbon tetrachloride	ND	ND	ND	20	µg/m3
Chlorobenzene	ND	ND	ND	20	µg/m3
Chloroform	ND	ND	ND	20	µg/m3
2-Chlorotoluene	ND	ND	ND	30	µg/m3
4-Chlorotoluene	ND	ND	ND	30	µg/m3
Dibromochloromethane	ND	ND	ND	20	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	20	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	20	µg/m3
Dibromomethane	ND	ND	ND	20	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	40	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	40	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	40	µg/m3
Dichlorodifluoromethane	ND	ND	ND	40	µg/m3
1,1-Dichloroethane	ND	ND	ND	20	µg/m3
1,2-Dichloroethane	ND	ND	ND	20	µg/m3
1,1-Dichloroethene	ND	ND	ND	20	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	20	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	20	µg/m3
1,2-Dichloropropane	ND	ND	ND	20	µg/m3
1,3-Dichloropropane	ND	ND	ND	20	µg/m3
2,2-Dichloropropane	ND	ND	ND	40	µg/m3
1,1-Dichloropropene	ND	ND	ND	25	µg/m3

**JONES ENVIRONMENTAL LABORATORY RESULTS**

**EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics**

<u>Sample ID:</u>	SVP-4-4' REP	SS-1	SS-2		
<u>Jones ID:</u>	G-0423-16	G-0423-17	G-0423-18	<u>Reporting Limit</u>	<u>Units</u>
<b>Analytes:</b>					
cis-1,3-Dichloropropene	ND	ND	ND	20	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	20	µg/m3
Ethylbenzene	ND	ND	ND	20	µg/m3
Freon 113	ND	ND	ND	40	µg/m3
Hexachlorobutadiene	ND	ND	ND	60	µg/m3
Isopropylbenzene	ND	ND	ND	20	µg/m3
4-Isopropyltoluene	ND	ND	ND	20	µg/m3
Methylene chloride	ND	ND	ND	20	µg/m3
Naphthalene	ND	ND	ND	100	µg/m3
n-Propylbenzene	ND	ND	ND	20	µg/m3
Styrene	ND	ND	ND	20	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	20	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	40	µg/m3
Tetrachloroethene	<b>57</b>	<b>220</b>	<b>194</b>	20	µg/m3
Toluene	<b>46</b>	ND	ND	20	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	40	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	40	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	20	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	20	µg/m3
Trichloroethene	ND	ND	ND	20	µg/m3
Trichlorofluoromethane	ND	ND	ND	40	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	20	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	20	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	20	µg/m3
Vinyl chloride	ND	ND	ND	20	µg/m3
m,p-Xylene	ND	ND	ND	40	µg/m3
o-Xylene	ND	ND	ND	20	µg/m3
MTBE	ND	ND	ND	100	µg/m3
Ethyl-tert-butylether	ND	ND	ND	100	µg/m3
Di-isopropylether	ND	ND	ND	100	µg/m3
tert-amylmethylether	ND	ND	ND	100	µg/m3
tert-Butylalcohol	ND	ND	ND	1000	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	5000	µg/m3
<b>Tracer:</b>					
n-Pentane	ND	ND	ND	200	µg/m3
n-Hexane	ND	ND	ND	200	µg/m3
n-Heptane	ND	ND	ND	200	µg/m3
<u>Dilution Factor</u>	1	1	1		
<b>Surrogate Recoveries:</b>				<b>QC Limits</b>	
Dibromofluoromethane	101%	106%	105%	60 - 140	
Toluene-d8	98%	99%	95%	60 - 140	
4-Bromofluorobenzene	96%	98%	95%	60 - 140	
<u>Batch ID:</u>	G1-031122- 01	G1-031122- 01	G1-031122- 01		

ND = Value below reporting limit



714-449-9937  
562-646-1611

11007 FOREST PLACE  
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**JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION**

**Client:** Farallon Consulting  
**Client Address:** 27 Mauchly Suite 213  
Irvine, CA

**Report date:** 3/11/2022  
**Jones Ref. No.:** G-0423  
**Client Ref. No.:** 1071-080-002

**Attn:** Kathy Lehnus

**Date Sampled:** 3/11/2022  
**Date Received:** 3/11/2022

**Project:** 5355 E Airport Dr.  
**Project Address:** 5355 E Airport Dr.  
Ontario, CA

**Date Analyzed:** 3/11/2022  
**Physical State:** Soil Gas

**EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics**

<u>Sample ID:</u>	<b>METHOD</b>	<b>SAMPLING</b>		
	<b>BLANK</b>	<b>BLANK</b>		
	<b>031122- G1MB1</b>	<b>031122- G1SB1</b>	<u>Reporting Limit</u>	<u>Units</u>
<b>Analytes:</b>				
Benzene	ND	ND	20	µg/m3
Bromobenzene	ND	ND	20	µg/m3
Bromodichloromethane	ND	ND	20	µg/m3
Bromoform	ND	ND	20	µg/m3
n-Butylbenzene	ND	ND	30	µg/m3
sec-Butylbenzene	ND	ND	30	µg/m3
tert-Butylbenzene	ND	ND	30	µg/m3
Carbon tetrachloride	ND	ND	20	µg/m3
Chlorobenzene	ND	ND	20	µg/m3
Chloroform	ND	ND	20	µg/m3
2-Chlorotoluene	ND	ND	30	µg/m3
4-Chlorotoluene	ND	ND	30	µg/m3
Dibromochloromethane	ND	ND	20	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	20	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	20	µg/m3
Dibromomethane	ND	ND	20	µg/m3
1,2- Dichlorobenzene	ND	ND	40	µg/m3
1,3-Dichlorobenzene	ND	ND	40	µg/m3
1,4-Dichlorobenzene	ND	ND	40	µg/m3
Dichlorodifluoromethane	ND	ND	40	µg/m3
1,1-Dichloroethane	ND	ND	20	µg/m3
1,2-Dichloroethane	ND	ND	20	µg/m3
1,1-Dichloroethene	ND	ND	20	µg/m3
cis-1,2-Dichloroethene	ND	ND	20	µg/m3
trans-1,2-Dichloroethene	ND	ND	20	µg/m3
1,2-Dichloropropane	ND	ND	20	µg/m3
1,3-Dichloropropane	ND	ND	20	µg/m3
2,2-Dichloropropane	ND	ND	40	µg/m3
1,1-Dichloropropene	ND	ND	25	µg/m3

**JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION**

**EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics**

<b><u>Sample ID:</u></b>	<b>METHOD</b>	<b>SAMPLING</b>		
	<b>BLANK</b>	<b>BLANK</b>		
<b><u>Jones ID:</u></b>	<b>031122- G1MB1</b>	<b>031122- G1SB1</b>	<b><u>Reporting Limit</u></b>	<b><u>Units</u></b>
<b>Analytes:</b>				
cis-1,3-Dichloropropene	ND	ND	20	µg/m3
trans-1,3-Dichloropropene	ND	ND	20	µg/m3
Ethylbenzene	ND	ND	20	µg/m3
Freon 113	ND	ND	40	µg/m3
Hexachlorobutadiene	ND	ND	60	µg/m3
Isopropylbenzene	ND	ND	20	µg/m3
4-Isopropyltoluene	ND	ND	20	µg/m3
Methylene chloride	ND	ND	20	µg/m3
Naphthalene	ND	ND	100	µg/m3
n-Propylbenzene	ND	ND	20	µg/m3
Styrene	ND	ND	20	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	20	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	40	µg/m3
Tetrachloroethene	ND	ND	20	µg/m3
Toluene	ND	ND	20	µg/m3
1,2,3-Trichlorobenzene	ND	ND	40	µg/m3
1,2,4-Trichlorobenzene	ND	ND	40	µg/m3
1,1,1-Trichloroethane	ND	ND	20	µg/m3
1,1,2-Trichloroethane	ND	ND	20	µg/m3
Trichloroethene	ND	ND	20	µg/m3
Trichlorofluoromethane	ND	ND	40	µg/m3
1,2,3-Trichloropropane	ND	ND	20	µg/m3
1,2,4-Trimethylbenzene	ND	ND	20	µg/m3
1,3,5-Trimethylbenzene	ND	ND	20	µg/m3
Vinyl chloride	ND	ND	20	µg/m3
m,p-Xylene	ND	ND	40	µg/m3
o-Xylene	ND	ND	20	µg/m3
MTBE	ND	ND	100	µg/m3
Ethyl-tert-butylether	ND	ND	100	µg/m3
Di-isopropylether	ND	ND	100	µg/m3
tert-amylmethylether	ND	ND	100	µg/m3
tert-Butylalcohol	ND	ND	1000	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	5000	µg/m3
<b>Tracer:</b>				
n-Pentane	ND	ND	200	µg/m3
n-Hexane	ND	ND	200	µg/m3
n-Heptane	ND	ND	200	µg/m3
<b><u>Dilution Factor</u></b>	1	1		
<b><u>Surrogate Recoveries:</u></b>			<b><u>QC Limits</u></b>	
Dibromofluoromethane	98%	97%	60 - 140	
Toluene-d8	100%	99%	60 - 140	
4-Bromofluorobenzene	100%	100%	60 - 140	
<b><u>Batch ID:</u></b>	G1-031122- 01	G1-031122- 01		

ND = Value below reporting limit



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562-646-1611

11007 FOREST PLACE  
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**JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION**

**Client:** Farallon Consulting  
**Client Address:** 27 Mauchly Suite 213  
Irvine, CA

**Report date:** 3/11/2022  
**Jones Ref. No.:** G-0423  
**Client Ref. No.:** 1071-080-002

**Attn:** Kathy Lehnus

**Date Sampled:** 3/11/2022  
**Date Received:** 3/11/2022

**Project:** 5355 E Airport Dr.  
**Project Address:** 5355 E Airport Dr.  
Ontario, CA

**Date Analyzed:** 3/11/2022  
**Physical State:** Soil Gas

**EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics**

**Batch ID:** G1-031122-01

**Jones ID:**                   **031122-G1LCS1**      **031122-G1LCSD1**                    **031122-G1CCV1**

<u>Parameter</u>	LCS Recovery (%)	LCSD Recovery (%)	<u>RPD</u>	Acceptability Range (%)	<u>CCV</u>	Acceptability Range (%)
Vinyl chloride	84%	75%	11.1%	60 - 140	79% <sup>1</sup>	80 - 120
1,1-Dichloroethene	97%	90%	7.3%	60 - 140	90%	80 - 120
Cis-1,2-Dichloroethene	107%	93%	13.6%	70 - 130	98%	80 - 120
1,1,1-Trichloroethane	102%	90%	12.1%	70 - 130	96%	80 - 120
Benzene	97%	90%	7.2%	70 - 130	99%	80 - 120
Trichloroethene	123%	121%	1.6%	70 - 130	107%	80 - 120
Toluene	108%	103%	4.9%	70 - 130	102%	80 - 120
Tetrachloroethene	105%	107%	2.3%	70 - 130	103%	80 - 120
Chlorobenzene	118%	112%	4.9%	70 - 130	103%	80 - 120
Ethylbenzene	102%	95%	6.9%	70 - 130	99%	80 - 120
1,2,4 Trimethylbenzene	88%	86%	1.8%	70 - 130	81%	80 - 120
Gasoline Range Organics (C4-C12)	99%	94%	5.3%	70 - 130	95%	80 - 120

**Surrogate Recovery:**

Dibromofluoromethane	106%	104%		60 - 140	97%	60 - 140
Toluene-d <sub>8</sub>	99%	100%		60 - 140	101%	60 - 140
4-Bromofluorobenzene	96%	100%		60 - 140	102%	60 - 140

<sup>1</sup>Recovery outside of acceptable limits. LCS/LCSD recoveries and RPD were within QC limits, therefore data was accepted.

LCS = Laboratory Control Sample

LCSD = Laboratory Control Sample Duplicate

CCV = Continuing Calibration Verification

RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 20%



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# Soil-Gas Chain-of-Custody Record

**Client**  
**Farallon Consulting**

**Project Name**  
**5355 E Airport Dr.**

**Project Address**  
**5355 E Airport Dr.**

**Ontario, CA**

**Email**

**Phone**

**Report To**  
**Kathy Lehnus**

**Sampler**  
**Madison Jones**

**Date**  
 3/11/2022

**Client Project #**  
 1071-080-002

**Purge Number:**  
 1P  3P  7P  10P

**Report Options**  
 EDD \_\_\_\_\_  
 EDF\* - 10% Surcharge \_\_\_\_\_

**Shut-In Test:**  Y /  N

**\*Global ID** \_\_\_\_\_

**Turn Around Requested**

Immediate Attention  
 Rush 24 Hours  
 Rush 48 Hours  
 Rush 72 Hours  
 Normal  
 Mobile Lab

**Tracer**

n-pentane  
 n-hexane  
 n-heptane  
 Isopropyl Alcohol  
 1,1-DFA  
 \_\_\_\_\_

**Analysis Requested**

Standard  Low Level\*  MDL\*  
 \*surcharge for these limits

**Units**  
 MGD/m<sup>3</sup>

**LAB USE ONLY**

**Jones Project #**  
**G-0423**

**Page**  
 1 of 2

**Sample Container:**  
 GASTIGHT GLASS SYRINGE

**Report To**  
 Kathy Lehnus

Sample ID	Purge Rate (mL/min)	Purge Number	Purge Volume (mL)	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample ID	Purge Rate (mL/min)	Pump Used	Magnehelic	Sample Matrix: Soil Gas (SG), Air (A), Material (M)	EPA 8260B (VOCs)	Gasoline Range Organics	Magnehelic Vacuum (In/H <sub>2</sub> O)	Number of Containers	Notes & Special Instructions
SVP-2-4'	200	3	1610	3/11/22	7:26	7:28	G-0423-01	200	GOOSE.5	M100.006	SG	X	X	<2	1	SVP-2
SVP-1-4'	200	3	1610	3/11/22	7:34	7:45	G-0423-02	200	JACKSON.1	M100.007	SG	X	X	<2	1	SVP-1
SVP-1-10'	200	3	1710	3/11/22	7:49	8:04	G-0423-03	200	GOOSE.5	M100.202	SG	X	X	<2	1	SVP-1
SVP-4-4'	200	3	1610	3/11/22	8:15	8:21	G-0423-04	200	JACKSON.1	M100.203	SG	X	X	<2	1	SVP-4
SVP-3-4'	200	3	1610	3/11/22	8:47	8:55	G-0423-05	200	GOOSE.5	M100.006	SG	X	X	<2	1	SVP-3
SVP-3-4'REP	-	-	-	3/11/22	8:57	9:15	G-0423-06	-	JACKSON.1	M100.006	SG	X	X	<2	1	SVP-3
SVP-5-4'	200	3	1610	3/11/22	9:30	9:33	G-0423-07	200	GOOSE.5	M100.007	SG	X	X	<2	1	SVP-5
SVP-5-10'	200	3	1710	3/11/22	9:52	10:08	G-0423-08	200	JACKSON.1	M100.202	SG	X	X	<2	1	SVP-5
SVP-7-4'	200	3	1610	3/11/22	10:18	10:26	G-0423-09	200	GOOSE.5	M100.203	SG	X	X	<2	1	SVP-7
SVP-9-4'	200	3	1610	3/11/22	10:32	10:44	G-0423-10	200	JACKSON.1	M100.006	SG	X	X	<2	1	SVP-9

**Representative Signature** **Printed Name** Nate Montoy

**Laboratory Signature** **Printed Name** Madison Jones

**Company** Farallon Consulting **Date** 3/11/2022 **Time** 13:40

**Company** JONES ENVIRONMENTAL, INC. **Date** 3/11/2022 **Time** 13:40

**Representative Signature** \_\_\_\_\_ **Printed Name** \_\_\_\_\_

**Laboratory Signature** \_\_\_\_\_ **Printed Name** \_\_\_\_\_

**Company** \_\_\_\_\_ **Date** \_\_\_\_\_ **Time** \_\_\_\_\_

**Company** \_\_\_\_\_ **Date** \_\_\_\_\_ **Time** \_\_\_\_\_

**10 Total Number of Containers**

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been requested, and the information provided herein is correct and accurate.





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# Soil-Gas Chain-of-Custody Record

**Client**  
Farallon Consulting

**Project Name**  
5355 E Airport Dr.

**Project Address**  
5355 E Airport Dr.

**Ontario, CA**

**Report To**  
Kathy Lehnus

**Sampler**  
Madison Jones

**Date**  
3/11/2022

**Purge Number:**  
 1P  3P  7P  10P

**Report Options**  
EDD \_\_\_\_\_  
EDF\* - 10% Surcharge \_\_\_\_\_  
\*Global ID \_\_\_\_\_

**Client Project #**  
1071-080-002

**Shut-In Test:** (Y) / N

**Turn Around Requested**  
 Immediate Attention  
 Rush 24 Hours  
 Rush 48 Hours  
 Rush 72 Hours  
 Normal  
 Mobile Lab

**Tracer**  
 n-pentane  
 n-hexane  
 n-heptane  
 Isopropyl Alcohol  
 1,1-DFA

**Analysis Requested**

**Reporting Limits**  
 Standard  Low Level\*  MDL\* **Units** mg/m<sup>3</sup>

**LAB USE ONLY**

**Jones Project #**  
G-0423

**Page** 2 **of** 2

**Sample Container:**  
GASTIGHT GLASS SYRINGE

**Report To**  
Kathy Lehnus

Sample ID	Purge Rate (mL/min)	Purge Volume (mL)	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample ID	Purge Rate (mL/min)	Pump Used	Magnehelic	Sample Matrix: Soil Gas (SG), Air (A), Material (M)	EPA 8260B (VOCs)	Gasoline Range Organics	Magnehelic Vacuum (In/H <sub>2</sub> O)	Number of Containers	Notes & Special Instructions
SVP-8-4' G-0423-11	200	300	3/11/22	10:55	11:05	G-0423-11	200	GOOSE.5	M100.007	SG	X	X	<2	1	SVP-8-4'
SVP-6-4' G-0423-12	200	300	3/11/22	11:15	11:23	G-0423-12	200	JACKSON.1	M100.202	SG	X	X	<2	1	SVP-6-4'
SVP-6-8' G-0423-13	200	300	3/11/22	11:39	11:42	G-0423-13	200	GOOSE.5	M100.203	SG	X	X	<2	1	SVP-6-8'
SVP-10-4' G-0423-14	200	300	3/11/22	11:48	11:58	G-0423-14	200	JACKSON.1	M100.006	SG	X	X	<2	1	SVP-10-4'
SVP-10-8' G-0423-15	200	300	3/11/22	12:14	12:17	G-0423-15	200	GOOSE.5	M100.007	SG	X	X	<2	1	SVP-10-8'
SVP-4-4'REP G-0423-16	-	-	3/11/22	8:32	8:39	G-0423-16	-	-	M100.007	SG	X	X	<2	1	SVP-4-4'REP
SS-1 G-0423-17	200	300	3/11/22	12:41	12:52	G-0423-17	200	HANDPURGE	M100.203	SG	X	X	<2	1	SS-1
SS-2 G-0423-18	200	300	3/11/22	12:55	13:10	G-0423-18	200	HANDPURGE	M100.203	SG	X	X	<2	1	SS-2

**Representative Signature** [Signature] **Printed Name** Nate Montoy **Date** 3/11/2022 **Time** 13:40

**Laboratory Signature** [Signature] **Printed Name** Madison Jones **Date** 3/11/2022 **Time** 13:40

**Company** Farallon Consulting

**Company** JONES ENVIRONMENTAL, INC.

**8** Total Number of Containers

**Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been requested, and the information provided herein is correct and accurate.**

**Item B - 2010 of 3096**



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**JONES ENVIRONMENTAL  
LABORATORY RESULTS**

**Client:** Farallon Consulting  
**Client Address:** 27 Mauchly, Suite 213  
Irvine, CA.

**Report date:** 3/11/2022  
**Jones Ref. No.:** ST-19272  
**Client Ref. No.:** 1071-080

**Attn:** Kathy Lehnus

**Date Sampled:** 3/4/2022  
**Date Received:** 3/4/2022

**Project:** 5355 Airport Drive  
**Project Address:** 5355 Airport Drive  
Ontario, CA 91761

**Date Analyzed:** 3/9/2022  
**Physical State:** Soil

---

**ANALYSES REQUESTED**

**Soil:**

1. EPA 8015M – Extended Range Hydrocarbons
2. EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics
3. EPA 6010B by 3050B and EPA 7471A – CAM 17 Metals

**Approval:** \_\_\_\_\_

*Juan Camacho*

Juan Camacho, M.S.  
Stationary Lab Technical Manager



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**JONES ENVIRONMENTAL  
LABORATORY RESULTS**

<b>Client:</b>	Farallon Consulting	<b>Report date:</b>	3/11/2022
<b>Client Address:</b>	27 Mauchly, Suite 213 Irvine, CA.	<b>Jones Ref. No.:</b>	ST-19272
<b>Attn:</b>	Kathy Lehnus	<b>Client Ref. No.:</b>	1071-080
<b>Project:</b>	5355 Airport Drive	<b>Date Sampled:</b>	3/4/2022
<b>Project Address:</b>	5355 Airport Drive Ontario, CA 91761	<b>Date Received:</b>	3/4/2022
		<b>Date Analyzed:</b>	3/9/2022
		<b>Physical State:</b>	Soil

**EPA 8015M - Extended Range Hydrocarbons**

<u>Sample ID:</u>	SVP-1-10'	SVP-5-10'	SVP-6-4'	SVP-6-8'	SVP-7-4'		
<u>Jones ID:</u>	ST-19272-01	ST-19272-05	ST-19272-06	ST-19272-07	ST-19272-08	<u>Reporting Limit</u>	<u>Units</u>
<b>Carbon Chain Range</b>							
C10 - C11	ND	ND	ND	ND	ND	1.0	mg/kg
C12 - C13	ND	ND	ND	ND	ND	1.0	mg/kg
C14 - C15	ND	ND	ND	ND	ND	1.0	mg/kg
C16 - C17	ND	ND	ND	ND	ND	1.0	mg/kg
C18 - C19	ND	ND	ND	ND	ND	1.0	mg/kg
C20 - C23	ND	ND	ND	ND	ND	1.0	mg/kg
C24 - C27	ND	ND	ND	ND	ND	1.0	mg/kg
C28 - C31	ND	ND	ND	ND	ND	1.0	mg/kg
C32 - C35	ND	ND	ND	ND	ND	1.0	mg/kg
C36 - C39	ND	ND	ND	ND	ND	1.0	mg/kg
C40 - C43	ND	ND	ND	ND	ND	1.0	mg/kg
C13 - C22	ND	ND	ND	ND	ND	10.0	mg/kg
C23 - C40	ND	ND	ND	ND	ND	10.0	mg/kg
<b><u>Dilution Factor</u></b>	1	1	1	1	1		
<b><u>Surrogate Recovery:</u></b>						<b><u>QC Limits</u></b>	
Hexacosane	115%	110%	93%	119%	101%	30 - 120	
<b><u>Batch:</u></b>	FID8_ 030922_01	FID8_ 030922_01	FID8_ 030922_01	FID8_ 030922_01	FID8_ 030922_01		

ND = Value less than reporting limit



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**JONES ENVIRONMENTAL  
LABORATORY RESULTS**

**Client:** Farallon Consulting  
**Client Address:** 27 Mauchly, Suite 213  
Irvine, CA.

**Report date:** 3/11/2022  
**Jones Ref. No.:** ST-19272  
**Client Ref. No.:** 1071-080

**Attn:** Kathy Lehnus

**Date Sampled:** 3/4/2022

**Project:** 5355 Airport Drive  
**Project Address:** 5355 Airport Drive  
Ontario, CA 91761

**Date Received:** 3/4/2022

**Date Analyzed:** 3/9/2022

**Physical State:** Soil

**EPA 8015M - Extended Range Hydrocarbons**

<u>Sample ID:</u>	SVP-8-4'	SVP-9-4'	SVP-10-8'	SB-1-10'	SB-2-10'		
<u>Jones ID:</u>	ST-19272-09	ST-19272-10	ST-19272-11	ST-19272-12	ST-19272-13	<u>Reporting Limit</u>	<u>Units</u>
<b>Carbon Chain Range</b>							
C10 - C11	ND	ND	ND	ND	ND	1.0	mg/kg
C12 - C13	ND	ND	ND	ND	ND	1.0	mg/kg
C14 - C15	ND	ND	ND	ND	ND	1.0	mg/kg
C16 - C17	ND	ND	ND	ND	ND	1.0	mg/kg
C18 - C19	ND	ND	ND	ND	ND	1.0	mg/kg
C20 - C23	ND	ND	ND	ND	ND	1.0	mg/kg
C24 - C27	ND	ND	ND	ND	ND	1.0	mg/kg
C28 - C31	ND	ND	ND	ND	ND	1.0	mg/kg
C32 - C35	ND	ND	ND	ND	ND	1.0	mg/kg
C36 - C39	ND	ND	ND	ND	ND	1.0	mg/kg
C40 - C43	ND	ND	ND	ND	ND	1.0	mg/kg
C13 - C22	ND	ND	ND	ND	ND	10.0	mg/kg
C23 - C40	ND	ND	ND	ND	ND	10.0	mg/kg
<b><u>Dilution Factor</u></b>	1	1	1	1	1		
<b><u>Surrogate Recovery:</u></b>						<b><u>QC Limits</u></b>	
Hexacosane	91%	114%	92%	115%	116%	30 - 120	
<b><u>Batch:</u></b>	FID8_ 030922_01	FID8_ 030922_01	FID8_ 030922_01	FID8_ 030922_01	FID8_ 030922_01		

ND = Value less than reporting limit



714-449-9937  
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11007 FOREST PLACE  
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**JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION**

**Client:** Farallon Consulting  
**Client Address:** 27 Mauchly, Suite 213  
Irvine, CA.

**Report date:** 3/11/2022  
**Jones Ref. No.:** ST-19272  
**Client Ref. No.:** 1071-080

**Attn:** Kathy Lehnus

**Date Sampled:** 3/4/2022  
**Date Received:** 3/4/2022

**Project:** 5355 Airport Drive  
**Project Address:** 5355 Airport Drive  
Ontario, CA 91761

**Date Analyzed:** 3/9/2022  
**Physical State:** Soil

**EPA 8015M - Extended Range Hydrocarbons**

<u>Sample ID:</u>	<u>METHOD</u>		
	<b>BLANK #1</b>		
<u>Jones ID:</u>	MB1-		
	030922FID8	<u>Reporting Limit</u>	<u>Units</u>
<b>Carbon Chain Range</b>			
C10 - C11	ND	1.0	mg/kg
C12 - C13	ND	1.0	mg/kg
C14 - C15	ND	1.0	mg/kg
C16 - C17	ND	1.0	mg/kg
C18 - C19	ND	1.0	mg/kg
C20 - C23	ND	1.0	mg/kg
C24 - C27	ND	1.0	mg/kg
C28 - C31	ND	1.0	mg/kg
C32 - C35	ND	1.0	mg/kg
C36 - C39	ND	1.0	mg/kg
C40 - C43	ND	1.0	mg/kg
C13 - C22	ND	10.0	mg/kg
C23 - C40	ND	10.0	mg/kg
<u>Dilution Factor</u>	1		
<u>Surrogate Recovery:</u>			<u>QC Limits</u>
Hexacosane	115%		30 - 120
<u>Batch:</u>	FID8_		
	030922_01		

ND = Value less than reporting limit



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**JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION**

**Client:** Farallon Consulting  
**Client Address:** 27 Mauchly, Suite 213  
Irvine, CA.

**Report date:** 3/11/2022  
**Jones Ref. No.:** ST-19272  
**Client Ref. No.:** 1071-080

**Attn:** Kathy Lehnus

**Date Sampled:** 3/4/2022  
**Date Received:** 3/4/2022

**Project:** 5355 Airport Drive  
**Project Address:** 5355 Airport Drive  
Ontario, CA 91761

**Date Analyzed:** 3/9/2022  
**Physical State:** Soil

**BATCH:** FID8\_030922\_01      **Prepared:** 3/9/2022      **Analyzed:** 3/9/2022

**EPA 8015M - Extended Range Hydrocarbons**

	Result	Spike Level	% Recovery	% RPD	% Recovery Limits	Units
<b>LCS:</b>	LCS1-030922FID8	<b>SAMPLE SPIKED:</b>	CLEAN SOIL			
<b>Analyte:</b>						
Diesel (C10 - C28)	495	500	99%		60 - 140	mg/kg
<b>Surrogate Recovery:</b>						
Hexacosane			113%		30 - 120	
<b>LCSD:</b>	LCSD1-030922FID8	<b>SAMPLE SPIKED:</b>	CLEAN SOIL			
<b>Analyte:</b>						
Diesel (C10 - C28)	495	500	99%	0%	60 - 140	mg/kg
<b>Surrogate Recoveries:</b>						
Hexacosane			119%		30 - 120	
<b>CCV:</b>	CCV1-030922FID8					
<b>Analyte:</b>						
Diesel (C10 - C28)	1190	1000	119%		80 - 120	mg/kg

LCS = Laboratory Control Sample  
LCSD= Laboratory Control Sample Duplicate  
CCV = Continuing Calibration Verification  
RPD = Relative Percent Difference



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**JONES ENVIRONMENTAL LABORATORY RESULTS**

**Client:** Farallon Consulting  
**Client Address:** 27 Mauchly, Suite 213  
Irvine, CA

**Report date:** 3/11/2022  
**Jones Ref. No.:** ST-19272  
**Client Ref. No.:** 1071-080

**Attn:** Kathy Lehnus

**Date Sampled:** 3/4/2022  
**Date Received:** 3/4/2022

**Project:** 5355 Airport Drive  
**Project Address:** 5355 Airport Drive  
Ontario, CA 91761

**Date Analyzed:** 3/8/2022  
**Physical State:** Soil

**EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics**

<u>Sample ID:</u>	SVP-1-10'	SVP-2-4'	SVP-3-4'	SVP-4-4'	SVP-5-10'		
<u>Jones ID:</u>	ST-19272-01	ST-19272-02	ST-19272-03	ST-19272-04	ST-19272-05	<u>Reporting Limit</u>	<u>Units</u>
<b>Analytes:</b>							
Benzene	ND	ND	ND	ND	ND	1.0	µg/kg
Bromobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Bromodichloromethane	ND	ND	ND	ND	ND	1.0	µg/kg
Bromoform	ND	ND	ND	ND	ND	1.0	µg/kg
n-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
sec-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
tert-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Carbon tetrachloride	ND	ND	ND	ND	ND	1.0	µg/kg
Chlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Chloroform	ND	ND	ND	ND	ND	1.0	µg/kg
2-Chlorotoluene	ND	ND	ND	ND	ND	1.0	µg/kg
4-Chlorotoluene	ND	ND	ND	ND	ND	1.0	µg/kg
Dibromochloromethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	1.0	µg/kg
Dibromomethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,3-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
2,2-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg

# JONES ENVIRONMENTAL LABORATORY RESULTS

## EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<b>Sample ID:</b>	<b>SVP-1-10'</b>	<b>SVP-2-4'</b>	<b>SVP-3-4'</b>	<b>SVP-4-4'</b>	<b>SVP-5-10'</b>		
<b>Jones ID:</b>	<b>ST-19272-01</b>	<b>ST-19272-02</b>	<b>ST-19272-03</b>	<b>ST-19272-04</b>	<b>ST-19272-05</b>	<b>Reporting Limit</b>	<b>Units</b>
<b>Analytes:</b>							
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg
Ethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Freon 11	ND	ND	ND	ND	ND	5.0	µg/kg
Freon 12	ND	ND	ND	ND	ND	5.0	µg/kg
Freon 113	ND	ND	ND	ND	ND	5.0	µg/kg
Hexachlorobutadiene	ND	ND	ND	ND	ND	1.0	µg/kg
Isopropylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
4-Isopropyltoluene	ND	ND	ND	ND	ND	1.0	µg/kg
Methylene chloride	ND	ND	ND	ND	ND	1.0	µg/kg
Naphthalene	ND	ND	ND	ND	ND	1.0	µg/kg
n-Propylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Styrene	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
Tetrachloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
Toluene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
Trichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Vinyl chloride	ND	ND	ND	ND	ND	1.0	µg/kg
m,p-Xylene	ND	ND	ND	ND	ND	2.0	µg/kg
o-Xylene	ND	ND	ND	ND	ND	1.0	µg/kg
Methyl-tert-butylether	ND	ND	ND	ND	ND	5.0	µg/kg
Ethyl-tert-butylether	ND	ND	ND	ND	ND	5.0	µg/kg
Di-isopropylether	ND	ND	ND	ND	ND	5.0	µg/kg
tert-amylmethylether	ND	ND	ND	ND	ND	5.0	µg/kg
tert-Butylalcohol	ND	ND	ND	ND	ND	50.0	µg/kg
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	ND	0.20	mg/kg
<b>Dilution Factor</b>	1	1	1	1	1		
<b>Surrogate Recoveries:</b>						<b>QC Limits</b>	
Dibromofluoromethane	112%	111%	113%	111%	115%	60 - 140	
Toluene-d <sub>8</sub>	96%	95%	97%	96%	97%	60 - 140	
4-Bromofluorobenzene	98%	100%	97%	98%	96%	60 - 140	
<b>Batch:</b>	VOC5-030822-01	VOC5-030822-01	VOC5-030822-01	VOC5-030822-01	VOC5-030822-01		

ND = Value less than reporting limit





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**JONES ENVIRONMENTAL LABORATORY RESULTS**

**Client:** Farallon Consulting  
**Client Address:** 27 Mauchly, Suite 213  
Irvine, CA

**Report date:** 3/11/2022  
**Jones Ref. No.:** ST-19272  
**Client Ref. No.:** 1071-080

**Attn:** Kathy Lehnus

**Date Sampled:** 3/4/2022  
**Date Received:** 3/4/2022

**Project:** 5355 Airport Drive  
**Project Address:** 5355 Airport Drive  
Ontario, CA 91761

**Date Analyzed:** 3/8/2022  
**Physical State:** Soil

**EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics**

<u>Sample ID:</u>	SVP-6-4'	SVP-6-8'	SVP-7-4'	SVP-8-4'	SVP-9-4'		
<u>Jones ID:</u>	ST-19272-06	ST-19272-07	ST-19272-08	ST-19272-09	ST-19272-10	<u>Reporting Limit</u>	<u>Units</u>
<b>Analytes:</b>							
Benzene	ND	ND	ND	ND	ND	1.0	µg/kg
Bromobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Bromodichloromethane	ND	ND	ND	ND	ND	1.0	µg/kg
Bromoform	ND	ND	ND	ND	ND	1.0	µg/kg
n-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
sec-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
tert-Butylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Carbon tetrachloride	ND	ND	ND	ND	ND	1.0	µg/kg
Chlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Chloroform	ND	ND	ND	ND	ND	1.0	µg/kg
2-Chlorotoluene	ND	ND	ND	ND	ND	1.0	µg/kg
4-Chlorotoluene	ND	ND	ND	ND	ND	1.0	µg/kg
Dibromochloromethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	1.0	µg/kg
Dibromomethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,3-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
2,2-Dichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg

# JONES ENVIRONMENTAL LABORATORY RESULTS

## EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SVP-6-4'	SVP-6-8'	SVP-7-4'	SVP-8-4'	SVP-9-4'		
<u>Jones ID:</u>	ST-19272-06	ST-19272-07	ST-19272-08	ST-19272-09	ST-19272-10	<u>Reporting Limit</u>	<u>Units</u>
<b>Analytes:</b>							
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	1.0	µg/kg
Ethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Freon 11	ND	ND	ND	ND	ND	5.0	µg/kg
Freon 12	ND	ND	ND	ND	ND	5.0	µg/kg
Freon 113	ND	ND	ND	ND	ND	5.0	µg/kg
Hexachlorobutadiene	ND	ND	ND	ND	ND	1.0	µg/kg
Isopropylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
4-Isopropyltoluene	ND	ND	ND	ND	ND	1.0	µg/kg
Methylene chloride	ND	ND	ND	ND	ND	1.0	µg/kg
Naphthalene	ND	ND	ND	ND	ND	1.0	µg/kg
n-Propylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Styrene	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
Tetrachloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
Toluene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	1.0	µg/kg
Trichloroethene	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	1.0	µg/kg
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	1.0	µg/kg
Vinyl chloride	ND	ND	ND	ND	ND	1.0	µg/kg
m,p-Xylene	ND	ND	ND	ND	ND	2.0	µg/kg
o-Xylene	ND	ND	ND	ND	ND	1.0	µg/kg
Methyl-tert-butylether	ND	ND	ND	ND	ND	5.0	µg/kg
Ethyl-tert-butylether	ND	ND	ND	ND	ND	5.0	µg/kg
Di-isopropylether	ND	ND	ND	ND	ND	5.0	µg/kg
tert-amylmethylether	ND	ND	ND	ND	ND	5.0	µg/kg
tert-Butylalcohol	ND	ND	ND	ND	ND	50.0	µg/kg
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	ND	0.20	mg/kg
<b><u>Dilution Factor</u></b>	1	1	1	1	1		
<b><u>Surrogate Recoveries:</u></b>						<b><u>QC Limits</u></b>	
Dibromofluoromethane	111%	114%	110%	114%	113%	60 - 140	
Toluene-d <sub>8</sub>	94%	97%	94%	95%	94%	60 - 140	
4-Bromofluorobenzene	97%	99%	97%	95%	96%	60 - 140	
<b><u>Batch:</u></b>	VOC5-030822-01	VOC5-030822-01	VOC5-030822-01	VOC5-030822-01	VOC5-030822-01		

ND = Value less than reporting limit



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**JONES ENVIRONMENTAL LABORATORY RESULTS**

**Client:** Farallon Consulting  
**Client Address:** 27 Mauchly, Suite 213  
Irvine, CA

**Attn:** Kathy Lehnus

**Project:** 5355 Airport Drive  
**Project Address:** 5355 Airport Drive  
Ontario, CA 91761

**Report date:** 3/11/2022  
**Jones Ref. No.:** ST-19272  
**Client Ref. No.:** 1071-080

**Date Sampled:** 3/4/2022  
**Date Received:** 3/4/2022  
**Date Analyzed:** 3/8/2022  
**Physical State:** Soil

**EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics**

<u>Sample ID:</u>	<u>SVP-10-8'</u>	<u>SB-1-10'</u>	<u>SB-2-10'</u>		
<u>Jones ID:</u>	<u>ST-19272-11</u>	<u>ST-19272-12</u>	<u>ST-19272-13</u>	<u>Reporting Limit</u>	<u>Units</u>
<b>Analytes:</b>					
Benzene	ND	ND	ND	1.0	µg/kg
Bromobenzene	ND	ND	ND	1.0	µg/kg
Bromodichloromethane	ND	ND	ND	1.0	µg/kg
Bromoform	ND	ND	ND	1.0	µg/kg
n-Butylbenzene	ND	ND	ND	1.0	µg/kg
sec-Butylbenzene	ND	ND	ND	1.0	µg/kg
tert-Butylbenzene	ND	ND	ND	1.0	µg/kg
Carbon tetrachloride	ND	ND	ND	1.0	µg/kg
Chlorobenzene	ND	ND	ND	1.0	µg/kg
Chloroform	ND	ND	ND	1.0	µg/kg
2-Chlorotoluene	ND	ND	ND	1.0	µg/kg
4-Chlorotoluene	ND	ND	ND	1.0	µg/kg
Dibromochloromethane	ND	ND	ND	1.0	µg/kg
1,2-Dibromo-3-chloropropane	ND	ND	ND	1.0	µg/kg
1,2-Dibromoethane (EDB)	ND	ND	ND	1.0	µg/kg
Dibromomethane	ND	ND	ND	1.0	µg/kg
1,2- Dichlorobenzene	ND	ND	ND	1.0	µg/kg
1,3-Dichlorobenzene	ND	ND	ND	1.0	µg/kg
1,4-Dichlorobenzene	ND	ND	ND	1.0	µg/kg
1,1-Dichloroethane	ND	ND	ND	1.0	µg/kg
1,2-Dichloroethane	ND	ND	ND	1.0	µg/kg
1,1-Dichloroethene	ND	ND	ND	1.0	µg/kg
cis-1,2-Dichloroethene	ND	ND	ND	1.0	µg/kg
trans-1,2-Dichloroethene	ND	ND	ND	1.0	µg/kg
1,2-Dichloropropane	ND	ND	ND	1.0	µg/kg
1,3-Dichloropropane	ND	ND	ND	1.0	µg/kg
2,2-Dichloropropane	ND	ND	ND	1.0	µg/kg
1,1-Dichloropropene	ND	ND	ND	1.0	µg/kg
cis-1,3-Dichloropropene	ND	ND	ND	1.0	µg/kg

# JONES ENVIRONMENTAL LABORATORY RESULTS

## EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SVP-10-8'	SB-1-10'	SB-2-10'		
<u>Jones ID:</u>	ST-19272-11	ST-19272-12	ST-19272-13	<u>Reporting Limit</u>	<u>Units</u>
<b>Analytes:</b>					
trans-1,3-Dichloropropene	ND	ND	ND	1.0	µg/kg
Ethylbenzene	ND	ND	ND	1.0	µg/kg
Freon 11	ND	ND	ND	5.0	µg/kg
Freon 12	ND	ND	ND	5.0	µg/kg
Freon 113	ND	ND	ND	5.0	µg/kg
Hexachlorobutadiene	ND	ND	ND	1.0	µg/kg
Isopropylbenzene	ND	ND	ND	1.0	µg/kg
4-Isopropyltoluene	ND	ND	ND	1.0	µg/kg
Methylene chloride	ND	ND	ND	1.0	µg/kg
Naphthalene	ND	ND	ND	1.0	µg/kg
n-Propylbenzene	ND	ND	ND	1.0	µg/kg
Styrene	ND	ND	ND	1.0	µg/kg
1,1,1,2-Tetrachloroethane	ND	ND	ND	1.0	µg/kg
1,1,2,2-Tetrachloroethane	ND	ND	ND	1.0	µg/kg
Tetrachloroethene	ND	ND	ND	1.0	µg/kg
Toluene	ND	ND	ND	1.0	µg/kg
1,2,3-Trichlorobenzene	ND	ND	ND	1.0	µg/kg
1,2,4-Trichlorobenzene	ND	ND	ND	1.0	µg/kg
1,1,1-Trichloroethane	ND	ND	ND	1.0	µg/kg
1,1,2-Trichloroethane	ND	ND	ND	1.0	µg/kg
Trichloroethene	ND	ND	ND	1.0	µg/kg
1,2,3-Trichloropropane	ND	ND	ND	1.0	µg/kg
1,2,4-Trimethylbenzene	ND	ND	ND	1.0	µg/kg
1,3,5-Trimethylbenzene	ND	ND	ND	1.0	µg/kg
Vinyl chloride	ND	ND	ND	1.0	µg/kg
m,p-Xylene	ND	ND	ND	2.0	µg/kg
o-Xylene	ND	ND	ND	1.0	µg/kg
Methyl-tert-butylether	ND	ND	ND	5.0	µg/kg
Ethyl-tert-butylether	ND	ND	ND	5.0	µg/kg
Di-isopropylether	ND	ND	ND	5.0	µg/kg
tert-amylmethylether	ND	ND	ND	5.0	µg/kg
tert-Butylalcohol	ND	ND	ND	50.0	µg/kg
Gasoline Range Organics (C4-C12)	ND	ND	ND	0.20	mg/kg
<b><u>Dilution Factor</u></b>	1	1	1		
<b><u>Surrogate Recoveries:</u></b>				<b><u>QC Limits</u></b>	
Dibromofluoromethane	115%	111%	114%	60 - 140	
Toluene-d <sub>8</sub>	97%	96%	98%	60 - 140	
4-Bromofluorobenzene	97%	97%	98%	60 - 140	
<b><u>Batch:</u></b>	VOC5-030822-01	VOC5-030822-01	VOC5-030822-01		

ND = Value less than reporting limit



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**JONES ENVIRONMENTAL LABORATORY RESULTS**

**Client:** Farallon Consulting  
**Client Address:** 27 Mauchly, Suite 213  
Irvine, CA

**Report date:** 3/11/2022  
**Jones Ref. No.:** ST-19272  
**Client Ref. No.:** 1071-080

**Attn:** Kathy Lehnus

**Date Sampled:** 3/4/2022  
**Date Received:** 3/4/2022

**Project:** 5355 Airport Drive  
**Project Address:** 5355 Airport Drive  
Ontario, CA 91761

**Date Analyzed:** 3/8/2022  
**Physical State:** Soil

**EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics**

<u>Sample ID:</u>	<u>METHOD</u>		
	<b>BLANK #1</b>		
<b>Jones ID:</b>	<b>030822- V5MB1</b>	<b>Reporting Limit</b>	<b>Units</b>
<b>Analytes:</b>			
Benzene	ND	1.0	µg/kg
Bromobenzene	ND	1.0	µg/kg
Bromodichloromethane	ND	1.0	µg/kg
Bromoform	ND	1.0	µg/kg
n-Butylbenzene	ND	1.0	µg/kg
sec-Butylbenzene	ND	1.0	µg/kg
tert-Butylbenzene	ND	1.0	µg/kg
Carbon tetrachloride	ND	1.0	µg/kg
Chlorobenzene	ND	1.0	µg/kg
Chloroform	ND	1.0	µg/kg
2-Chlorotoluene	ND	1.0	µg/kg
4-Chlorotoluene	ND	1.0	µg/kg
Dibromochloromethane	ND	1.0	µg/kg
1,2-Dibromo-3-chloropropane	ND	1.0	µg/kg
1,2-Dibromoethane (EDB)	ND	1.0	µg/kg
Dibromomethane	ND	1.0	µg/kg
1,2- Dichlorobenzene	ND	1.0	µg/kg
1,3-Dichlorobenzene	ND	1.0	µg/kg
1,4-Dichlorobenzene	ND	1.0	µg/kg
1,1-Dichloroethane	ND	1.0	µg/kg
1,2-Dichloroethane	ND	1.0	µg/kg
1,1-Dichloroethene	ND	1.0	µg/kg
cis-1,2-Dichloroethene	ND	1.0	µg/kg
trans-1,2-Dichloroethene	ND	1.0	µg/kg
1,2-Dichloropropane	ND	1.0	µg/kg
1,3-Dichloropropane	ND	1.0	µg/kg
2,2-Dichloropropane	ND	1.0	µg/kg
1,1-Dichloropropene	ND	1.0	µg/kg
cis-1,3-Dichloropropene	ND	1.0	µg/kg

## JONES ENVIRONMENTAL LABORATORY RESULTS

### EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<b><u>Sample ID:</u></b>	<b>METHOD</b> <b>BLANK #1</b>		
<b><u>Jones ID:</u></b>	<b>030822-</b> <b>V5MB1</b>		
<b><u>Analytes:</u></b>		<b><u>Reporting Limit</u></b>	<b><u>Units</u></b>
trans-1,3-Dichloropropene	ND	1.0	µg/kg
Ethylbenzene	ND	1.0	µg/kg
Freon 11	ND	5.0	µg/kg
Freon 12	ND	5.0	µg/kg
Freon 113	ND	5.0	µg/kg
Hexachlorobutadiene	ND	1.0	µg/kg
Isopropylbenzene	ND	1.0	µg/kg
4-Isopropyltoluene	ND	1.0	µg/kg
Methylene chloride	ND	1.0	µg/kg
Naphthalene	ND	1.0	µg/kg
n-Propylbenzene	ND	1.0	µg/kg
Styrene	ND	1.0	µg/kg
1,1,1,2-Tetrachloroethane	ND	1.0	µg/kg
1,1,2,2-Tetrachloroethane	ND	1.0	µg/kg
Tetrachloroethene	ND	1.0	µg/kg
Toluene	ND	1.0	µg/kg
1,2,3-Trichlorobenzene	ND	1.0	µg/kg
1,2,4-Trichlorobenzene	ND	1.0	µg/kg
1,1,1-Trichloroethane	ND	1.0	µg/kg
1,1,2-Trichloroethane	ND	1.0	µg/kg
Trichloroethene	ND	1.0	µg/kg
1,2,3-Trichloropropane	ND	1.0	µg/kg
1,2,4-Trimethylbenzene	ND	1.0	µg/kg
1,3,5-Trimethylbenzene	ND	1.0	µg/kg
Vinyl chloride	ND	1.0	µg/kg
m,p-Xylene	ND	2.0	µg/kg
o-Xylene	ND	1.0	µg/kg
Methyl-tert-butylether	ND	5.0	µg/kg
Ethyl-tert-butylether	ND	5.0	µg/kg
Di-isopropylether	ND	5.0	µg/kg
tert-amylmethylether	ND	5.0	µg/kg
tert-Butylalcohol	ND	50.0	µg/kg
Gasoline Range Organics (C4-C12)	ND	0.20	mg/kg
<b><u>Dilution Factor</u></b>	1		
<b><u>Surrogate Recoveries:</u></b>		<b><u>QC Limits</u></b>	
Dibromofluoromethane	106%	60 - 140	
Toluene-d <sub>8</sub>	100%	60 - 140	
4-Bromofluorobenzene	96%	60 - 140	

**Batch:** VOC5-030822-01

ND = Value less than reporting limit



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**JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION**

<b>Client:</b>	Farallon Consulting	<b>Report date:</b>	3/11/2022
<b>Client Address:</b>	27 Mauchly, Suite 213 Irvine, CA	<b>Jones Ref. No.:</b>	ST-19272
		<b>Client Ref. No.:</b>	1071-080
<b>Attn:</b>	Kathy Lehnus	<b>Date Sampled:</b>	3/4/2022
		<b>Date Received:</b>	3/4/2022
<b>Project:</b>	5355 Airport Drive	<b>Date Analyzed:</b>	3/8/2022
<b>Project Address:</b>	5355 Airport Drive Ontario, CA 91761	<b>Physical State:</b>	Soil

**EPA 8260B by 5035 – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics**

<b>GC#:</b>	<b>VOC5-030822-01</b>					
<b>Jones ID:</b>	030822-V5LCS1	030822-V5LCSD1			030822-V5CCV1	
	LCS	LCSD		Acceptability		Acceptability
<u>Parameter</u>	Recovery (%)	Recovery (%)	<u>RPD</u>	Range (%)	<u>CCV</u>	Range (%)
Vinyl chloride	73%	70%	4%	60 - 140	94%	80 - 120
1,1-Dichloroethene	93%	92%	1.1%	60 - 140	112%	80 - 120
Cis-1,2-Dichloroethene	111%	110%	0.9%	70 - 130	120%	80 - 120
1,1,1-Trichloroethane	100%	96%	3.5%	70 - 130	114%	80 - 120
Benzene	109%	107%	2.3%	70 - 130	120%	80 - 120
Trichloroethene	107%	106%	1.3%	70 - 130	116%	80 - 120
Toluene	114%	111%	2.8%	70 - 130	109%	80 - 120
Tetrachloroethene	113%	108%	4.2%	70 - 130	120%	80 - 120
Chlorobenzene	115%	114%	0.9%	70 - 130	115%	80 - 120
Ethylbenzene	109%	104%	4.4%	70 - 130	115%	80 - 120
1,2,4 Trimethylbenzene	114%	114%	0.0%	70 - 130	114%	80 - 120
Gasoline Range Organics (C4-C12)	112%	109%	2.3%	70 - 130		
<b><u>Surrogate Recovery:</u></b>						
Dibromofluoromethane	108%	108%		60 - 140	114%	80 - 120
Toluene-d <sub>8</sub>	98%	100%		60 - 140	102%	80 - 120
4-Bromofluorobenzene	99%	102%		60 - 140	96%	80 - 120

LCS = Laboratory Control Sample  
 LCSD = Laboratory Control Sample Duplicate  
 CCV = Continuing Calibration Verification  
 RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 20%



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**JONES ENVIRONMENTAL  
LABORATORY RESULTS**

**Client:** Farallon Consulting, Inc.  
**Client Address:** 27 Mauchly, Suite 213  
Irvine, CA  
  
**Attn:** Kathy Lehnus  
  
**Project:** 5355 Airport Drive  
**Project Address:** 5355 Airport Drive  
Ontario, CA 91761

**Report date:** 3/11/2022  
**Jones Ref. No.:** ST-19272  
**Client Ref. No.:** 1071-080  
  
**Date Sampled:** 3/4/2022  
**Date Received:** 3/4/2022  
**Date Analyzed:** 3/8/2022  
**Physical State:** Soil

**EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES**

**Sample ID:** SVP-6-4' SVP-6-8'

**Jones ID:** ST-19272-06 ST-19272-07

**Analytes:**

	SVP-6-4'	SVP-6-8'	<u>Reporting Limit</u>	<u>Units</u>
Silver, Ag	ND	ND	0.5	mg/kg
Arsenic, As	ND	ND	5.0	mg/kg
Barium, Ba	<b>61.2</b>	<b>59.6</b>	0.5	mg/kg
Beryllium, Be	ND	ND	0.5	mg/kg
Cadmium, Cd	<b>0.9</b>	<b>0.9</b>	0.5	mg/kg
Cobalt, Co	<b>5.2</b>	<b>5.2</b>	0.5	mg/kg
Chromium, Cr	<b>8.2</b>	<b>8.5</b>	0.5	mg/kg
Copper, Cu	<b>5.9</b>	<b>6.0</b>	0.5	mg/kg
Molybdenum, Mo	ND	ND	0.5	mg/kg
Nickel, Ni	<b>5.2</b>	<b>5.2</b>	0.5	mg/kg
Lead, Pb	<b>1.1</b>	<b>1.2</b>	0.5	mg/kg
Antimony, Sb	ND	ND	5.0	mg/kg
Selenium, Se	ND	ND	5.0	mg/kg
Thallium, Tl	ND	ND	5.0	mg/kg
Vanadium, V	<b>24.6</b>	<b>23.1</b>	0.5	mg/kg
Zinc, Zn	<b>26.5</b>	<b>27.0</b>	0.5	mg/kg
<b>Dilution Factor</b>	1	1		

**Batch:** I22030702 I22030702

**EPA 7471A - Mercury by Cold Vapor Atomic Absorption**

**Sample ID:** SVP-6-4' SVP-6-8'

**Jones ID:** ST-19272-06 ST-19272-07

	SVP-6-4'	SVP-6-8'	<u>Reporting Limit</u>	<u>Units</u>
Mercury, Hg	ND	ND	0.020	mg/kg

**Dilution Factor** 1 1

**Batch:** H22030801 H22030801

ND = Value less than reporting limit





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**JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION**

**Client:** Farallon Consulting, Inc.  
**Client Address:** 27 Mauchly, Suite 213  
Irvine, CA

**Report date:** 3/11/2022  
**Jones Ref. No.:** ST-19272  
**Client Ref. No.:** 1071-080

**Attn:** Kathy Lehnus

**Date Sampled:** 3/4/2022  
**Date Received:** 3/4/2022

**Project:** 5355 Airport Drive  
**Project Address:** 5355 Airport Drive  
Ontario, CA 91761

**Date Analyzed:** 3/8/2022  
**Physical State:** Soil

**BATCH:** I22030702      **Prepared:** 3/7/2022      **Analyzed:** 3/8/2022

**EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES**

Analytes:	Result	Spike Level	% REC	% REC Limits	% RPD	Reporting Limit	Units
<b>METHOD BLANK:</b>	<b>I220307-MB2</b>						
Silver, Ag	ND					0.5	mg/kg
Arsenic, As	ND					5.0	mg/kg
Barium, Ba	ND					0.5	mg/kg
Beryllium, Be	ND					0.5	mg/kg
Cadmium, Cd	ND					0.5	mg/kg
Cobalt, Co	ND					0.5	mg/kg
Chromium, Cr	ND					0.5	mg/kg
Copper, Cu	ND					0.5	mg/kg
Molybdenum, Mo	ND					0.5	mg/kg
Nickel, Ni	ND					0.5	mg/kg
Lead, Pb	ND					0.5	mg/kg
Antimony, Sb	ND					5.0	mg/kg
Selenium, Se	ND					5.0	mg/kg
Thallium, Tl	ND					5.0	mg/kg
Vanadium, V	ND					0.5	mg/kg
Zinc, Zn	ND					0.5	mg/kg

ND= Not Detected



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**JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION**

**Client:** Farallon Consulting, Inc.  
**Client Address:** 27 Mauchly, Suite 213  
Irvine, CA

**Report date:** 3/11/2022  
**Jones Ref. No.:** ST-19272  
**Client Ref. No.:** 1071-080

**Attn:** Kathy Lehnus

**Date Sampled:** 3/4/2022

**Project:** 5355 Airport Drive  
**Project Address:** 5355 Airport Drive  
Ontario, CA 91761

**Date Received:** 3/4/2022

**Date Analyzed:** 3/8/2022

**Physical State:** Soil

**BATCH:** I22030702      **Prepared:** 3/7/2022      **Analyzed:** 3/8/2022

**EPA 6010B by 3050 - Title 22 CAM 17 Trace Metals by ICP-OES**

	Result	Spike Level	% REC	% RPD	% REC Limits	Units
<b>Analyses:</b>						
<b>LCS: I220307-LCS2</b>						
Barium, Ba	220	200	110%		80 - 120	mg/kg
Cobalt, Co	58.1	50.0	116%		80 - 120	mg/kg
Lead, Pb	55.8	50.0	112%		80 - 120	mg/kg
Selenium, Se	193	200	97%		80 - 120	mg/kg
Zinc, Zn	52.0	50.0	104%		80 - 120	mg/kg

<b>LCSD: I220307-LCSD2</b>						
Barium, Ba	219	200	110%	0.5%	80 - 120	mg/kg
Cobalt, Co	55.4	50.0	111%	4.8%	80 - 120	mg/kg
Lead, Pb	55.9	50.0	112%	0.2%	80 - 120	mg/kg
Selenium, Se	194	200	97%	0.5%	80 - 120	mg/kg
Zinc, Zn	51.4	50.0	103%	1.2%	80 - 120	mg/kg

<b>CCV: I220307-CCV2</b>						
Barium, Ba	1.02	1.00	102%		90-110	mg/L
Cobalt, Co	1.08	1.00	108%		90-110	mg/L
Lead, Pb	1.04	1.00	104%		90-110	mg/L
Selenium, Se	1.00	1.00	100%		90-110	mg/L
Zinc, Zn	1.05	1.00	105%		90-110	mg/L

CCV = Continuing Calibration Verification  
LCS = Laboratory Control Sample  
LCSD= Laboratory Control Sample Duplicate

ND= Not Detected  
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%



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**JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION**

<b>Client:</b>	Farallon Consulting, Inc.	<b>Report date:</b>	3/11/2022
<b>Client Address:</b>	27 Mauchly, Suite 213 Irvine, CA	<b>Jones Ref. No.:</b>	ST-19272
		<b>Client Ref. No.:</b>	1071-080
<b>Attn:</b>	Kathy Lehnus	<b>Date Sampled:</b>	3/4/2022
		<b>Date Received:</b>	3/4/2022
<b>Project:</b>	5355 Airport Drive	<b>Date Analyzed:</b>	3/8/2022
<b>Project Address:</b>	5355 Airport Drive Ontario, CA 91761	<b>Physical State:</b>	Soil

**BATCH:** H22030801      **Prepared:** 3/8/2022      **Analyzed:** 3/8/2022

**EPA 7471A - Mercury by Cold Vapor Atomic Absorption**

Analytes:	Result	Spike Level	% REC	% RPD	% REC Limits	Reporting Limit	Units
<b>METHOD BLANK:</b>	<b>H220308-MB1</b>						
Mercury, Hg	ND					0.020	mg/kg

<b>LCS:</b>	<b>H220308-LCS1</b>						
Mercury, Hg	1.06	1.00	106%		80 - 120		mg/kg

<b>LCSD:</b>	<b>H220308-LCSD1</b>						
Mercury, Hg	1.02	1.00	102%	3.8%	80 - 120		mg/kg

<b>CCV:</b>	<b>H220308-CCV1</b>						
Mercury, Hg	5.13	5.00	103%		90-110		µg/L

ND= Not Detected  
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 15%

LCS = Laboratory Control Sample  
LCSD= Laboratory Control Sample Duplicate  
CCV = Continuing Calibration Verification  
RPD = Relative Percent Difference



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# Chain-of-Custody Record

## Turn Around Requested:

- Immediate Attention - 200%
- Rush 24 Hours - 100%
- Rush 48 Hours - 50%
- Rush 72 Hours - 25%
- Rush 96 Hours - 10%
- Normal - No Surcharge

LAB USE ONLY

Jones Project #

ST-19272

Page

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## Report Options

EDD \_\_\_\_\_  
 EDF\* - 10% Surcharge \_\_\_\_\_  
 \*Global ID \_\_\_\_\_

Client FARALLON CONSULTING	Date 3/4/22
Project Name 5355 AIRPORT DRIVE	Client Project # 1071-080
Project Address 5355 AIRPORT DRIVE	Sample Container / Preservative Abbreviations
ONTARIO, CA 91761	AS - Acetate Sleeve SS - Stainless Steel Sleeve BS - Brass Sleeve G - Glass AB - Amber Bottle P - Plastic SOBI - Sodium Bisulfate MeOH - Methanol HCl - Hydrochloric Acid HNO3 - Nitric Acid O - Other (See Notes)
Email KATHY LEHNUS @ FARALLON CONSULTING . COM BTAYLOR @ " "	Analysis Requested
Phone	
Report To KATHY LEHNUS	Sampler N. MONTROY

Sample ID	Sample Collection Date	Sample Collection Time	Laboratory Sample ID	Preservative	Sample Container	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Free Product (FP)	Analysis Requested										Number of Containers	Notes & Special Instructions		
SVP-1-10'	3/4/22	0854	ST-19272-01	5035	3-VOA 1-402	S	VOCS 5035	X	X										4	
SVP-2-4'		0816	ST-19272-02		3-VOA	S		X				X								
SVP-3-4'		0932	ST-19272-03		3-VOA 1-402	S		X				X								
SVP-4-4'		0914	ST-19272-04			S		X				X								
SVP-5-10'		0958	ST-19272-05			S		X	X											
SVP-6-4'		1114	ST-19272-06			S		X	X	X										
SVP-6-8'		1128	ST-19272-07			S		X	X	X										
SVP-7-4'		1100	ST-19272-08			S		X	X											
SVP-8-4'		1048	ST-19272-09			S		X	X											
SVP-9-4'		1035	ST-19272-10			S		X	X											

Relinquished By (Signature) <i>[Signature]</i>	Printed Name N. MONTROY	Received By (Signature) <i>[Signature]</i>	Printed Name PANIZI CHOI	Total Number of Containers 52
Company FARALLON	Date 3/4/22	Time 1452	Company TEI	Date 03/04/22
Relinquished By (Signature) <i>[Signature]</i>	Printed Name PANIZI CHOI	Received By Laboratory (Signature) <i>[Signature]</i>	Printed Name PANIZI CHOI	Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been requested, and the information provided herein is correct and accurate.
Company	Date	Time	Company TEI	Date 03/04/22



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# Chain-of-Custody Record

### Turn Around Requested:

- Immediate Attention - 200%
- Rush 24 Hours - 100%
- Rush 48 Hours - 50%
- Rush 72 Hours - 25%
- Rush 96 Hours - 10%
- Normal - No Surcharge

LAB USE ONLY

Jones Project #

ST-19272

Page

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### Report Options

EDD \_\_\_\_\_  
 EDF\* - 10% Surcharge \_\_\_\_\_  
 \*Global ID \_\_\_\_\_

Client	SEE PG 1	Date	3/4/22
Project Name	" "	Client Project #	1071-090
Project Address	" "	Sample Container / Preservative Abbreviations	AS - Acetate Sleeve SS - Stainless Steel Sleeve BS - Brass Sleeve G - Glass AB - Amber Bottle P - Plastic SOBI - Sodium Bisulfate MeOH - Methanol HCl - Hydrochloric Acid HNO3 - Nitric Acid O - Other (See Notes)
Email	" "	Analysis Requested	
Phone	" "		
Report To	" Sampler		

Sample ID	Sample Collection Date	Sample Collection Time	Laboratory Sample ID	Preservative	Sample Container	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Free Product (FP)	Analysis Requested										Number of Containers	Notes & Special Instructions			
SVP-10-8'	3/4/22	1143	ST-19272-11	5035	3-VOL 1-402	S	VOCs	5035												4	
SB-1-10'		0840	ST-19272-12			S														1	
SB-2-10'		1022	ST-19272-13			S														1	

Relinquished By (Signature)	Printed Name	Received By (Signature)	Printed Name	Total Number of Containers	
<i>[Signature]</i>	N. MONTROY	<i>[Signature]</i>	Daniel Choi	52	
Company	Date	Time	Company	Date	Time
FARALLON	3/4/22	1452	JEI	6/3/04/22	1452
Relinquished By (Signature)	Printed Name	Received By Laboratory (Signature)	Printed Name	Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been requested, and the information provided herein is correct and accurate.	
<i>[Signature]</i>		<i>[Signature]</i>	Daniel Choi	Item B - 2030 of 3096	
Company	Date	Time	Company	Date	Time



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goals 2

**SAMPLE RECEIPT FORM**

Jones ID: \_\_\_\_\_

CLIENT: \_\_\_\_\_ DATE/TIME (LAB RECEIVED): \_\_\_\_\_

PROJECT: \_\_\_\_\_ RECEIVED BY: \_\_\_\_\_

Delivered by:  Client  Jones Courier  UPS / FedEx / USPS  Other \_\_\_\_\_

**TEMPERATURE:** Thermometer ID: T-1 (Corrected Temp.) Calibration Due: 08/03/2022

Temperature Cooler #1 15.0 °C ± the CF(-0.5°C) 14.5 °C Blank Sample

Temperature Cooler #2 \_\_\_\_\_ °C ± the CF(-0.5°C) \_\_\_\_\_ °C Blank Sample

Temperature Criteria: 0 ≤ 6°C (NO frozen containers) Criteria Met?  Yes  No

If criteria is not met:

Sample Received on ice?  Yes  No\*

Sample received Chilled on same day of sampling?  Yes  No\*

Checked By: \_\_\_\_\_

SAMPLE CONDITION:	YES	NO*	N/A
Chain of Custody (COC) received filled out completely -----	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Total number of containers received match COC-----	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC-----	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and in good condition-----	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers and sufficient volume for analyses requested on COC-----	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper preservative indicated on COC/container for analyses requested-----	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Volatile analysis container(s) free of headspace (EPA 8260 water) -----	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Custody Seals Intact on Cooler/Sample-----	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**CONTAINER TYPE:**

<u>Solid:</u>	<u>Aqueous:</u>	<u>Air / Soil Gas:</u>
5035 Kits: <u>39</u>	Amber Bottle: _____	Tedlar Bag: _____
Glass Jar: <u>13</u>	VOAs: _____	6 hr
Sleeve: _____	Poly Bottle: _____	72 hr
Other: _____	5030 Kits: _____	5 Day
	Other: _____	Summa:
		(1L) _____ (6L) _____

**MILEAGE:**

Round Trip Mileage: \_\_\_\_\_ Travel Time: \_\_\_\_\_ On Site Time: \_\_\_\_\_

*\*Complete Non-Conformance if checked* Checked by: \_\_\_\_\_

---

March, 2022  
2021-502

# 5355 Airport Drive

City of Ontario, CA

## Preliminary Hydrology Report

**Prepared For:**

Prologis  
3546 Concours St., Suite 100  
Ontario, CA 91764

**Prepared By:**

West**LAND** Group, Inc.  
4150 Concours, Suite 100  
Ontario, CA 91764  
909-989-9789

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# 1. INTRODUCTION

## 1.1. PURPOSE & SCOPE

The purpose of this study is to demonstrate that the proposed project site can be designed to provide adequate flood protection without adversely impacting existing off-site drainage systems or adjacent properties. The scope of this analysis includes the pre-developed and post-developed runoff analysis.

# 2. EXISTING SITE DESCRIPTION

## 2.1. EXISTING SITE TOPOGRAPHY & HYDROLOGIC PATTERNS

The project site, approximately 12.85 acres, is located approximately 0.25 miles east of the intersection of South Wineville Avenue and Airport Drive in the City of Ontario, County of San Bernardino. The site is referenced by the street address 5355 East Airport Avenue. The site is currently bounded to the north by Southern Pacific Transportation Company Railroad, to the east and west by existing industrial development, and to the south by Airport Drive.

The site in the pre-development condition is developed to manufacture and store animal feed grains. The site includes several existing buildings, shed structures, silos, and above-ground storage tanks (ASTs). The existing structures are generally surrounded by asphaltic concrete (AC) pavements, with isolated areas of Portland cement concrete (PCC), aggregate base pavements, and exposed soils in the south-central portion of the site. The existing pavements are in poor condition, with moderate to severe cracking throughout. The site currently consists approximately 92% of impervious areas. The entire site will be demolished prior to grading.

The natural drainage pattern for the existing condition of the site is north to south. There are no existing no public storm drain systems at the frontage of the project site. Stormwater sheet flow south and discharge onto the existing curb and gutter on Airport Drive. Runoff flows east along Airport Drive and discharge into an existing catch basin located approximately 1,500 feet east of the site. This existing catch basin is connected to the Lower Etiwanda Creek Channel, which convey stormwater to the Wineville Basin. See Figure 1 for the pre-development drainage map.

---

## 3. PROJECT SITE DESCRIPTION

### 3.1. PROJECT DESCRIPTION & HYDROLOGIC PATTERNS

The envisioned development is a proposed industrial building with auto parking spaces and trailer parking spaces. Docking areas are located south of the proposed building. Open landscape areas are proposed around the perimeter of the site. The proposed development will consist approximately 89% of impervious areas.

The proposed development will maintain the same natural drainage pattern as the existing condition. Stormwater will sheet flow from north to south and will be captured by proposed on-site catch basins. The proposed on-site storm drain system will convey the flow into a proposed underground infiltration chamber. This system will be designed to meet project's water quality requirements and provide sufficient storage to meet the 100-year storm hydrology requirement. In a large storm event, stormwater will exit the underground chamber system via pipes and will be pumped out through a proposed parkway drain on Airport Drive. Runoff will sheet flow east along Airport Drive and discharge into the existing catch basin to maintain the same point of discharge as the existing condition. See Figure 2 for the pre-development drainage map.

## 4. RESULTS & ANALYSIS

### 4.1. METHODOLOGY

The proposed drainage areas were analyzed using the San Bernardino (SB) County Hydrology Manual. The main methods used for this project were the Rational Method, Synthetic Unit Hydrograph Method, and Basin Routing Analysis. Civil Design software was used to compute the data. Solving for the Rational Method returns the peak flow rate. Unit Hydrograph analysis will determine the total volume generated from a storm event. Basin Routing analysis will analyze the storage volume and outflow flow rate for the proposed underground infiltration chamber.

According to the NRCS Soils Map, the site is entirely composed of type A soil (See Appendix E). The proposed land use was analyzed as commercial for both the pre- and post-development condition. According to the county's manual, Antecedent Moisture Condition (AMC) I is used for the 2-year storm event and AMC III was used for the 100-year storm event in order to give more confidence to mitigate any increase runoff, if needed.

For the rational method analysis, the runoff coefficient is determined by the land use for each condition. The rainfall intensities are based on the time of concentration for each drainage area and the intensity-duration curves provided in the county's manual. The flow lengths and terrain elevations were determined using existing topography for the pre-development condition and the conceptual grading plans for the post-development condition.

For the unit hydrograph analysis, the lag time was determined by using the time of concentration based on the rational method analysis. Rainfall depths were obtained from the National Oceanic and Atmospheric Administration (NOAA) Point Precipitation Frequency Estimates. The rainfall depth data are included in Appendix E. The rainfall used in the hydrology calculations are summarized on Table 4.1.

Table 4.1: Rainfall Depths	
Storm Event & Duration	Rainfall Depth (inches)
2-Year, 1-Hour	0.526
2-Year, 6-Hour	1.39
2-Year, 24-Hour	2.51
100-Year, 1-Hour	1.31
100-Year, 6-Hour	3.15
100-Year, 24-Hour	5.74

For the basin routing analysis, the results from the unit hydrograph analysis were used to determine the amount of stormwater entering and existing the proposed underground infiltration chamber at each time interval. The staging data table is provided in Appendix D.

## 4.2. HYDROLOGY RESULTS & ANALYSIS

The complete rational method analysis and results are included in Appendix B. The complete unit hydrograph analysis and results are included in Appendix C. The tables below provide a summary of the peak flow rate and runoff volume for the pre-developed and post-developed condition for the 2- and 100-year storm.

Table 4.2.1: Pre-Development Hydrology Summary Table					
Storm Event	Area (Acres)	Tc (min.)	Intensity (in/hr)	Flow Rate (cfs) (Rational Method)	Volume (cf) (Unit Hydrograph)
2-Year	12.85	14.77	1.71	14.42	--
100-Year		14.20	3.11	38.03	241,431

Table 4.2.2: Post-Development Hydrology Summary Table					
Storm Event	Area (Acres)	Tc (min.)	Intensity (in/hr)	Flow Rate (cfs) (Rational Method)	Volume (cf) (Unit Hydrograph)
2-Year	12.85	12.60	1.20	12.92	--
100-Year		14.39	3.09	35.24	237,145

Table 4.2.3: Result Analysis Summary Table	
Hydrology Results & Analysis Summary Table:	Project Site Disturbed Area = <b>559,755 SF (12.85 Acres)</b> $Q_{100, PRE} = 38.03 \text{ CFS}$ $Q_{100, POST} = 35.24 \text{ CFS}$ $\Delta Q_{100} = - 2.79 \text{ CFS} = 0 \text{ CFS}$ $\Delta V_{100} = - 4,286 \text{ CF} = 0 \text{ CF}$ DCV = <b>51,054 CF</b> (See Water Quality Management Plan) DCV > $\Delta V_{100}$   <b>51,054 CF = Site Design Storage Requirement</b> <b>Volume Provided = 140,009 CF</b> (Underground Infiltration Chamber)

Based on the 100-year rational method analysis, the post-development flow rate within the disturbed area decreased compare to the pre-development flow rate. Furthermore, the post-development runoff volume decreased compare to the pre-development runoff volume. The decrease in flow rate and runoff volume was a result from a decrease in impervious areas.

Based on the Water Quality Management Plan for this project, the design capture volume (DCV) for the site is 51,054 cubic feet per second (cfs). Since the DCV is higher than the difference between the pre- and post-development 100-year storm runoff volume (0 cfs), the DCV is the minimum storm runoff storage required for the proposed development.

To satisfy the water quality requirement, an underground infiltration chamber with a storage volume of 140,009 cubic-feet is proposed for the project. Since there are no public storm drain systems around the frontage of the site, the proposed chamber system will provide sufficient storage volume to mitigate the full 100-year storm runoff volume to promote on-site infiltration. In a large storm event, an overflow sump pump is proposed for the project site. The sump pump will be designed to have a maximum outflow flow rate of 4 cfs. This strategy will reduce any potential impacts to the downstream off-site storm drain system and to mitigate any flooding potential.

A basin routing analysis was performed to analyze the proposed chamber system with the sump pump and determine the water surface elevation in a 100-year storm event. The complete results of the basin routing analysis are included in Appendix D and is summarized on Table 4.2.4.

<b>Table 4.2.4: Basin Routing Analysis Summary Table</b>						
Basin ID	Peak Flow In – Q <sub>100</sub> (cfs)	Peak Flow Out – Q <sub>100</sub> (cfs)	Storage Volume (cf)	Maximum Ponding Depth (ft)	100-year Storm Water Surface Elevation (ft)	Freeboard (ft)
Underground Infiltration Chamber #1	35.24	4.00	140,009	10.00	8.00	2.00

## 5. CONCLUSION

The proposed development would not create or contribute runoff that would exceed the capacity of the existing downstream storm drain system. Furthermore, the underground infiltration system will be designed to accommodate the 100-year storm event and would not exceed the flow rates and runoff volumes generated by the existing condition. Once construction is complete, there would not be any substantial increase in flood boundaries, levels or frequencies in any areas outside the development. The hydrologic analyses and calculations were designed in accordance with the San Bernardino County Hydrology Manual. The results from the analysis will be the basis for the grading and on-site storm-drain construction documents for the project.

Evaluation of the appropriateness of guidelines and the accuracy of County data was beyond the scope of this study. Usage of this report is limited to address the purpose and scope previously defined by the project owner. The contents of this report are professional opinion and as such, are not to be considered a guaranty or warranty.

## 6. REFERENCES

1. National Oceanic and Atmospheric Administration (NOAA) Atlas 14 Point Precipitation Frequency Estimates
2. National Resources Conservation Service (NRCS) Web Soil Survey
3. San Bernardino County Hydrology Manual dated August 1986
4. San Bernardino County Technical Guidance Document Water Quality Management Plan dated September 19, 2013

# APPENDIX A

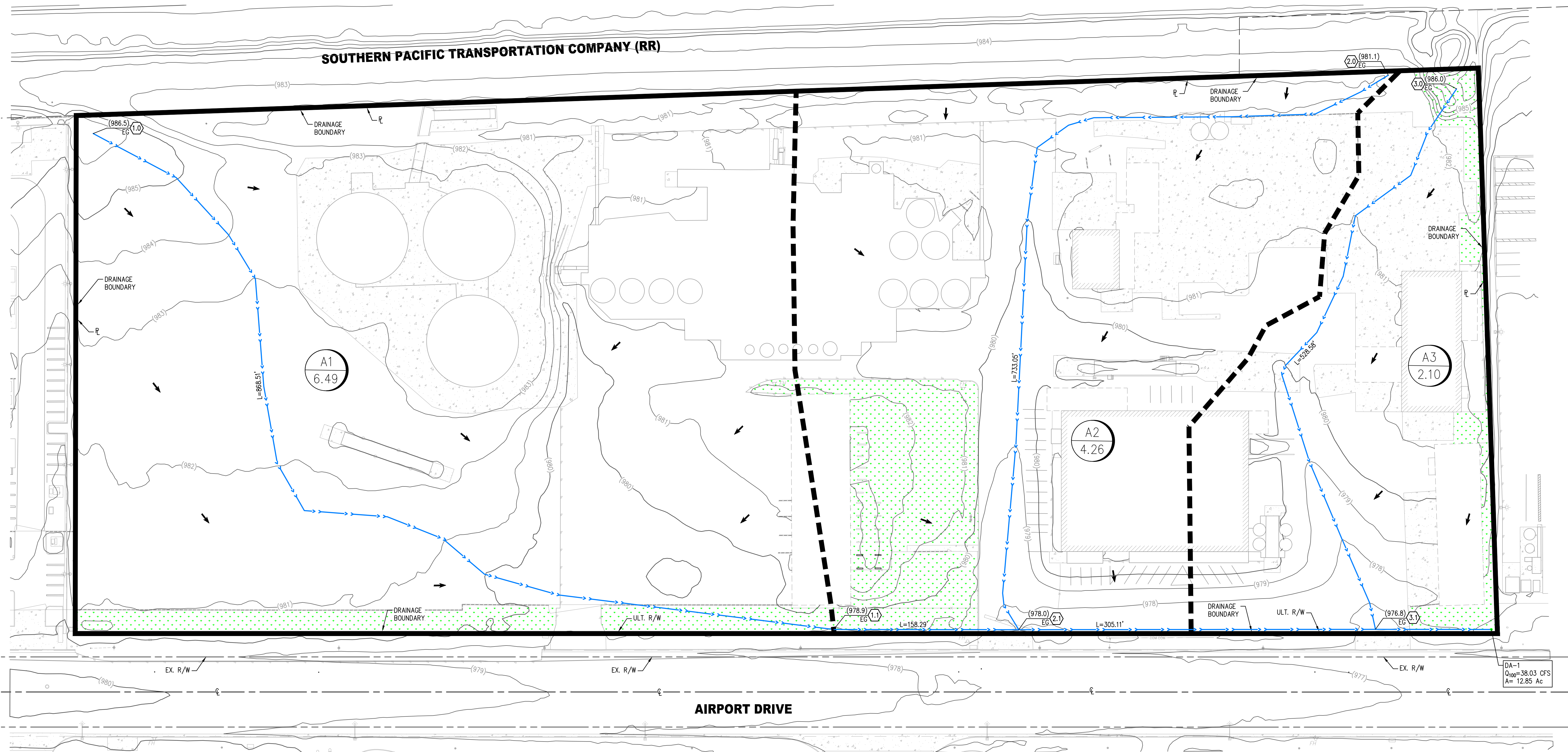
## HYDROLOGY EXHIBITS



**SITE VICINITY MAP**

<b>WestLAND</b> <b>Group, Inc.</b> Land Surveyors • Civil Engineers • GIS 4150 CONCOURS, ONTARIO, CA 91764 PHONE: (909) 989-9789 FAX: (909) 989-9660	<b>Job Number:</b> 2021-502
	<b>Date:</b> 03/23/2022
	<b>Scale:</b> NOT TO SCALE

Drawing Name: P:\Year\_2021\2021-502 5355 Airport - Prologis - John Carter\06 Engineering\Exhibits\1\_Aerial View Map\2021-502\_EXH\_AERIAL.dwg



**HYDROLOGY SUMMARY TABLE**

SUBAREAS ID	RUNOFF COEFFICIENT "C"	TIME OF CONC. "Tc" (MIN.)	RAINFALL INTENSITY "I" (INCH/HOUR)	DRAINAGE AREA (AC)	RUNOFF FLOW RATE "Q <sub>100</sub> " (CFS)
A1	0.88	11.75	3.485	6.49	19.90
A2	0.88	12.70	3.326	4.26	12.45
A3	0.88	8.40	4.264	2.10	7.91
TOTAL	---	14.20	---	12.85	38.03

**GENERAL NOTES**

- SEE PRELIMINARY HYDROLOGY REPORT, PREPARED BY WESTLAND GROUP, FOR THE COMPLETE POST-DEVELOPMENT HYDROLOGY CALCULATIONS.
- CALCULATIONS WERE BASED ON THE REQUIREMENTS ON THE SAN BERNARDINO HYDROLOGY MANUAL FOR 100 YEAR STORM.
- ALL EXISTING ELEVATIONS ARE APPROXIMATE.
- EXISTING TOPOGRAPHIC SURVEY SHOWN ON PLAN WAS PREPARED BY WESTLAND GROUP, DATED NOVEMBER 30, 2021

**PROJECT SITE SUMMARY**

**AREA A**

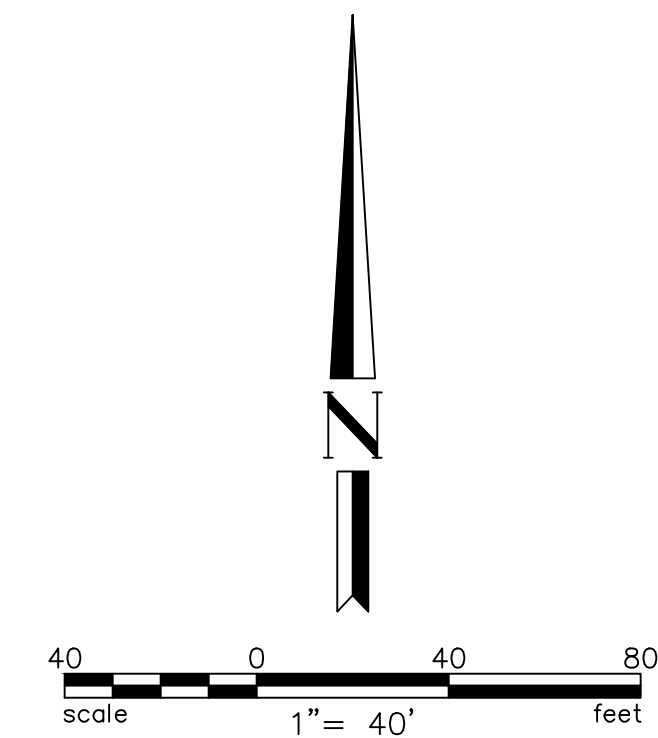
SITE AREA:	12.85 ACRE
SOIL GROUP:	A (PER USDA WEB SOIL SURVEY)
IMPERVIOUS:	92% (PRE-DEVELOPMENT)
ISOHYETALS:	0.526" (2-YEAR 1 HOUR) 1.21" (100-YEAR 1 HOUR)
CN NUMBER:	32 (SOIL GROUP A)
FREQUENCY:	100 YEAR (FOR STORM DRAIN DESIGN)
METHOD:	SAN BERNARDINO COUNTY HYDROLOGY MANUAL

**LEGEND**

- PROJECT DRAINAGE BOUNDARY/PROPERTY LINE
- SUB-AREA BOUNDARY
- FLOW PATH
- PROPOSED STORM DRAIN (PRELIMINARY)
- SUB-DRAINAGE AREA ID
- SUB-DRAINAGE AREA IDENTIFIER
- FLOW ARROW
- SURFACE FLOW NODE
- EXISTING PERVIOUS AREA

**ABBREVIATIONS**

- CF CUBIC FEET
- CL OR C CENTERLINE
- DA DRAINAGE AREA
- EG EXISTING GRADE
- EX EXISTING
- HR HOUR
- IN INCH/INCHES
- L LENGTH
- R/W RIGHT OF WAY
- PL OR P PROPERTY LINE
- PROP PROPOSED
- SD STORM DRAIN
- ULT ULTIMATE
- V VOLUME



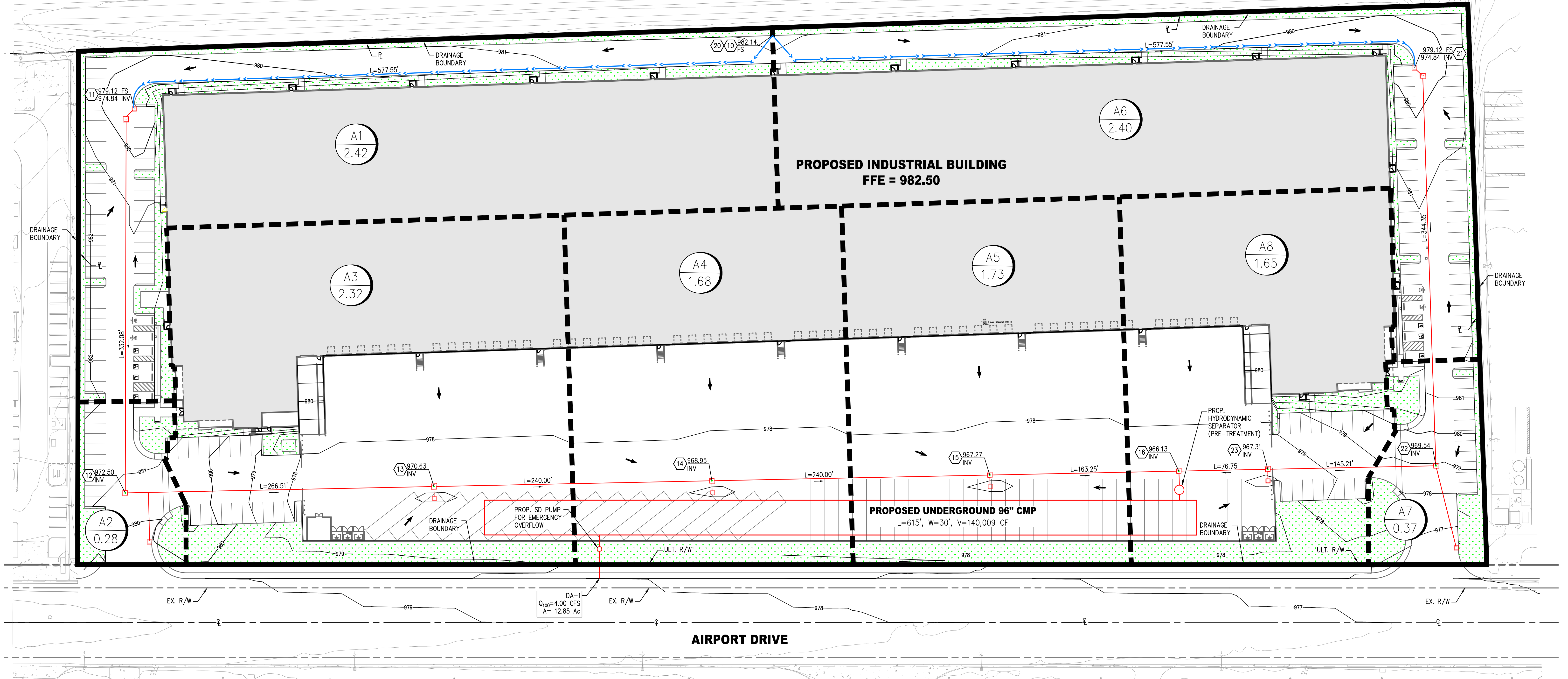
PREPARED BY:  
**WestLAND Group, Inc.** Land Surveyors • Civil Engineers • GIS  
 4150 CONCOURS, ONTARIO, CA 91764  
 PHONE: (909) 989-9789 FAX: (909) 989-9660  
 JOB NO: 2021-502

INDUSTRIAL BUILDING  
**PRE-DEVELOPMENT DRAINAGE MAP**  
 5355 AIRPORT DRIVE  
 CITY OF ONTARIO

DATE: Mar 2022  
 FIGURE NO.  
**1**



**SOUTHERN PACIFIC TRANSPORTATION COMPANY (RR)**



**HYDROLOGY SUMMARY TABLE**

SUBAREAS ID	RUNOFF COEFFICIENT "C"	TIME OF CONC. "Tc" (MIN.)	RAINFALL INTENSITY "I" (INCH/HOUR)	DRAINAGE AREA (AC)	RUNOFF FLOW RATE "Q <sub>100</sub> " (CFS)
A1	0.880	11.06	3.613	2.42	7.70
A2	0.879	12.05	3.433	0.28	0.45
A3	0.879	12.83	3.305	2.32	6.43
A4	0.878	13.43	3.215	1.68	4.34
A5	0.877	14.02	3.135	1.73	4.27
A6	0.880	11.06	3.613	2.40	7.63
A7	0.879	11.83	3.470	0.37	0.82
A8	0.879	12.14	3.416	1.65	4.82
TOTAL	--	14.39	--	12.85	35.24

**UNDERGROUND INFILTRATION CHAMBER SUMMARY**

PEAK FLOW IN-Q <sub>100</sub> (CFS)	PEAK FLOW OUT-Q <sub>100</sub> (CFS)	STORAGE VOLUME (CF)	MAXIMUM PONDING DEPTH (FT)	WATER SURFACE ELEVATION (FT)	FREEBOARD (FT)
35.24	4.00	140,009	10.00	8.00	2.00

**GENERAL NOTES**

- SEE PRELIMINARY HYDROLOGY REPORT, PREPARED BY WESTLAND GROUP, FOR THE COMPLETE POST-DEVELOPMENT HYDROLOGY CALCULATIONS.
- CALCULATIONS WERE BASED ON THE REQUIREMENTS ON THE SAN BERNARDINO HYDROLOGY MANUAL FOR 100 YEAR STORM.
- PROPOSED ON-SITE DRAINAGE SYSTEM LAYOUT IS PRELIMINARY.
- ALL FINISH ELEVATIONS AND INVERT ELEVATIONS ARE APPROXIMATE.
- EXISTING TOPOGRAPHIC SURVEY SHOWN ON PLAN WAS PREPARED BY WESTLAND GROUP, DATED NOVEMBER 30, 2021

**PROJECT SITE SUMMARY**

**AREA A**  
 SITE AREA: 12.85 ACRE  
 SOIL GROUP: A (PER USDA WEB SOIL SURVEY)  
 IMPERVIOUS: 89% (POST-DEVELOPMENT)  
 ISOHYETALS: 0.526" (2-YEAR 1 HOUR), 1.21" (100-YEAR 1 HOUR)  
 CN NUMBER: 32 (SOIL GROUP A)  
 FREQUENCY: 100 YEAR (FOR STORM DRAIN DESIGN)  
 METHOD: SAN BERNARDINO COUNTY HYDROLOGY MANUAL

**LEGEND**

- PROJECT DRAINAGE BOUNDARY/PROPERTY LINE
- SUB-AREA BOUNDARY
- FLOW PATH
- PROPOSED STORM DRAIN (PRELIMINARY)
- SUB-DRAINAGE AREA ID
- SUB-DRAINAGE AREA IDENTIFIER
- SUB-DRAINAGE SURFACE AREA (ACRE)
- FLOW ARROW
- SURFACE FLOW NODE
- PROPOSED BUILDING AREA
- PROPOSED LANDSCAPE AREA

**ABBREVIATIONS**

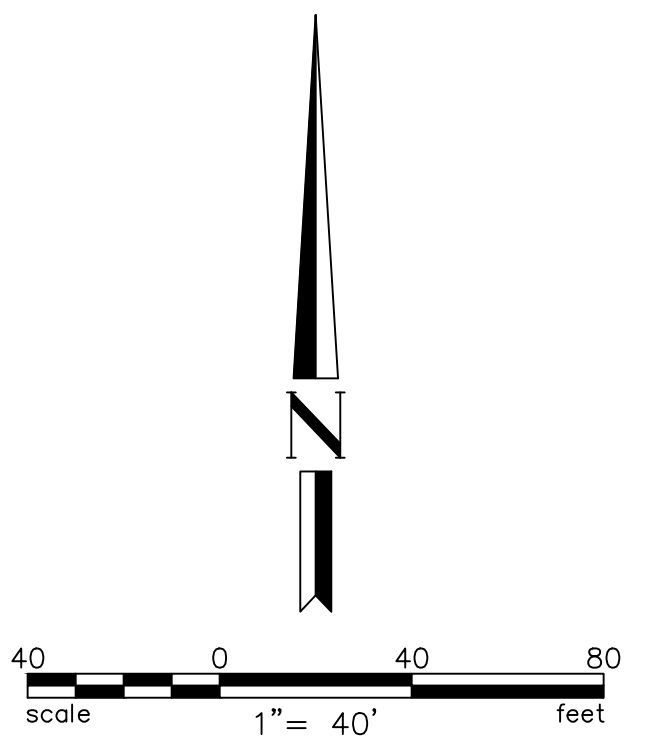
- CF CUBIC FEET
- CL OR C CENTERLINE
- CMP CORRUGATED METAL PIPE
- DA DRAINAGE AREA
- EX EXISTING
- FS FINISHED SURFACE ELEVATION
- HR HOUR
- IN INCH/INCHES
- INV INVERT ELEVATION
- L LENGTH
- R/W RIGHT OF WAY
- PL OR P PROPERTY LINE
- PROP PROPOSED
- SD STORM DRAIN
- TYP TYPICAL
- ULT ULTIMATE
- V VOLUME
- W WIDTH

PREPARED BY:  
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 PHONE: (909) 989-9789 FAX: (909) 989-9660  
 JOB NO: 2021-502

INDUSTRIAL BUILDING  
**POST-DEVELOPMENT DRAINAGE MAP**  
 5355 AIRPORT DRIVE  
 CITY OF ONTARIO

DATE: Mar 2022  
 FIGURE NO.

**2**



Drawing Name: P:\Year\_2021\2021-502\_5355 Airport - Prologis - Jam Carter\06 Engineering\Reports\HYDROLOGY\3\_Exhibits\PRELIMINARY\2021-502\_PRELIM\_EXH\_HYDR\_PROP.dwg

# APPENDIX B

## RATIONAL METHOD ANALYSIS (2/100 YEAR STORM)

RATIONAL METHOD ANALYSIS  
PRE-DEVELOPMENT CONDITIONS

San Bernardino County Rational Hydrology Program

(Hydrology Manual Date - August 1986)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2005 Version 7.1  
Rational Hydrology Study Date: 03/23/22

-----  
Job No. 2021-502  
5355 Airport Drive  
2 YR STORM RATIONAL METHOD  
PRE-CONDITION, AREA A  
-----

Program License Serial Number 6277

-----  
\*\*\*\*\* Hydrology Study Control Information \*\*\*\*\*

-----  
Rational hydrology study storm event year is 2.0  
Computed rainfall intensity:  
Storm year = 2.00 1 hour rainfall = 0.526 (In.)  
Slope used for rainfall intensity curve b = 0.6000  
Soil antecedent moisture condition (AMC) = 1

+++++  
Process from Point/Station 1.000 to Point/Station 1.100  
\*\*\*\* INITIAL AREA EVALUATION \*\*\*\*

-----  
COMMERCIAL subarea type  
Decimal fraction soil group A = 1.000  
Decimal fraction soil group B = 0.000  
Decimal fraction soil group C = 0.000  
Decimal fraction soil group D = 0.000  
SCS curve number for soil(AMC 2) = 32.00  
Adjusted SCS curve number for AMC 1 = 16.60  
Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.100(In/Hr)  
Initial subarea data:  
Initial area flow distance = 868.510(Ft.)  
Top (of initial area) elevation = 986.500(Ft.)  
Bottom (of initial area) elevation = 978.900(Ft.)  
Difference in elevation = 7.600(Ft.)  
Slope = 0.00875 s(%)= 0.88  
TC = k(0.304)\*[(length^3)/(elevation change)]^0.2  
Initial area time of concentration = 11.748 min.  
Rainfall intensity = 1.399(In/Hr) for a 2.0 year storm  
Effective runoff coefficient used for area (Q=KCIA) is C = 0.836

Subarea runoff = 7.589(CFS)  
Total initial stream area = 6.490(Ac.)  
Pervious area fraction = 0.100  
Initial area Fm value = 0.100(In/Hr)

++++  
Process from Point/Station 1.100 to Point/Station 2.100  
\*\*\*\* IMPROVED CHANNEL TRAVEL TIME \*\*\*\*

---

Upstream point elevation = 978.900(Ft.)  
Downstream point elevation = 978.000(Ft.)  
Channel length thru subarea = 158.290(Ft.)  
Channel base width = 5.000(Ft.)  
Slope or 'Z' of left channel bank = 50.000  
Slope or 'Z' of right channel bank = 50.000  
Manning's 'N' = 0.011  
Maximum depth of channel = 2.000(Ft.)  
Flow(q) thru subarea = 7.589(CFS)  
Depth of flow = 0.202(Ft.), Average velocity = 2.491(Ft/s)  
Channel flow top width = 25.185(Ft.)  
Flow Velocity = 2.49(Ft/s)  
Travel time = 1.06 min.  
Time of concentration = 12.81 min.  
Critical depth = 0.225(Ft.)

++++  
Process from Point/Station 1.100 to Point/Station 2.100  
\*\*\*\* CONFLUENCE OF MAIN STREAMS \*\*\*\*

---

The following data inside Main Stream is listed:

In Main Stream number: 1  
Stream flow area = 6.490(Ac.)  
Runoff from this stream = 7.589(CFS)  
Time of concentration = 12.81 min.  
Rainfall intensity = 1.329(In/Hr)  
Area averaged loss rate (Fm) = 0.1000(In/Hr)  
Area averaged Pervious ratio (Ap) = 0.1000  
Program is now starting with Main Stream No. 2

++++  
Process from Point/Station 2.000 to Point/Station 2.100  
\*\*\*\* INITIAL AREA EVALUATION \*\*\*\*

---

COMMERCIAL subarea type  
Decimal fraction soil group A = 1.000  
Decimal fraction soil group B = 0.000  
Decimal fraction soil group C = 0.000

Decimal fraction soil group D = 0.000  
 SCS curve number for soil(AMC 2) = 32.00  
 Adjusted SCS curve number for AMC 1 = 16.60  
 Pervious ratio(Ap) = 0.1000      Max loss rate(Fm)=      0.100(In/Hr)  
 Initial subarea data:  
 Initial area flow distance = 733.050(Ft.)  
 Top (of initial area) elevation = 981.100(Ft.)  
 Bottom (of initial area) elevation = 978.000(Ft.)  
 Difference in elevation = 3.100(Ft.)  
 Slope = 0.00423 s(%)= 0.42  
 TC = k(0.304)\*[(length^3)/(elevation change)]^0.2  
 Initial area time of concentration = 12.696 min.  
 Rainfall intensity = 1.336(In/Hr) for a 2.0 year storm  
 Effective runoff coefficient used for area (Q=KCIA) is C = 0.833  
 Subarea runoff = 4.737(CFS)  
 Total initial stream area = 4.260(Ac.)  
 Pervious area fraction = 0.100  
 Initial area Fm value = 0.100(In/Hr)

++++++  
 Process from Point/Station      2.000 to Point/Station      2.100  
 \*\*\*\* CONFLUENCE OF MAIN STREAMS \*\*\*\*

The following data inside Main Stream is listed:

In Main Stream number: 2  
 Stream flow area = 4.260(Ac.)  
 Runoff from this stream = 4.737(CFS)  
 Time of concentration = 12.70 min.  
 Rainfall intensity = 1.336(In/Hr)  
 Area averaged loss rate (Fm) = 0.1000(In/Hr)  
 Area averaged Pervious ratio (Ap) = 0.1000  
 Summary of stream data:

Stream No.	Flow rate (CFS)	Area (Ac.)	TC (min)	Fm (In/Hr)	Rainfall Intensity (In/Hr)
1	7.59	6.490	12.81	0.100	1.329
2	4.74	4.260	12.70	0.100	1.336
Qmax(1) =					
	1.000 *	1.000 *	7.589)	+	
	0.994 *	1.000 *	4.737)	+	12.299
Qmax(2) =					
	1.006 *	0.991 *	7.589)	+	
	1.000 *	1.000 *	4.737)	+	12.303

Total of 2 main streams to confluence:

Flow rates before confluence point:

8.589      5.737

Maximum flow rates at confluence using above data:

12.299            12.303

Area of streams before confluence:

6.490            4.260

Effective area values after confluence:

10.750           10.694

Results of confluence:

Total flow rate =    12.303(CFS)

Time of concentration =    12.696 min.

Effective stream area after confluence =    10.694(Ac.)

Study area average Pervious fraction(Ap) = 0.100

Study area average soil loss rate(Fm) =    0.100(In/Hr)

Study area total =    10.75(Ac.)

+++++  
Process from Point/Station            2.100 to Point/Station            3.100  
\*\*\*\* IMPROVED CHANNEL TRAVEL TIME \*\*\*\*

---

Upstream point elevation = 978.000(Ft.)  
Downstream point elevation = 976.800(Ft.)  
Channel length thru subarea = 305.110(Ft.)  
Channel base width            = 5.000(Ft.)  
Slope or 'Z' of left channel bank = 50.000  
Slope or 'Z' of right channel bank = 50.000  
Manning's 'N'            = 0.011  
Maximum depth of channel = 2.000(Ft.)  
Flow(q) thru subarea = 12.303(CFS)  
Depth of flow = 0.270(Ft.), Average velocity = 2.458(Ft/s)  
Channel flow top width = 32.034(Ft.)  
Flow Velocity = 2.46(Ft/s)  
Travel time = 2.07 min.  
Time of concentration = 14.77 min.  
Critical depth = 0.281(Ft.)

+++++  
Process from Point/Station            2.100 to Point/Station            3.100  
\*\*\*\* CONFLUENCE OF MAIN STREAMS \*\*\*\*

---

The following data inside Main Stream is listed:

In Main Stream number: 1

Stream flow area = 10.694(Ac.)

Runoff from this stream = 12.303(CFS)

Time of concentration = 14.77 min.

Rainfall intensity = 1.220(In/Hr)

Area averaged loss rate (Fm) = 0.1000(In/Hr)

Area averaged Pervious ratio (Ap) = 0.1000

Program is now starting with Main Stream No. 2

++++  
Process from Point/Station 3.000 to Point/Station 3.100  
\*\*\*\* INITIAL AREA EVALUATION \*\*\*\*

---

COMMERCIAL subarea type  
Decimal fraction soil group A = 1.000  
Decimal fraction soil group B = 0.000  
Decimal fraction soil group C = 0.000  
Decimal fraction soil group D = 0.000  
SCS curve number for soil(AMC 2) = 32.00  
Adjusted SCS curve number for AMC 1 = 16.60  
Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.100(In/Hr)  
Initial subarea data:  
Initial area flow distance = 528.580(Ft.)  
Top (of initial area) elevation = 986.000(Ft.)  
Bottom (of initial area) elevation = 976.800(Ft.)  
Difference in elevation = 9.200(Ft.)  
Slope = 0.01741 s(%)= 1.74  
TC = k(0.304)\*[(length^3)/(elevation change)]^0.2  
Initial area time of concentration = 8.394 min.  
Rainfall intensity = 1.712(In/Hr) for a 2.0 year storm  
Effective runoff coefficient used for area (Q=KCIA) is C = 0.847  
Subarea runoff = 3.047(CFS)  
Total initial stream area = 2.100(Ac.)  
Pervious area fraction = 0.100  
Initial area Fm value = 0.100(In/Hr)

++++  
Process from Point/Station 3.000 to Point/Station 3.100  
\*\*\*\* CONFLUENCE OF MAIN STREAMS \*\*\*\*

---

The following data inside Main Stream is listed:

In Main Stream number: 2  
Stream flow area = 2.100(Ac.)  
Runoff from this stream = 3.047(CFS)  
Time of concentration = 8.39 min.  
Rainfall intensity = 1.712(In/Hr)  
Area averaged loss rate (Fm) = 0.1000(In/Hr)  
Area averaged Pervious ratio (Ap) = 0.1000  
Summary of stream data:

Stream No.	Flow rate (CFS)	Area (Ac.)	TC (min)	Fm (In/Hr)	Rainfall Intensity (In/Hr)
1	12.30	10.694	14.77	0.100	1.220



2	3.05	2.100	8.39	0.100	1.712
Qmax(1) =					
	1.000 *	1.000 *	12.303)	+	
	0.695 *	1.000 *	3.047)	+ =	14.419
Qmax(2) =					
	1.439 *	0.569 *	12.303)	+	
	1.000 *	1.000 *	3.047)	+ =	13.114

Total of 2 main streams to confluence:

Flow rates before confluence point:

13.303            4.047

Maximum flow rates at confluence using above data:

14.419            13.114

Area of streams before confluence:

10.694            2.100

Effective area values after confluence:

12.794            8.179

Results of confluence:

Total flow rate = 14.419(CFS)

Time of concentration = 14.766 min.

Effective stream area after confluence = 12.794(Ac.)

Study area average Pervious fraction(Ap) = 0.100

Study area average soil loss rate(Fm) = 0.100(In/Hr)

Study area total = 12.79(Ac.)

End of computations, Total Study Area = 12.85 (Ac.)

The following figures may

be used for a unit hydrograph study of the same area.

Note: These figures do not consider reduced effective area effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.100

Area averaged SCS curve number = 32.0

San Bernardino County Rational Hydrology Program

(Hydrology Manual Date - August 1986)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2005 Version 7.1  
Rational Hydrology Study Date: 03/22/22

-----  
Job No. 2021-502  
5355 Airport Drive  
100 YR STORM RATIONAL METHOD  
PRE-CONDITION, AREA A  
-----

Program License Serial Number 6277

-----  
\*\*\*\*\* Hydrology Study Control Information \*\*\*\*\*  
-----

Rational hydrology study storm event year is 100.0  
Computed rainfall intensity:  
Storm year = 100.00 1 hour rainfall = 1.310 (In.)  
Slope used for rainfall intensity curve b = 0.6000  
Soil antecedent moisture condition (AMC) = 3

++++  
Process from Point/Station 1.000 to Point/Station 1.100  
\*\*\*\* INITIAL AREA EVALUATION \*\*\*\*

-----  
COMMERCIAL subarea type  
Decimal fraction soil group A = 1.000  
Decimal fraction soil group B = 0.000  
Decimal fraction soil group C = 0.000  
Decimal fraction soil group D = 0.000  
SCS curve number for soil(AMC 2) = 32.00  
Adjusted SCS curve number for AMC 3 = 52.00  
Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.079(In/Hr)  
Initial subarea data:  
Initial area flow distance = 868.510(Ft.)  
Top (of initial area) elevation = 986.500(Ft.)  
Bottom (of initial area) elevation = 978.900(Ft.)  
Difference in elevation = 7.600(Ft.)  
Slope = 0.00875 s(%)= 0.88  
TC = k(0.304)\*[(length^3)/(elevation change)]^0.2  
Initial area time of concentration = 11.748 min.  
Rainfall intensity = 3.485(In/Hr) for a 100.0 year storm  
Effective runoff coefficient used for area (Q=KCIA) is C = 0.880

Subarea runoff = 19.896(CFS)  
Total initial stream area = 6.490(Ac.)  
Pervious area fraction = 0.100  
Initial area Fm value = 0.079(In/Hr)

++++  
Process from Point/Station 1.100 to Point/Station 2.100  
\*\*\*\* IMPROVED CHANNEL TRAVEL TIME \*\*\*\*

---

Upstream point elevation = 978.900(Ft.)  
Downstream point elevation = 978.000(Ft.)  
Channel length thru subarea = 158.290(Ft.)  
Channel base width = 5.000(Ft.)  
Slope or 'Z' of left channel bank = 50.000  
Slope or 'Z' of right channel bank = 50.000  
Manning's 'N' = 0.011  
Maximum depth of channel = 2.000(Ft.)  
Flow(q) thru subarea = 19.896(CFS)  
Depth of flow = 0.307(Ft.), Average velocity = 3.186(Ft/s)  
Channel flow top width = 35.692(Ft.)  
Flow Velocity = 3.19(Ft/s)  
Travel time = 0.83 min.  
Time of concentration = 12.58 min.  
Critical depth = 0.352(Ft.)

++++  
Process from Point/Station 1.100 to Point/Station 2.100  
\*\*\*\* CONFLUENCE OF MAIN STREAMS \*\*\*\*

---

The following data inside Main Stream is listed:

In Main Stream number: 1  
Stream flow area = 6.490(Ac.)  
Runoff from this stream = 19.896(CFS)  
Time of concentration = 12.58 min.  
Rainfall intensity = 3.345(In/Hr)  
Area averaged loss rate (Fm) = 0.0785(In/Hr)  
Area averaged Pervious ratio (Ap) = 0.1000  
Program is now starting with Main Stream No. 2

++++  
Process from Point/Station 2.000 to Point/Station 2.100  
\*\*\*\* INITIAL AREA EVALUATION \*\*\*\*

---

COMMERCIAL subarea type  
Decimal fraction soil group A = 1.000  
Decimal fraction soil group B = 0.000  
Decimal fraction soil group C = 0.000

Decimal fraction soil group D = 0.000  
 SCS curve number for soil(AMC 2) = 32.00  
 Adjusted SCS curve number for AMC 3 = 52.00  
 Pervious ratio(Ap) = 0.1000      Max loss rate(Fm)=      0.079(In/Hr)  
 Initial subarea data:  
 Initial area flow distance = 733.050(Ft.)  
 Top (of initial area) elevation = 981.100(Ft.)  
 Bottom (of initial area) elevation = 978.000(Ft.)  
 Difference in elevation = 3.100(Ft.)  
 Slope = 0.00423 s(%)= 0.42  
 TC = k(0.304)\*[(length^3)/(elevation change)]^0.2  
 Initial area time of concentration = 12.696 min.  
 Rainfall intensity = 3.326(In/Hr) for a 100.0 year storm  
 Effective runoff coefficient used for area (Q=KCIA) is C = 0.879  
 Subarea runoff = 12.452(CFS)  
 Total initial stream area = 4.260(Ac.)  
 Pervious area fraction = 0.100  
 Initial area Fm value = 0.079(In/Hr)

++++++  
 Process from Point/Station      2.000 to Point/Station      2.100  
 \*\*\*\* CONFLUENCE OF MAIN STREAMS \*\*\*\*

The following data inside Main Stream is listed:

In Main Stream number: 2  
 Stream flow area = 4.260(Ac.)  
 Runoff from this stream = 12.452(CFS)  
 Time of concentration = 12.70 min.  
 Rainfall intensity = 3.326(In/Hr)  
 Area averaged loss rate (Fm) = 0.0785(In/Hr)  
 Area averaged Pervious ratio (Ap) = 0.1000  
 Summary of stream data:

Stream No.	Flow rate (CFS)	Area (Ac.)	TC (min)	Fm (In/Hr)	Rainfall Intensity (In/Hr)
1	19.90	6.490	12.58	0.079	3.345
2	12.45	4.260	12.70	0.079	3.326
Qmax(1) =					
	1.000 *	1.000 *	19.896)	+	
	1.006 *	0.991 *	12.452)	+	32.302
Qmax(2) =					
	0.994 *	1.000 *	19.896)	+	
	1.000 *	1.000 *	12.452)	+	32.232

Total of 2 main streams to confluence:

Flow rates before confluence point:

20.896      13.452

Maximum flow rates at confluence using above data:

32.302            32.232

Area of streams before confluence:

6.490            4.260

Effective area values after confluence:

10.710           10.750

Results of confluence:

Total flow rate =    32.302(CFS)

Time of concentration =    12.576 min.

Effective stream area after confluence =    10.710(Ac.)

Study area average Pervious fraction(Ap) =    0.100

Study area average soil loss rate(Fm) =    0.079(In/Hr)

Study area total =    10.75(Ac.)

++++  
Process from Point/Station            2.100 to Point/Station            3.100  
\*\*\*\* IMPROVED CHANNEL TRAVEL TIME \*\*\*\*

---

Upstream point elevation = 978.000(Ft.)  
Downstream point elevation = 976.800(Ft.)  
Channel length thru subarea = 305.110(Ft.)  
Channel base width            = 5.000(Ft.)  
Slope or 'Z' of left channel bank = 50.000  
Slope or 'Z' of right channel bank = 50.000  
Manning's 'N'            = 0.011  
Maximum depth of channel = 2.000(Ft.)  
Flow(q) thru subarea = 32.302(CFS)  
Depth of flow = 0.406(Ft.), Average velocity = 3.138(Ft/s)  
Channel flow top width = 45.647(Ft.)  
Flow Velocity = 3.14(Ft/s)  
Travel time = 1.62 min.  
Time of concentration = 14.20 min.  
Critical depth = 0.434(Ft.)

++++  
Process from Point/Station            2.100 to Point/Station            3.100  
\*\*\*\* CONFLUENCE OF MAIN STREAMS \*\*\*\*

---

The following data inside Main Stream is listed:

In Main Stream number: 1

Stream flow area = 10.710(Ac.)

Runoff from this stream = 32.302(CFS)

Time of concentration = 14.20 min.

Rainfall intensity = 3.111(In/Hr)

Area averaged loss rate (Fm) = 0.0785(In/Hr)

Area averaged Pervious ratio (Ap) = 0.1000

Program is now starting with Main Stream No. 2

++++  
Process from Point/Station 3.000 to Point/Station 3.100  
\*\*\*\* INITIAL AREA EVALUATION \*\*\*\*

---

COMMERCIAL subarea type  
Decimal fraction soil group A = 1.000  
Decimal fraction soil group B = 0.000  
Decimal fraction soil group C = 0.000  
Decimal fraction soil group D = 0.000  
SCS curve number for soil(AMC 2) = 32.00  
Adjusted SCS curve number for AMC 3 = 52.00  
Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.079(In/Hr)  
Initial subarea data:  
Initial area flow distance = 528.580(Ft.)  
Top (of initial area) elevation = 986.000(Ft.)  
Bottom (of initial area) elevation = 976.800(Ft.)  
Difference in elevation = 9.200(Ft.)  
Slope = 0.01741 s(%)= 1.74  
TC = k(0.304)\*[(length^3)/(elevation change)]^0.2  
Initial area time of concentration = 8.394 min.  
Rainfall intensity = 4.264(In/Hr) for a 100.0 year storm  
Effective runoff coefficient used for area (Q=KCIA) is C = 0.883  
Subarea runoff = 7.910(CFS)  
Total initial stream area = 2.100(Ac.)  
Pervious area fraction = 0.100  
Initial area Fm value = 0.079(In/Hr)

++++  
Process from Point/Station 3.000 to Point/Station 3.100  
\*\*\*\* CONFLUENCE OF MAIN STREAMS \*\*\*\*

---

The following data inside Main Stream is listed:

In Main Stream number: 2  
Stream flow area = 2.100(Ac.)  
Runoff from this stream = 7.910(CFS)  
Time of concentration = 8.39 min.  
Rainfall intensity = 4.264(In/Hr)  
Area averaged loss rate (Fm) = 0.0785(In/Hr)  
Area averaged Pervious ratio (Ap) = 0.1000  
Summary of stream data:

Stream No.	Flow rate (CFS)	Area (Ac.)	TC (min)	Fm (In/Hr)	Rainfall Intensity (In/Hr)
1	32.30	10.710	14.20	0.079	3.111

2	7.91	2.100	8.39	0.079	4.264
Qmax(1) =					
	1.000 *	1.000 *	32.302)	+	
	0.725 *	1.000 *	7.910)	+ =	38.033
Qmax(2) =					
	1.380 *	0.591 *	32.302)	+	
	1.000 *	1.000 *	7.910)	+ =	34.272

Total of 2 main streams to confluence:

Flow rates before confluence point:

33.302          8.910

Maximum flow rates at confluence using above data:

38.033          34.272

Area of streams before confluence:

10.710          2.100

Effective area values after confluence:

12.810          8.432

Results of confluence:

Total flow rate = 38.033(CFS)

Time of concentration = 14.197 min.

Effective stream area after confluence = 12.810(Ac.)

Study area average Pervious fraction(Ap) = 0.100

Study area average soil loss rate(Fm) = 0.079(In/Hr)

Study area total = 12.81(Ac.)

End of computations, Total Study Area = 12.85 (Ac.)

The following figures may

be used for a unit hydrograph study of the same area.

Note: These figures do not consider reduced effective area effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.100

Area averaged SCS curve number = 32.0

RATIONAL METHOD ANALYSIS  
POST-DEVELOPMENT CONDITIONS



San Bernardino County Rational Hydrology Program

(Hydrology Manual Date - August 1986)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2005 Version 7.1  
Rational Hydrology Study Date: 03/23/22

-----  
Job No. 2021-502  
5355 Airport Drive  
2 YR STORM RATIONAL METHOD  
POST-CONDITION, AREA A  
-----

Program License Serial Number 6277

-----  
\*\*\*\*\* Hydrology Study Control Information \*\*\*\*\*

-----  
Rational hydrology study storm event year is 2.0  
Computed rainfall intensity:  
Storm year = 2.00 1 hour rainfall = 0.526 (In.)  
Slope used for rainfall intensity curve b = 0.6000  
Soil antecedent moisture condition (AMC) = 1

+++++  
Process from Point/Station 10.000 to Point/Station 11.000  
\*\*\*\* INITIAL AREA EVALUATION \*\*\*\*

-----  
COMMERCIAL subarea type  
Decimal fraction soil group A = 1.000  
Decimal fraction soil group B = 0.000  
Decimal fraction soil group C = 0.000  
Decimal fraction soil group D = 0.000  
SCS curve number for soil(AMC 2) = 32.00  
Adjusted SCS curve number for AMC 1 = 16.60  
Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.100(In/Hr)  
Initial subarea data:  
Initial area flow distance = 577.550(Ft.)  
Top (of initial area) elevation = 982.140(Ft.)  
Bottom (of initial area) elevation = 979.120(Ft.)  
Difference in elevation = 3.020(Ft.)  
Slope = 0.00523 s(%)= 0.52  
TC = k(0.304)\*[(length^3)/(elevation change)]^0.2  
Initial area time of concentration = 11.062 min.  
Rainfall intensity = 1.451(In/Hr) for a 2.0 year storm  
Effective runoff coefficient used for area (Q=KCIA) is C = 0.838

Subarea runoff = 2.942(CFS)  
Total initial stream area = 2.420(Ac.)  
Pervious area fraction = 0.100  
Initial area Fm value = 0.100(In/Hr)

++++  
Process from Point/Station 11.000 to Point/Station 12.000  
\*\*\*\* PIPEFLOW TRAVEL TIME (Program estimated size) \*\*\*\*

---

Upstream point/station elevation = 974.840(Ft.)  
Downstream point/station elevation = 972.500(Ft.)  
Pipe length = 332.08(Ft.) Manning's N = 0.013  
No. of pipes = 1 Required pipe flow = 2.942(CFS)  
Nearest computed pipe diameter = 12.00(In.)  
Calculated individual pipe flow = 2.942(CFS)  
Normal flow depth in pipe = 9.66(In.)  
Flow top width inside pipe = 9.51(In.)  
Critical Depth = 8.82(In.)  
Pipe flow velocity = 4.34(Ft/s)  
Travel time through pipe = 1.28 min.  
Time of concentration (TC) = 12.34 min.

++++  
Process from Point/Station 12.000 to Point/Station 12.000  
\*\*\*\* SUBAREA FLOW ADDITION \*\*\*\*

---

COMMERCIAL subarea type  
Decimal fraction soil group A = 1.000  
Decimal fraction soil group B = 0.000  
Decimal fraction soil group C = 0.000  
Decimal fraction soil group D = 0.000  
SCS curve number for soil(AMC 2) = 32.00  
Adjusted SCS curve number for AMC 1 = 16.60  
Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.100(In/Hr)  
Time of concentration = 12.34 min.  
Rainfall intensity = 1.359(In/Hr) for a 2.0 year storm  
Effective runoff coefficient used for area,(total area with modified  
rational method)(Q=KCIA) is C = 0.834  
Subarea runoff = 0.117(CFS) for 0.280(Ac.)  
Total runoff = 3.059(CFS)  
Effective area this stream = 2.70(Ac.)  
Total Study Area (Main Stream No. 1) = 2.70(Ac.)  
Area averaged Fm value = 0.100(In/Hr)

++++  
Process from Point/Station 12.000 to Point/Station 13.000  
\*\*\*\* PIPEFLOW TRAVEL TIME (Program estimated size) \*\*\*\*

---

Upstream point/station elevation = 972.500(Ft.)  
Downstream point/station elevation = 970.630(Ft.)  
Pipe length = 266.51(Ft.) Manning's N = 0.013  
No. of pipes = 1 Required pipe flow = 3.059(CFS)  
Nearest computed pipe diameter = 15.00(In.)  
Calculated individual pipe flow = 3.059(CFS)  
Normal flow depth in pipe = 8.07(In.)  
Flow top width inside pipe = 14.96(In.)  
Critical Depth = 8.45(In.)  
Pipe flow velocity = 4.54(Ft/s)  
Travel time through pipe = 0.98 min.  
Time of concentration (TC) = 13.31 min.

++++  
Process from Point/Station 13.000 to Point/Station 13.000  
\*\*\*\* SUBAREA FLOW ADDITION \*\*\*\*

---

COMMERCIAL subarea type  
Decimal fraction soil group A = 1.000  
Decimal fraction soil group B = 0.000  
Decimal fraction soil group C = 0.000  
Decimal fraction soil group D = 0.000  
SCS curve number for soil(AMC 2) = 32.00  
Adjusted SCS curve number for AMC 1 = 16.60  
Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.100(In/Hr)  
Time of concentration = 13.31 min.  
Rainfall intensity = 1.298(In/Hr) for a 2.0 year storm  
Effective runoff coefficient used for area,(total area with modified  
rational method)(Q=KCIA) is C = 0.831  
Subarea runoff = 2.354(CFS) for 2.320(Ac.)  
Total runoff = 5.413(CFS)  
Effective area this stream = 5.02(Ac.)  
Total Study Area (Main Stream No. 1) = 5.02(Ac.)  
Area averaged Fm value = 0.100(In/Hr)

++++  
Process from Point/Station 13.000 to Point/Station 14.000  
\*\*\*\* PIPEFLOW TRAVEL TIME (Program estimated size) \*\*\*\*

---

Upstream point/station elevation = 970.630(Ft.)  
Downstream point/station elevation = 968.950(Ft.)  
Pipe length = 240.00(Ft.) Manning's N = 0.013  
No. of pipes = 1 Required pipe flow = 5.413(CFS)  
Nearest computed pipe diameter = 18.00(In.)  
Calculated individual pipe flow = 5.413(CFS)  
Normal flow depth in pipe = 10.22(In.)  
Flow top width inside pipe = 17.83(In.)

Critical Depth = 10.76(In.)  
Pipe flow velocity = 5.23(Ft/s)  
Travel time through pipe = 0.76 min.  
Time of concentration (TC) = 14.08 min.

++++  
Process from Point/Station 14.000 to Point/Station 14.000  
\*\*\*\* SUBAREA FLOW ADDITION \*\*\*\*

---

COMMERCIAL subarea type  
Decimal fraction soil group A = 1.000  
Decimal fraction soil group B = 0.000  
Decimal fraction soil group C = 0.000  
Decimal fraction soil group D = 0.000  
SCS curve number for soil(AMC 2) = 32.00  
Adjusted SCS curve number for AMC 1 = 16.60  
Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.100(In/Hr)  
Time of concentration = 14.08 min.  
Rainfall intensity = 1.255(In/Hr) for a 2.0 year storm  
Effective runoff coefficient used for area,(total area with modified  
rational method)(Q=KCIA) is C = 0.828  
Subarea runoff = 1.553(CFS) for 1.680(Ac.)  
Total runoff = 6.966(CFS)  
Effective area this stream = 6.70(Ac.)  
Total Study Area (Main Stream No. 1) = 6.70(Ac.)  
Area averaged Fm value = 0.100(In/Hr)

++++  
Process from Point/Station 14.000 to Point/Station 15.000  
\*\*\*\* PIPEFLOW TRAVEL TIME (Program estimated size) \*\*\*\*

---

Upstream point/station elevation = 968.950(Ft.)  
Downstream point/station elevation = 967.270(Ft.)  
Pipe length = 240.00(Ft.) Manning's N = 0.013  
No. of pipes = 1 Required pipe flow = 6.966(CFS)  
Nearest computed pipe diameter = 18.00(In.)  
Calculated individual pipe flow = 6.966(CFS)  
Normal flow depth in pipe = 12.09(In.)  
Flow top width inside pipe = 16.90(In.)  
Critical Depth = 12.26(In.)  
Pipe flow velocity = 5.52(Ft/s)  
Travel time through pipe = 0.73 min.  
Time of concentration (TC) = 14.80 min.

++++  
Process from Point/Station 15.000 to Point/Station 15.000  
\*\*\*\* SUBAREA FLOW ADDITION \*\*\*\*

---

COMMERCIAL subarea type  
Decimal fraction soil group A = 1.000  
Decimal fraction soil group B = 0.000  
Decimal fraction soil group C = 0.000  
Decimal fraction soil group D = 0.000  
SCS curve number for soil(AMC 2) = 32.00  
Adjusted SCS curve number for AMC 1 = 16.60  
Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.100(In/Hr)  
Time of concentration = 14.80 min.  
Rainfall intensity = 1.218(In/Hr) for a 2.0 year storm  
Effective runoff coefficient used for area,(total area with modified  
rational method)(Q=KCIA) is C = 0.826  
Subarea runoff = 1.516(CFS) for 1.730(Ac.)  
Total runoff = 8.482(CFS)  
Effective area this stream = 8.43(Ac.)  
Total Study Area (Main Stream No. 1) = 8.43(Ac.)  
Area averaged Fm value = 0.100(In/Hr)

++++  
Process from Point/Station 15.000 to Point/Station 16.000  
\*\*\*\* PIPEFLOW TRAVEL TIME (Program estimated size) \*\*\*\*

---

Upstream point/station elevation = 967.270(Ft.)  
Downstream point/station elevation = 966.130(Ft.)  
Pipe length = 163.25(Ft.) Manning's N = 0.013  
No. of pipes = 1 Required pipe flow = 8.482(CFS)  
Nearest computed pipe diameter = 18.00(In.)  
Calculated individual pipe flow = 8.482(CFS)  
Normal flow depth in pipe = 14.23(In.)  
Flow top width inside pipe = 14.65(In.)  
Critical Depth = 13.54(In.)  
Pipe flow velocity = 5.66(Ft/s)  
Travel time through pipe = 0.48 min.  
Time of concentration (TC) = 15.29 min.

++++  
Process from Point/Station 15.000 to Point/Station 16.000  
\*\*\*\* CONFLUENCE OF MAIN STREAMS \*\*\*\*

---

The following data inside Main Stream is listed:  
In Main Stream number: 1  
Stream flow area = 8.430(Ac.)  
Runoff from this stream = 8.482(CFS)  
Time of concentration = 15.29 min.  
Rainfall intensity = 1.195(In/Hr)  
Area averaged loss rate (Fm) = 0.1000(In/Hr)  
Area averaged Pervious ratio (Ap) = 0.1000

Program is now starting with Main Stream No. 2

++++  
Process from Point/Station 20.000 to Point/Station 21.000  
\*\*\*\* INITIAL AREA EVALUATION \*\*\*\*

---

COMMERCIAL subarea type  
Decimal fraction soil group A = 1.000  
Decimal fraction soil group B = 0.000  
Decimal fraction soil group C = 0.000  
Decimal fraction soil group D = 0.000  
SCS curve number for soil(AMC 2) = 32.00  
Adjusted SCS curve number for AMC 1 = 16.60  
Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.100(In/Hr)  
Initial subarea data:  
Initial area flow distance = 577.550(Ft.)  
Top (of initial area) elevation = 982.140(Ft.)  
Bottom (of initial area) elevation = 979.120(Ft.)  
Difference in elevation = 3.020(Ft.)  
Slope = 0.00523 s(%)= 0.52  
TC =  $k(0.304)*[(length^3)/(elevation\ change)]^{0.2}$   
Initial area time of concentration = 11.062 min.  
Rainfall intensity = 1.451(In/Hr) for a 2.0 year storm  
Effective runoff coefficient used for area (Q=KCIA) is C = 0.838  
Subarea runoff = 2.918(CFS)  
Total initial stream area = 2.400(Ac.)  
Pervious area fraction = 0.100  
Initial area Fm value = 0.100(In/Hr)

++++  
Process from Point/Station 21.000 to Point/Station 22.000  
\*\*\*\* PIPEFLOW TRAVEL TIME (Program estimated size) \*\*\*\*

---

Upstream point/station elevation = 974.840(Ft.)  
Downstream point/station elevation = 969.540(Ft.)  
Pipe length = 344.35(Ft.) Manning's N = 0.013  
No. of pipes = 1 Required pipe flow = 2.918(CFS)  
Nearest computed pipe diameter = 12.00(In.)  
Calculated individual pipe flow = 2.918(CFS)  
Normal flow depth in pipe = 7.11(In.)  
Flow top width inside pipe = 11.79(In.)  
Critical Depth = 8.78(In.)  
Pipe flow velocity = 6.01(Ft/s)  
Travel time through pipe = 0.95 min.  
Time of concentration (TC) = 12.02 min.

++++

Process from Point/Station 22.000 to Point/Station 22.000  
\*\*\*\* SUBAREA FLOW ADDITION \*\*\*\*

---

COMMERCIAL subarea type  
Decimal fraction soil group A = 1.000  
Decimal fraction soil group B = 0.000  
Decimal fraction soil group C = 0.000  
Decimal fraction soil group D = 0.000  
SCS curve number for soil(AMC 2) = 32.00  
Adjusted SCS curve number for AMC 1 = 16.60  
Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.100(In/Hr)  
Time of concentration = 12.02 min.  
Rainfall intensity = 1.380(In/Hr) for a 2.0 year storm  
Effective runoff coefficient used for area,(total area with modified  
rational method)(Q=KCIA) is C = 0.835  
Subarea runoff = 0.275(CFS) for 0.370(Ac.)  
Total runoff = 3.192(CFS)  
Effective area this stream = 2.77(Ac.)  
Total Study Area (Main Stream No. 2) = 11.20(Ac.)  
Area averaged Fm value = 0.100(In/Hr)

++++  
Process from Point/Station 22.000 to Point/Station 23.000  
\*\*\*\* PIPEFLOW TRAVEL TIME (Program estimated size) \*\*\*\*

---

Upstream point/station elevation = 969.540(Ft.)  
Downstream point/station elevation = 967.310(Ft.)  
Pipe length = 145.21(Ft.) Manning's N = 0.013  
No. of pipes = 1 Required pipe flow = 3.192(CFS)  
Nearest computed pipe diameter = 12.00(In.)  
Calculated individual pipe flow = 3.192(CFS)  
Normal flow depth in pipe = 7.56(In.)  
Flow top width inside pipe = 11.59(In.)  
Critical Depth = 9.18(In.)  
Pipe flow velocity = 6.12(Ft/s)  
Travel time through pipe = 0.40 min.  
Time of concentration (TC) = 12.41 min.

++++  
Process from Point/Station 23.000 to Point/Station 23.000  
\*\*\*\* SUBAREA FLOW ADDITION \*\*\*\*

---

COMMERCIAL subarea type  
Decimal fraction soil group A = 1.000  
Decimal fraction soil group B = 0.000  
Decimal fraction soil group C = 0.000  
Decimal fraction soil group D = 0.000  
SCS curve number for soil(AMC 2) = 32.00

Adjusted SCS curve number for AMC 1 = 16.60  
Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.100(In/Hr)  
Time of concentration = 12.41 min.  
Rainfall intensity = 1.354(In/Hr) for a 2.0 year storm  
Effective runoff coefficient used for area,(total area with modified  
rational method)(Q=KCIA) is C = 0.834  
Subarea runoff = 1.796(CFS) for 1.650(Ac.)  
Total runoff = 4.988(CFS)  
Effective area this stream = 4.42(Ac.)  
Total Study Area (Main Stream No. 2) = 12.85(Ac.)  
Area averaged Fm value = 0.100(In/Hr)

++++  
Process from Point/Station 23.000 to Point/Station 16.000  
\*\*\*\* PIPEFLOW TRAVEL TIME (Program estimated size) \*\*\*\*

---

Upstream point/station elevation = 967.310(Ft.)  
Downstream point/station elevation = 966.130(Ft.)  
Pipe length = 76.75(Ft.) Manning's N = 0.013  
No. of pipes = 1 Required pipe flow = 4.988(CFS)  
Nearest computed pipe diameter = 15.00(In.)  
Calculated individual pipe flow = 4.988(CFS)  
Normal flow depth in pipe = 8.57(In.)  
Flow top width inside pipe = 14.85(In.)  
Critical Depth = 10.86(In.)  
Pipe flow velocity = 6.88(Ft/s)  
Travel time through pipe = 0.19 min.  
Time of concentration (TC) = 12.60 min.

++++  
Process from Point/Station 23.000 to Point/Station 16.000  
\*\*\*\* CONFLUENCE OF MAIN STREAMS \*\*\*\*

---

The following data inside Main Stream is listed:

In Main Stream number: 2  
Stream flow area = 4.420(Ac.)  
Runoff from this stream = 4.988(CFS)  
Time of concentration = 12.60 min.  
Rainfall intensity = 1.342(In/Hr)  
Area averaged loss rate (Fm) = 0.1000(In/Hr)  
Area averaged Pervious ratio (Ap) = 0.1000  
Summary of stream data:

Stream No.	Flow rate (CFS)	Area (Ac.)	TC (min)	Fm (In/Hr)	Rainfall Intensity (In/Hr)
1	8.48	8.430	15.29	0.100	1.195



2	4.99	4.420	12.60	0.100	1.342
Qmax(1) =					
	1.000 *	1.000 *	8.482)	+	
	0.882 *	1.000 *	4.988)	+ =	12.880
Qmax(2) =					
	1.134 *	0.824 *	8.482)	+	
	1.000 *	1.000 *	4.988)	+ =	12.917

Total of 2 main streams to confluence:

Flow rates before confluence point:

9.482            5.988

Maximum flow rates at confluence using above data:

12.880            12.917

Area of streams before confluence:

8.430            4.420

Effective area values after confluence:

12.850            11.368

Results of confluence:

Total flow rate = 12.917(CFS)

Time of concentration = 12.598 min.

Effective stream area after confluence = 11.368(Ac.)

Study area average Pervious fraction(Ap) = 0.100

Study area average soil loss rate(Fm) = 0.100(In/Hr)

Study area total = 12.85(Ac.)

End of computations, Total Study Area = 12.85 (Ac.)

The following figures may

be used for a unit hydrograph study of the same area.

Note: These figures do not consider reduced effective area effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.100

Area averaged SCS curve number = 32.0

San Bernardino County Rational Hydrology Program

(Hydrology Manual Date - August 1986)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2005 Version 7.1  
Rational Hydrology Study Date: 03/23/22

-----  
Job No. 2021-502  
5355 Airport Drive  
100 YR STORM RATIONAL METHOD  
POST-CONDITION, AREA A  
-----

Program License Serial Number 6277

-----  
\*\*\*\*\* Hydrology Study Control Information \*\*\*\*\*

-----  
Rational hydrology study storm event year is 100.0  
Computed rainfall intensity:  
Storm year = 100.00 1 hour rainfall = 1.310 (In.)  
Slope used for rainfall intensity curve b = 0.6000  
Soil antecedent moisture condition (AMC) = 3

+++++  
Process from Point/Station 10.000 to Point/Station 11.000  
\*\*\*\* INITIAL AREA EVALUATION \*\*\*\*

-----  
COMMERCIAL subarea type  
Decimal fraction soil group A = 1.000  
Decimal fraction soil group B = 0.000  
Decimal fraction soil group C = 0.000  
Decimal fraction soil group D = 0.000  
SCS curve number for soil(AMC 2) = 32.00  
Adjusted SCS curve number for AMC 3 = 52.00  
Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.079(In/Hr)  
Initial subarea data:  
Initial area flow distance = 577.550(Ft.)  
Top (of initial area) elevation = 982.140(Ft.)  
Bottom (of initial area) elevation = 979.120(Ft.)  
Difference in elevation = 3.020(Ft.)  
Slope = 0.00523 s(%)= 0.52  
TC = k(0.304)\*[(length^3)/(elevation change)]^0.2  
Initial area time of concentration = 11.062 min.  
Rainfall intensity = 3.613(In/Hr) for a 100.0 year storm  
Effective runoff coefficient used for area (Q=KCIA) is C = 0.880

Subarea runoff = 7.698(CFS)  
Total initial stream area = 2.420(Ac.)  
Pervious area fraction = 0.100  
Initial area Fm value = 0.079(In/Hr)

++++  
Process from Point/Station 11.000 to Point/Station 12.000  
\*\*\*\* PIPEFLOW TRAVEL TIME (Program estimated size) \*\*\*\*

---

Upstream point/station elevation = 974.840(Ft.)  
Downstream point/station elevation = 972.500(Ft.)  
Pipe length = 332.08(Ft.) Manning's N = 0.013  
No. of pipes = 1 Required pipe flow = 7.698(CFS)  
Nearest computed pipe diameter = 18.00(In.)  
Calculated individual pipe flow = 7.698(CFS)  
Normal flow depth in pipe = 13.02(In.)  
Flow top width inside pipe = 16.11(In.)  
Critical Depth = 12.90(In.)  
Pipe flow velocity = 5.62(Ft/s)  
Travel time through pipe = 0.98 min.  
Time of concentration (TC) = 12.05 min.

++++  
Process from Point/Station 12.000 to Point/Station 12.000  
\*\*\*\* SUBAREA FLOW ADDITION \*\*\*\*

---

COMMERCIAL subarea type  
Decimal fraction soil group A = 1.000  
Decimal fraction soil group B = 0.000  
Decimal fraction soil group C = 0.000  
Decimal fraction soil group D = 0.000  
SCS curve number for soil(AMC 2) = 32.00  
Adjusted SCS curve number for AMC 3 = 52.00  
Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.079(In/Hr)  
Time of concentration = 12.05 min.  
Rainfall intensity = 3.433(In/Hr) for a 100.0 year storm  
Effective runoff coefficient used for area,(total area with modified  
rational method)(Q=KCIA) is C = 0.879  
Subarea runoff = 0.453(CFS) for 0.280(Ac.)  
Total runoff = 8.151(CFS)  
Effective area this stream = 2.70(Ac.)  
Total Study Area (Main Stream No. 1) = 2.70(Ac.)  
Area averaged Fm value = 0.079(In/Hr)

++++  
Process from Point/Station 12.000 to Point/Station 13.000  
\*\*\*\* PIPEFLOW TRAVEL TIME (Program estimated size) \*\*\*\*

---

Upstream point/station elevation = 972.500(Ft.)  
Downstream point/station elevation = 970.630(Ft.)  
Pipe length = 266.51(Ft.) Manning's N = 0.013  
No. of pipes = 1 Required pipe flow = 8.151(CFS)  
Nearest computed pipe diameter = 18.00(In.)  
Calculated individual pipe flow = 8.151(CFS)  
Normal flow depth in pipe = 13.69(In.)  
Flow top width inside pipe = 15.37(In.)  
Critical Depth = 13.26(In.)  
Pipe flow velocity = 5.65(Ft/s)  
Travel time through pipe = 0.79 min.  
Time of concentration (TC) = 12.83 min.

++++  
Process from Point/Station 13.000 to Point/Station 13.000  
\*\*\*\* SUBAREA FLOW ADDITION \*\*\*\*

---

COMMERCIAL subarea type  
Decimal fraction soil group A = 1.000  
Decimal fraction soil group B = 0.000  
Decimal fraction soil group C = 0.000  
Decimal fraction soil group D = 0.000  
SCS curve number for soil(AMC 2) = 32.00  
Adjusted SCS curve number for AMC 3 = 52.00  
Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.079(In/Hr)  
Time of concentration = 12.83 min.  
Rainfall intensity = 3.305(In/Hr) for a 100.0 year storm  
Effective runoff coefficient used for area,(total area with modified  
rational method)(Q=KCIA) is C = 0.879  
Subarea runoff = 6.427(CFS) for 2.320(Ac.)  
Total runoff = 14.578(CFS)  
Effective area this stream = 5.02(Ac.)  
Total Study Area (Main Stream No. 1) = 5.02(Ac.)  
Area averaged Fm value = 0.079(In/Hr)

++++  
Process from Point/Station 13.000 to Point/Station 14.000  
\*\*\*\* PIPEFLOW TRAVEL TIME (Program estimated size) \*\*\*\*

---

Upstream point/station elevation = 970.630(Ft.)  
Downstream point/station elevation = 968.950(Ft.)  
Pipe length = 240.00(Ft.) Manning's N = 0.013  
No. of pipes = 1 Required pipe flow = 14.578(CFS)  
Nearest computed pipe diameter = 24.00(In.)  
Calculated individual pipe flow = 14.578(CFS)  
Normal flow depth in pipe = 15.80(In.)  
Flow top width inside pipe = 22.77(In.)

Critical Depth = 16.52(In.)  
Pipe flow velocity = 6.65(Ft/s)  
Travel time through pipe = 0.60 min.  
Time of concentration (TC) = 13.43 min.

++++  
Process from Point/Station 14.000 to Point/Station 14.000  
\*\*\*\* SUBAREA FLOW ADDITION \*\*\*\*

---

COMMERCIAL subarea type  
Decimal fraction soil group A = 1.000  
Decimal fraction soil group B = 0.000  
Decimal fraction soil group C = 0.000  
Decimal fraction soil group D = 0.000  
SCS curve number for soil(AMC 2) = 32.00  
Adjusted SCS curve number for AMC 3 = 52.00  
Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.079(In/Hr)  
Time of concentration = 13.43 min.  
Rainfall intensity = 3.215(In/Hr) for a 100.0 year storm  
Effective runoff coefficient used for area,(total area with modified  
rational method)(Q=KCIA) is C = 0.878  
Subarea runoff = 4.338(CFS) for 1.680(Ac.)  
Total runoff = 18.916(CFS)  
Effective area this stream = 6.70(Ac.)  
Total Study Area (Main Stream No. 1) = 6.70(Ac.)  
Area averaged Fm value = 0.079(In/Hr)

++++  
Process from Point/Station 14.000 to Point/Station 15.000  
\*\*\*\* PIPEFLOW TRAVEL TIME (Program estimated size) \*\*\*\*

---

Upstream point/station elevation = 968.950(Ft.)  
Downstream point/station elevation = 967.270(Ft.)  
Pipe length = 240.00(Ft.) Manning's N = 0.013  
No. of pipes = 1 Required pipe flow = 18.916(CFS)  
Nearest computed pipe diameter = 24.00(In.)  
Calculated individual pipe flow = 18.916(CFS)  
Normal flow depth in pipe = 19.64(In.)  
Flow top width inside pipe = 18.51(In.)  
Critical Depth = 18.77(In.)  
Pipe flow velocity = 6.87(Ft/s)  
Travel time through pipe = 0.58 min.  
Time of concentration (TC) = 14.02 min.

++++  
Process from Point/Station 15.000 to Point/Station 15.000  
\*\*\*\* SUBAREA FLOW ADDITION \*\*\*\*

---

COMMERCIAL subarea type  
Decimal fraction soil group A = 1.000  
Decimal fraction soil group B = 0.000  
Decimal fraction soil group C = 0.000  
Decimal fraction soil group D = 0.000  
SCS curve number for soil(AMC 2) = 32.00  
Adjusted SCS curve number for AMC 3 = 52.00  
Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.079(In/Hr)  
Time of concentration = 14.02 min.  
Rainfall intensity = 3.135(In/Hr) for a 100.0 year storm  
Effective runoff coefficient used for area,(total area with modified  
rational method)(Q=KCIA) is C = 0.877  
Subarea runoff = 4.271(CFS) for 1.730(Ac.)  
Total runoff = 23.187(CFS)  
Effective area this stream = 8.43(Ac.)  
Total Study Area (Main Stream No. 1) = 8.43(Ac.)  
Area averaged Fm value = 0.079(In/Hr)

+++++  
Process from Point/Station 15.000 to Point/Station 16.000  
\*\*\*\* PIPEFLOW TRAVEL TIME (Program estimated size) \*\*\*\*

---

Upstream point/station elevation = 967.270(Ft.)  
Downstream point/station elevation = 966.130(Ft.)  
Pipe length = 163.25(Ft.) Manning's N = 0.013  
No. of pipes = 1 Required pipe flow = 23.187(CFS)  
Nearest computed pipe diameter = 27.00(In.)  
Calculated individual pipe flow = 23.187(CFS)  
Normal flow depth in pipe = 19.95(In.)  
Flow top width inside pipe = 23.72(In.)  
Critical Depth = 20.23(In.)  
Pipe flow velocity = 7.36(Ft/s)  
Travel time through pipe = 0.37 min.  
Time of concentration (TC) = 14.39 min.

+++++  
Process from Point/Station 15.000 to Point/Station 16.000  
\*\*\*\* CONFLUENCE OF MAIN STREAMS \*\*\*\*

---

The following data inside Main Stream is listed:  
In Main Stream number: 1  
Stream flow area = 8.430(Ac.)  
Runoff from this stream = 23.187(CFS)  
Time of concentration = 14.39 min.  
Rainfall intensity = 3.086(In/Hr)  
Area averaged loss rate (Fm) = 0.0785(In/Hr)  
Area averaged Pervious ratio (Ap) = 0.1000

Program is now starting with Main Stream No. 2

++++  
Process from Point/Station 20.000 to Point/Station 21.000  
\*\*\*\* INITIAL AREA EVALUATION \*\*\*\*

---

COMMERCIAL subarea type  
Decimal fraction soil group A = 1.000  
Decimal fraction soil group B = 0.000  
Decimal fraction soil group C = 0.000  
Decimal fraction soil group D = 0.000  
SCS curve number for soil(AMC 2) = 32.00  
Adjusted SCS curve number for AMC 3 = 52.00  
Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.079(In/Hr)  
Initial subarea data:  
Initial area flow distance = 577.550(Ft.)  
Top (of initial area) elevation = 982.140(Ft.)  
Bottom (of initial area) elevation = 979.120(Ft.)  
Difference in elevation = 3.020(Ft.)  
Slope = 0.00523 s(%)= 0.52  
TC =  $k(0.304)*[(length^3)/(elevation\ change)]^{0.2}$   
Initial area time of concentration = 11.062 min.  
Rainfall intensity = 3.613(In/Hr) for a 100.0 year storm  
Effective runoff coefficient used for area (Q=KCIA) is C = 0.880  
Subarea runoff = 7.634(CFS)  
Total initial stream area = 2.400(Ac.)  
Pervious area fraction = 0.100  
Initial area Fm value = 0.079(In/Hr)

++++  
Process from Point/Station 21.000 to Point/Station 22.000  
\*\*\*\* PIPEFLOW TRAVEL TIME (Program estimated size) \*\*\*\*

---

Upstream point/station elevation = 974.840(Ft.)  
Downstream point/station elevation = 969.540(Ft.)  
Pipe length = 344.35(Ft.) Manning's N = 0.013  
No. of pipes = 1 Required pipe flow = 7.634(CFS)  
Nearest computed pipe diameter = 15.00(In.)  
Calculated individual pipe flow = 7.634(CFS)  
Normal flow depth in pipe = 11.70(In.)  
Flow top width inside pipe = 12.43(In.)  
Critical Depth = 13.16(In.)  
Pipe flow velocity = 7.43(Ft/s)  
Travel time through pipe = 0.77 min.  
Time of concentration (TC) = 11.83 min.

++++

Process from Point/Station 22.000 to Point/Station 22.000  
\*\*\*\* SUBAREA FLOW ADDITION \*\*\*\*

---

COMMERCIAL subarea type  
Decimal fraction soil group A = 1.000  
Decimal fraction soil group B = 0.000  
Decimal fraction soil group C = 0.000  
Decimal fraction soil group D = 0.000  
SCS curve number for soil(AMC 2) = 32.00  
Adjusted SCS curve number for AMC 3 = 52.00  
Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.079(In/Hr)  
Time of concentration = 11.83 min.  
Rainfall intensity = 3.470(In/Hr) for a 100.0 year storm  
Effective runoff coefficient used for area,(total area with modified  
rational method)(Q=KCIA) is C = 0.880  
Subarea runoff = 0.820(CFS) for 0.370(Ac.)  
Total runoff = 8.454(CFS)  
Effective area this stream = 2.77(Ac.)  
Total Study Area (Main Stream No. 2) = 11.20(Ac.)  
Area averaged Fm value = 0.079(In/Hr)

++++  
Process from Point/Station 22.000 to Point/Station 23.000  
\*\*\*\* PIPEFLOW TRAVEL TIME (Program estimated size) \*\*\*\*

---

Upstream point/station elevation = 969.540(Ft.)  
Downstream point/station elevation = 967.310(Ft.)  
Pipe length = 145.21(Ft.) Manning's N = 0.013  
No. of pipes = 1 Required pipe flow = 8.454(CFS)  
Nearest computed pipe diameter = 18.00(In.)  
Calculated individual pipe flow = 8.454(CFS)  
Normal flow depth in pipe = 10.57(In.)  
Flow top width inside pipe = 17.72(In.)  
Critical Depth = 13.51(In.)  
Pipe flow velocity = 7.84(Ft/s)  
Travel time through pipe = 0.31 min.  
Time of concentration (TC) = 12.14 min.

++++  
Process from Point/Station 23.000 to Point/Station 23.000  
\*\*\*\* SUBAREA FLOW ADDITION \*\*\*\*

---

COMMERCIAL subarea type  
Decimal fraction soil group A = 1.000  
Decimal fraction soil group B = 0.000  
Decimal fraction soil group C = 0.000  
Decimal fraction soil group D = 0.000  
SCS curve number for soil(AMC 2) = 32.00



Adjusted SCS curve number for AMC 3 = 52.00  
Pervious ratio(Ap) = 0.1000 Max loss rate(Fm)= 0.079(In/Hr)  
Time of concentration = 12.14 min.  
Rainfall intensity = 3.416(In/Hr) for a 100.0 year storm  
Effective runoff coefficient used for area,(total area with modified  
rational method)(Q=KCIA) is C = 0.879  
Subarea runoff = 4.824(CFS) for 1.650(Ac.)  
Total runoff = 13.278(CFS)  
Effective area this stream = 4.42(Ac.)  
Total Study Area (Main Stream No. 2) = 12.85(Ac.)  
Area averaged Fm value = 0.079(In/Hr)

++++  
Process from Point/Station 23.000 to Point/Station 16.000  
\*\*\*\* PIPEFLOW TRAVEL TIME (Program estimated size) \*\*\*\*

---

Upstream point/station elevation = 967.310(Ft.)  
Downstream point/station elevation = 966.130(Ft.)  
Pipe length = 76.75(Ft.) Manning's N = 0.013  
No. of pipes = 1 Required pipe flow = 13.278(CFS)  
Nearest computed pipe diameter = 21.00(In.)  
Calculated individual pipe flow = 13.278(CFS)  
Normal flow depth in pipe = 12.66(In.)  
Flow top width inside pipe = 20.55(In.)  
Critical Depth = 16.27(In.)  
Pipe flow velocity = 8.77(Ft/s)  
Travel time through pipe = 0.15 min.  
Time of concentration (TC) = 12.29 min.

++++  
Process from Point/Station 23.000 to Point/Station 16.000  
\*\*\*\* CONFLUENCE OF MAIN STREAMS \*\*\*\*

---

The following data inside Main Stream is listed:

In Main Stream number: 2  
Stream flow area = 4.420(Ac.)  
Runoff from this stream = 13.278(CFS)  
Time of concentration = 12.29 min.  
Rainfall intensity = 3.392(In/Hr)  
Area averaged loss rate (Fm) = 0.0785(In/Hr)  
Area averaged Pervious ratio (Ap) = 0.1000  
Summary of stream data:

Stream No.	Flow rate (CFS)	Area (Ac.)	TC (min)	Fm (In/Hr)	Rainfall Intensity (In/Hr)
1	23.19	8.430	14.39	0.079	3.086

2	13.28	4.420	12.29	0.079	3.392
Qmax(1) =					
	1.000 *	1.000 *	23.187)	+	
	0.908 *	1.000 *	13.278)	+ =	35.239
Qmax(2) =					
	1.102 *	0.854 *	23.187)	+	
	1.000 *	1.000 *	13.278)	+ =	35.100

Total of 2 main streams to confluence:

Flow rates before confluence point:

24.187      14.278

Maximum flow rates at confluence using above data:

35.239      35.100

Area of streams before confluence:

8.430      4.420

Effective area values after confluence:

12.850      11.621

Results of confluence:

Total flow rate = 35.239(CFS)

Time of concentration = 14.386 min.

Effective stream area after confluence = 12.850(Ac.)

Study area average Pervious fraction(Ap) = 0.100

Study area average soil loss rate(Fm) = 0.079(In/Hr)

Study area total = 12.85(Ac.)

End of computations, Total Study Area = 12.85 (Ac.)

The following figures may

be used for a unit hydrograph study of the same area.

Note: These figures do not consider reduced effective area effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.100

Area averaged SCS curve number = 32.0

# APPENDIX C

## UNIT HYDROGRAPH ANALYSIS (100-YEAR STORM, 24 HOUR)

# UNIT HYDROGRAPH ANALYSIS (100-YEAR STORM, 24 HOUR)

## PRE-DEVELOPMENT CONDITION

U n i t   H y d r o g r a p h   A n a l y s i s

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Study date 03/22/22

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San Bernardino County Synthetic Unit Hydrology Method  
Manual date - August 1986

Program License Serial Number 6277

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Job No. 2021-502  
5355 Airport Drive  
100 YR STORM UNIT HYDROGRAPH ANALYSIS  
PRE-CONDITION, AREA A  
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Storm Event Year = 100

Antecedent Moisture Condition = 3

English (in-lb) Input Units Used

English Rainfall Data (Inches) Input Values Used

English Units used in output format

Area averaged rainfall intensity isohyetal data:

Sub-Area (Ac.)	Duration (hours)	Isohyetal (In)
Rainfall data for year 100		
12.85	1	1.31

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Rainfall data for year 100  
12.85                      6                      3.15

-----  
Rainfall data for year 100  
12.85                      24                      5.74  
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\*\*\*\*\* Area-averaged max loss rate, Fm \*\*\*\*\*

SCS curve No.(AMCII)	SCS curve NO.(AMC 3)	Area (Ac.)	Area Fraction	Fp(Fig C6) (In/Hr)	Ap (dec.)	Fm (In/Hr)
32.0	52.0	12.85	1.000	0.785	0.080	0.063

Area-averaged adjusted loss rate Fm (In/Hr) = 0.063

\*\*\*\*\* Area-Averaged low loss rate fraction, Yb \*\*\*\*\*

Area (Ac.)	Area Fract	SCS CN (AMC2)	SCS CN (AMC3)	S	Pervious Yield Fr
1.03	0.080	32.0	52.0	9.23	0.201
11.82	0.920	98.0	98.0	0.20	0.959

Area-averaged catchment yield fraction, Y = 0.898

Area-averaged low loss fraction, Yb = 0.102

User entry of time of concentration = 0.237 (hours)

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Watershed area = 12.85(Ac.)

Catchment Lag time = 0.189 hours

Unit interval = 5.000 minutes

Unit interval percentage of lag time = 44.0135

Hydrograph baseflow = 0.00(CFS)

Average maximum watershed loss rate(Fm) = 0.063(In/Hr)

Average low loss rate fraction (Yb) = 0.102 (decimal)

VALLEY DEVELOPED S-Graph Selected

Computed peak 5-minute rainfall = 0.485(In)

Computed peak 30-minute rainfall = 0.993(In)

Specified peak 1-hour rainfall = 1.310(In)

Computed peak 3-hour rainfall = 2.243(In)

Specified peak 6-hour rainfall = 3.150(In)

Specified peak 24-hour rainfall = 5.740(In)

Rainfall depth area reduction factors:

Using a total area of 12.85(Ac.) (Ref: fig. E-4)

5-minute factor = 0.999 Adjusted rainfall = 0.485(In)

30-minute factor = 0.999 Adjusted rainfall = 0.992(In)

1-hour factor = 0.999 Adjusted rainfall = 1.309(In)

3-hour factor = 1.000 Adjusted rainfall = 2.243(In)

6-hour factor = 1.000 Adjusted rainfall = 3.150(In)

24-hour factor = 1.000 Adjusted rainfall = 5.740(In)

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U n i t H y d r o g r a p h

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Interval Number	'S' Graph Mean values	Unit Hydrograph ((CFS))
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(K = 155.40 (CFS))		
1	3.600	5.594
2	23.452	30.851
3	58.156	53.932
4	83.690	39.680
5	94.204	16.340
6	97.970	5.853
7	98.950	1.522
8	100.000	0.761
-----		
Peak Unit Number	Adjusted mass rainfall (In)	Unit rainfall (In)
1	0.4845	0.4845
2	0.6394	0.1548
3	0.7519	0.1126
4	0.8436	0.0917
5	0.9224	0.0788
6	0.9922	0.0698
7	1.0553	0.0631
8	1.1132	0.0579
9	1.1669	0.0537
10	1.2171	0.0502
11	1.2644	0.0473
12	1.3092	0.0448
13	1.3616	0.0524
14	1.4120	0.0504
15	1.4605	0.0486
16	1.5075	0.0469
17	1.5529	0.0455
18	1.5971	0.0441
19	1.6399	0.0429
20	1.6817	0.0418
21	1.7224	0.0407
22	1.7621	0.0397
23	1.8009	0.0388
24	1.8389	0.0380
25	1.8761	0.0372
26	1.9125	0.0364
27	1.9482	0.0357
28	1.9832	0.0350
29	2.0176	0.0344
30	2.0514	0.0338
31	2.0847	0.0332
32	2.1174	0.0327
33	2.1496	0.0322
34	2.1812	0.0317

35	2.2125	0.0312
36	2.2432	0.0308
37	2.2735	0.0303
38	2.3034	0.0299
39	2.3329	0.0295
40	2.3620	0.0291
41	2.3907	0.0287
42	2.4191	0.0284
43	2.4472	0.0280
44	2.4749	0.0277
45	2.5022	0.0274
46	2.5293	0.0271
47	2.5561	0.0268
48	2.5826	0.0265
49	2.6088	0.0262
50	2.6347	0.0259
51	2.6604	0.0257
52	2.6858	0.0254
53	2.7110	0.0252
54	2.7359	0.0249
55	2.7606	0.0247
56	2.7851	0.0245
57	2.8094	0.0242
58	2.8334	0.0240
59	2.8572	0.0238
60	2.8808	0.0236
61	2.9042	0.0234
62	2.9275	0.0232
63	2.9505	0.0230
64	2.9733	0.0228
65	2.9960	0.0227
66	3.0185	0.0225
67	3.0408	0.0223
68	3.0629	0.0221
69	3.0849	0.0220
70	3.1067	0.0218
71	3.1284	0.0217
72	3.1499	0.0215
73	3.1687	0.0189
74	3.1875	0.0187
75	3.2060	0.0186
76	3.2245	0.0184
77	3.2428	0.0183
78	3.2609	0.0182
79	3.2790	0.0180
80	3.2969	0.0179
81	3.3146	0.0178
82	3.3323	0.0177
83	3.3498	0.0175
84	3.3672	0.0174



85	3.3845	0.0173
86	3.4017	0.0172
87	3.4188	0.0171
88	3.4357	0.0170
89	3.4526	0.0168
90	3.4693	0.0167
91	3.4859	0.0166
92	3.5025	0.0165
93	3.5189	0.0164
94	3.5352	0.0163
95	3.5515	0.0162
96	3.5676	0.0161
97	3.5836	0.0160
98	3.5996	0.0159
99	3.6154	0.0159
100	3.6312	0.0158
101	3.6469	0.0157
102	3.6625	0.0156
103	3.6780	0.0155
104	3.6934	0.0154
105	3.7087	0.0153
106	3.7239	0.0152
107	3.7391	0.0152
108	3.7542	0.0151
109	3.7692	0.0150
110	3.7841	0.0149
111	3.7990	0.0149
112	3.8138	0.0148
113	3.8285	0.0147
114	3.8431	0.0146
115	3.8577	0.0146
116	3.8721	0.0145
117	3.8866	0.0144
118	3.9009	0.0143
119	3.9152	0.0143
120	3.9294	0.0142
121	3.9435	0.0141
122	3.9576	0.0141
123	3.9716	0.0140
124	3.9856	0.0139
125	3.9994	0.0139
126	4.0133	0.0138
127	4.0270	0.0138
128	4.0407	0.0137
129	4.0543	0.0136
130	4.0679	0.0136
131	4.0814	0.0135
132	4.0949	0.0135
133	4.1083	0.0134
134	4.1216	0.0133

135	4.1349	0.0133
136	4.1481	0.0132
137	4.1613	0.0132
138	4.1744	0.0131
139	4.1875	0.0131
140	4.2005	0.0130
141	4.2135	0.0130
142	4.2264	0.0129
143	4.2392	0.0129
144	4.2521	0.0128
145	4.2648	0.0128
146	4.2775	0.0127
147	4.2902	0.0127
148	4.3028	0.0126
149	4.3153	0.0126
150	4.3279	0.0125
151	4.3403	0.0125
152	4.3527	0.0124
153	4.3651	0.0124
154	4.3774	0.0123
155	4.3897	0.0123
156	4.4020	0.0122
157	4.4142	0.0122
158	4.4263	0.0121
159	4.4384	0.0121
160	4.4505	0.0121
161	4.4625	0.0120
162	4.4745	0.0120
163	4.4864	0.0119
164	4.4983	0.0119
165	4.5101	0.0119
166	4.5220	0.0118
167	4.5337	0.0118
168	4.5455	0.0117
169	4.5572	0.0117
170	4.5688	0.0117
171	4.5804	0.0116
172	4.5920	0.0116
173	4.6035	0.0115
174	4.6150	0.0115
175	4.6265	0.0115
176	4.6379	0.0114
177	4.6493	0.0114
178	4.6607	0.0114
179	4.6720	0.0113
180	4.6833	0.0113
181	4.6945	0.0112
182	4.7057	0.0112
183	4.7169	0.0112
184	4.7280	0.0111

185	4.7391	0.0111
186	4.7502	0.0111
187	4.7612	0.0110
188	4.7722	0.0110
189	4.7832	0.0110
190	4.7942	0.0109
191	4.8051	0.0109
192	4.8159	0.0109
193	4.8268	0.0108
194	4.8376	0.0108
195	4.8484	0.0108
196	4.8591	0.0107
197	4.8698	0.0107
198	4.8805	0.0107
199	4.8912	0.0107
200	4.9018	0.0106
201	4.9124	0.0106
202	4.9230	0.0106
203	4.9335	0.0105
204	4.9440	0.0105
205	4.9545	0.0105
206	4.9649	0.0104
207	4.9753	0.0104
208	4.9857	0.0104
209	4.9961	0.0104
210	5.0064	0.0103
211	5.0167	0.0103
212	5.0270	0.0103
213	5.0373	0.0103
214	5.0475	0.0102
215	5.0577	0.0102
216	5.0678	0.0102
217	5.0780	0.0101
218	5.0881	0.0101
219	5.0982	0.0101
220	5.1083	0.0101
221	5.1183	0.0100
222	5.1283	0.0100
223	5.1383	0.0100
224	5.1483	0.0100
225	5.1582	0.0099
226	5.1681	0.0099
227	5.1780	0.0099
228	5.1878	0.0099
229	5.1977	0.0098
230	5.2075	0.0098
231	5.2173	0.0098
232	5.2271	0.0098
233	5.2368	0.0097
234	5.2465	0.0097

235	5.2562	0.0097
236	5.2659	0.0097
237	5.2755	0.0096
238	5.2851	0.0096
239	5.2947	0.0096
240	5.3043	0.0096
241	5.3139	0.0096
242	5.3234	0.0095
243	5.3329	0.0095
244	5.3424	0.0095
245	5.3519	0.0095
246	5.3613	0.0094
247	5.3707	0.0094
248	5.3801	0.0094
249	5.3895	0.0094
250	5.3989	0.0094
251	5.4082	0.0093
252	5.4175	0.0093
253	5.4268	0.0093
254	5.4361	0.0093
255	5.4454	0.0093
256	5.4546	0.0092
257	5.4638	0.0092
258	5.4730	0.0092
259	5.4822	0.0092
260	5.4913	0.0092
261	5.5005	0.0091
262	5.5096	0.0091
263	5.5187	0.0091
264	5.5277	0.0091
265	5.5368	0.0091
266	5.5458	0.0090
267	5.5548	0.0090
268	5.5638	0.0090
269	5.5728	0.0090
270	5.5818	0.0090
271	5.5907	0.0089
272	5.5996	0.0089
273	5.6085	0.0089
274	5.6174	0.0089
275	5.6263	0.0089
276	5.6351	0.0088
277	5.6440	0.0088
278	5.6528	0.0088
279	5.6616	0.0088
280	5.6703	0.0088
281	5.6791	0.0088
282	5.6878	0.0087
283	5.6966	0.0087
284	5.7053	0.0087

285	5.7139	0.0087
286	5.7226	0.0087
287	5.7313	0.0087
288	5.7399	0.0086

Unit Period (number)	Unit Rainfall (In)	Unit Soil-Loss (In)	Effective Rainfall (In)
1	0.0086	0.0009	0.0078
2	0.0087	0.0009	0.0078
3	0.0087	0.0009	0.0078
4	0.0087	0.0009	0.0078
5	0.0087	0.0009	0.0078
6	0.0088	0.0009	0.0079
7	0.0088	0.0009	0.0079
8	0.0088	0.0009	0.0079
9	0.0088	0.0009	0.0079
10	0.0089	0.0009	0.0080
11	0.0089	0.0009	0.0080
12	0.0089	0.0009	0.0080
13	0.0090	0.0009	0.0080
14	0.0090	0.0009	0.0081
15	0.0090	0.0009	0.0081
16	0.0090	0.0009	0.0081
17	0.0091	0.0009	0.0081
18	0.0091	0.0009	0.0082
19	0.0091	0.0009	0.0082
20	0.0092	0.0009	0.0082
21	0.0092	0.0009	0.0083
22	0.0092	0.0009	0.0083
23	0.0093	0.0009	0.0083
24	0.0093	0.0009	0.0083
25	0.0093	0.0010	0.0084
26	0.0093	0.0010	0.0084
27	0.0094	0.0010	0.0084
28	0.0094	0.0010	0.0084
29	0.0094	0.0010	0.0085
30	0.0095	0.0010	0.0085
31	0.0095	0.0010	0.0085
32	0.0095	0.0010	0.0086
33	0.0096	0.0010	0.0086
34	0.0096	0.0010	0.0086
35	0.0096	0.0010	0.0087
36	0.0097	0.0010	0.0087
37	0.0097	0.0010	0.0087
38	0.0097	0.0010	0.0087
39	0.0098	0.0010	0.0088
40	0.0098	0.0010	0.0088
41	0.0099	0.0010	0.0089

42	0.0099	0.0010	0.0089
43	0.0099	0.0010	0.0089
44	0.0100	0.0010	0.0089
45	0.0100	0.0010	0.0090
46	0.0100	0.0010	0.0090
47	0.0101	0.0010	0.0091
48	0.0101	0.0010	0.0091
49	0.0102	0.0010	0.0091
50	0.0102	0.0010	0.0092
51	0.0103	0.0010	0.0092
52	0.0103	0.0010	0.0092
53	0.0103	0.0011	0.0093
54	0.0104	0.0011	0.0093
55	0.0104	0.0011	0.0094
56	0.0104	0.0011	0.0094
57	0.0105	0.0011	0.0094
58	0.0105	0.0011	0.0095
59	0.0106	0.0011	0.0095
60	0.0106	0.0011	0.0095
61	0.0107	0.0011	0.0096
62	0.0107	0.0011	0.0096
63	0.0108	0.0011	0.0097
64	0.0108	0.0011	0.0097
65	0.0109	0.0011	0.0098
66	0.0109	0.0011	0.0098
67	0.0110	0.0011	0.0099
68	0.0110	0.0011	0.0099
69	0.0111	0.0011	0.0099
70	0.0111	0.0011	0.0100
71	0.0112	0.0011	0.0100
72	0.0112	0.0011	0.0101
73	0.0113	0.0012	0.0101
74	0.0113	0.0012	0.0102
75	0.0114	0.0012	0.0102
76	0.0114	0.0012	0.0103
77	0.0115	0.0012	0.0103
78	0.0115	0.0012	0.0104
79	0.0116	0.0012	0.0104
80	0.0117	0.0012	0.0105
81	0.0117	0.0012	0.0105
82	0.0118	0.0012	0.0106
83	0.0119	0.0012	0.0106
84	0.0119	0.0012	0.0107
85	0.0120	0.0012	0.0108
86	0.0120	0.0012	0.0108
87	0.0121	0.0012	0.0109
88	0.0121	0.0012	0.0109
89	0.0122	0.0012	0.0110
90	0.0123	0.0013	0.0110
91	0.0124	0.0013	0.0111

92	0.0124	0.0013	0.0112
93	0.0125	0.0013	0.0112
94	0.0126	0.0013	0.0113
95	0.0127	0.0013	0.0114
96	0.0127	0.0013	0.0114
97	0.0128	0.0013	0.0115
98	0.0129	0.0013	0.0115
99	0.0130	0.0013	0.0116
100	0.0130	0.0013	0.0117
101	0.0131	0.0013	0.0118
102	0.0132	0.0013	0.0118
103	0.0133	0.0014	0.0119
104	0.0133	0.0014	0.0120
105	0.0135	0.0014	0.0121
106	0.0135	0.0014	0.0121
107	0.0136	0.0014	0.0122
108	0.0137	0.0014	0.0123
109	0.0138	0.0014	0.0124
110	0.0139	0.0014	0.0125
111	0.0140	0.0014	0.0126
112	0.0141	0.0014	0.0126
113	0.0142	0.0014	0.0128
114	0.0143	0.0015	0.0128
115	0.0144	0.0015	0.0129
116	0.0145	0.0015	0.0130
117	0.0146	0.0015	0.0131
118	0.0147	0.0015	0.0132
119	0.0149	0.0015	0.0133
120	0.0149	0.0015	0.0134
121	0.0151	0.0015	0.0135
122	0.0152	0.0015	0.0136
123	0.0153	0.0016	0.0138
124	0.0154	0.0016	0.0138
125	0.0156	0.0016	0.0140
126	0.0157	0.0016	0.0141
127	0.0159	0.0016	0.0142
128	0.0159	0.0016	0.0143
129	0.0161	0.0016	0.0145
130	0.0162	0.0017	0.0146
131	0.0164	0.0017	0.0148
132	0.0165	0.0017	0.0148
133	0.0167	0.0017	0.0150
134	0.0168	0.0017	0.0151
135	0.0171	0.0017	0.0153
136	0.0172	0.0018	0.0154
137	0.0174	0.0018	0.0156
138	0.0175	0.0018	0.0157
139	0.0178	0.0018	0.0160
140	0.0179	0.0018	0.0161
141	0.0182	0.0019	0.0163

142	0.0183	0.0019	0.0164
143	0.0186	0.0019	0.0167
144	0.0187	0.0019	0.0168
145	0.0215	0.0022	0.0193
146	0.0217	0.0022	0.0194
147	0.0220	0.0022	0.0197
148	0.0221	0.0023	0.0199
149	0.0225	0.0023	0.0202
150	0.0227	0.0023	0.0203
151	0.0230	0.0023	0.0207
152	0.0232	0.0024	0.0209
153	0.0236	0.0024	0.0212
154	0.0238	0.0024	0.0214
155	0.0242	0.0025	0.0218
156	0.0245	0.0025	0.0220
157	0.0249	0.0025	0.0224
158	0.0252	0.0026	0.0226
159	0.0257	0.0026	0.0231
160	0.0259	0.0026	0.0233
161	0.0265	0.0027	0.0238
162	0.0268	0.0027	0.0240
163	0.0274	0.0028	0.0246
164	0.0277	0.0028	0.0249
165	0.0284	0.0029	0.0255
166	0.0287	0.0029	0.0258
167	0.0295	0.0030	0.0265
168	0.0299	0.0030	0.0268
169	0.0308	0.0031	0.0276
170	0.0312	0.0032	0.0280
171	0.0322	0.0033	0.0289
172	0.0327	0.0033	0.0294
173	0.0338	0.0034	0.0304
174	0.0344	0.0035	0.0309
175	0.0357	0.0036	0.0321
176	0.0364	0.0037	0.0327
177	0.0380	0.0039	0.0341
178	0.0388	0.0040	0.0349
179	0.0407	0.0042	0.0365
180	0.0418	0.0043	0.0375
181	0.0441	0.0045	0.0396
182	0.0455	0.0046	0.0408
183	0.0486	0.0050	0.0436
184	0.0504	0.0051	0.0452
185	0.0448	0.0046	0.0402
186	0.0473	0.0048	0.0425
187	0.0537	0.0052	0.0485
188	0.0579	0.0052	0.0527
189	0.0698	0.0052	0.0645
190	0.0788	0.0052	0.0735
191	0.1126	0.0052	0.1073



192	0.1548	0.0052	0.1496
193	0.4845	0.0052	0.4793
194	0.0917	0.0052	0.0865
195	0.0631	0.0052	0.0579
196	0.0502	0.0051	0.0451
197	0.0524	0.0052	0.0472
198	0.0469	0.0048	0.0422
199	0.0429	0.0044	0.0385
200	0.0397	0.0041	0.0357
201	0.0372	0.0038	0.0334
202	0.0350	0.0036	0.0315
203	0.0332	0.0034	0.0298
204	0.0317	0.0032	0.0285
205	0.0303	0.0031	0.0272
206	0.0291	0.0030	0.0261
207	0.0280	0.0029	0.0252
208	0.0271	0.0028	0.0243
209	0.0262	0.0027	0.0235
210	0.0254	0.0026	0.0228
211	0.0247	0.0025	0.0222
212	0.0240	0.0025	0.0216
213	0.0234	0.0024	0.0210
214	0.0228	0.0023	0.0205
215	0.0223	0.0023	0.0200
216	0.0218	0.0022	0.0196
217	0.0189	0.0019	0.0169
218	0.0184	0.0019	0.0166
219	0.0180	0.0018	0.0162
220	0.0177	0.0018	0.0159
221	0.0173	0.0018	0.0155
222	0.0170	0.0017	0.0152
223	0.0166	0.0017	0.0149
224	0.0163	0.0017	0.0147
225	0.0160	0.0016	0.0144
226	0.0158	0.0016	0.0142
227	0.0155	0.0016	0.0139
228	0.0152	0.0016	0.0137
229	0.0150	0.0015	0.0135
230	0.0148	0.0015	0.0133
231	0.0146	0.0015	0.0131
232	0.0143	0.0015	0.0129
233	0.0141	0.0014	0.0127
234	0.0139	0.0014	0.0125
235	0.0138	0.0014	0.0124
236	0.0136	0.0014	0.0122
237	0.0134	0.0014	0.0120
238	0.0132	0.0013	0.0119
239	0.0131	0.0013	0.0117
240	0.0129	0.0013	0.0116
241	0.0128	0.0013	0.0115

242	0.0126	0.0013	0.0113
243	0.0125	0.0013	0.0112
244	0.0123	0.0013	0.0111
245	0.0122	0.0012	0.0109
246	0.0121	0.0012	0.0108
247	0.0119	0.0012	0.0107
248	0.0118	0.0012	0.0106
249	0.0117	0.0012	0.0105
250	0.0116	0.0012	0.0104
251	0.0115	0.0012	0.0103
252	0.0114	0.0012	0.0102
253	0.0112	0.0011	0.0101
254	0.0111	0.0011	0.0100
255	0.0110	0.0011	0.0099
256	0.0109	0.0011	0.0098
257	0.0108	0.0011	0.0097
258	0.0107	0.0011	0.0097
259	0.0107	0.0011	0.0096
260	0.0106	0.0011	0.0095
261	0.0105	0.0011	0.0094
262	0.0104	0.0011	0.0093
263	0.0103	0.0011	0.0093
264	0.0102	0.0010	0.0092
265	0.0101	0.0010	0.0091
266	0.0101	0.0010	0.0090
267	0.0100	0.0010	0.0090
268	0.0099	0.0010	0.0089
269	0.0098	0.0010	0.0088
270	0.0098	0.0010	0.0088
271	0.0097	0.0010	0.0087
272	0.0096	0.0010	0.0086
273	0.0096	0.0010	0.0086
274	0.0095	0.0010	0.0085
275	0.0094	0.0010	0.0085
276	0.0094	0.0010	0.0084
277	0.0093	0.0009	0.0083
278	0.0092	0.0009	0.0083
279	0.0092	0.0009	0.0082
280	0.0091	0.0009	0.0082
281	0.0091	0.0009	0.0081
282	0.0090	0.0009	0.0081
283	0.0089	0.0009	0.0080
284	0.0089	0.0009	0.0080
285	0.0088	0.0009	0.0079
286	0.0088	0.0009	0.0079
287	0.0087	0.0009	0.0078
288	0.0087	0.0009	0.0078

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-----  
Total soil rain loss = 0.51(In)

Total effective rainfall = 5.23(In)  
 Peak flow rate in flood hydrograph = 37.10(CFS)

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 +-----+

24 - H O U R S T O R M  
 R u n o f f H y d r o g r a p h

-----  
 Hydrograph in 5 Minute intervals ((CFS))  
 -----

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	10.0	20.0	30.0	40.0
0+ 5	0.0003	0.04	Q				
0+10	0.0022	0.28	Q				
0+15	0.0071	0.70	Q				
0+20	0.0140	1.01	VQ				
0+25	0.0219	1.14	VQ				
0+30	0.0301	1.19	VQ				
0+35	0.0384	1.20	VQ				
0+40	0.0468	1.21	VQ				
0+45	0.0551	1.22	VQ				
0+50	0.0636	1.22	VQ				
0+55	0.0720	1.23	VQ				
1+ 0	0.0805	1.23	VQ				
1+ 5	0.0890	1.23	VQ				
1+10	0.0975	1.24	VQ				
1+15	0.1060	1.24	VQ				
1+20	0.1146	1.24	VQ				
1+25	0.1232	1.25	VQ				
1+30	0.1318	1.25	VQ				
1+35	0.1405	1.26	Q				
1+40	0.1492	1.26	Q				
1+45	0.1579	1.27	Q				
1+50	0.1666	1.27	Q				
1+55	0.1754	1.27	Q				
2+ 0	0.1842	1.28	Q				
2+ 5	0.1930	1.28	Q				
2+10	0.2019	1.29	Q				
2+15	0.2108	1.29	Q				
2+20	0.2197	1.29	Q				
2+25	0.2286	1.30	Q				
2+30	0.2376	1.30	Q				
2+35	0.2466	1.31	Q				
2+40	0.2557	1.31	Q				
2+45	0.2647	1.32	Q				
2+50	0.2738	1.32	Q				
2+55	0.2830	1.33	QV				
3+ 0	0.2921	1.33	QV				
3+ 5	0.3013	1.34	QV				
3+10	0.3106	1.34	QV				

3+15	0.3199	1.35	QV				
3+20	0.3292	1.35	QV				
3+25	0.3385	1.36	QV				
3+30	0.3479	1.36	QV				
3+35	0.3573	1.37	QV				
3+40	0.3667	1.37	QV				
3+45	0.3762	1.38	QV				
3+50	0.3857	1.38	QV				
3+55	0.3952	1.39	QV				
4+ 0	0.4048	1.39	QV				
4+ 5	0.4145	1.40	QV				
4+10	0.4241	1.40	Q V				
4+15	0.4338	1.41	Q V				
4+20	0.4436	1.41	Q V				
4+25	0.4533	1.42	Q V				
4+30	0.4631	1.43	Q V				
4+35	0.4730	1.43	Q V				
4+40	0.4829	1.44	Q V				
4+45	0.4928	1.44	Q V				
4+50	0.5028	1.45	Q V				
4+55	0.5128	1.45	Q V				
5+ 0	0.5229	1.46	Q V				
5+ 5	0.5330	1.47	Q V				
5+10	0.5431	1.47	Q V				
5+15	0.5533	1.48	Q V				
5+20	0.5636	1.49	Q V				
5+25	0.5738	1.49	Q V				
5+30	0.5841	1.50	Q V				
5+35	0.5945	1.51	Q V				
5+40	0.6049	1.51	Q V				
5+45	0.6154	1.52	Q V				
5+50	0.6259	1.53	Q V				
5+55	0.6365	1.53	Q V				
6+ 0	0.6471	1.54	Q V				
6+ 5	0.6577	1.55	Q V				
6+10	0.6684	1.55	Q V				
6+15	0.6792	1.56	Q V				
6+20	0.6900	1.57	Q V				
6+25	0.7008	1.58	Q V				
6+30	0.7117	1.58	Q V				
6+35	0.7227	1.59	Q V				
6+40	0.7337	1.60	Q V				
6+45	0.7448	1.61	Q V				
6+50	0.7559	1.62	Q V				
6+55	0.7671	1.62	Q V				
7+ 0	0.7783	1.63	Q V				
7+ 5	0.7896	1.64	Q V				
7+10	0.8010	1.65	Q V				
7+15	0.8124	1.66	Q V				
7+20	0.8239	1.67	Q V				

7+25	0.8354	1.68	Q	V
7+30	0.8470	1.68	Q	V
7+35	0.8587	1.69	Q	V
7+40	0.8704	1.70	Q	V
7+45	0.8822	1.71	Q	V
7+50	0.8940	1.72	Q	V
7+55	0.9060	1.73	Q	V
8+ 0	0.9180	1.74	Q	V
8+ 5	0.9300	1.75	Q	V
8+10	0.9421	1.76	Q	V
8+15	0.9543	1.77	Q	V
8+20	0.9666	1.78	Q	V
8+25	0.9790	1.79	Q	V
8+30	0.9914	1.80	Q	V
8+35	1.0039	1.81	Q	V
8+40	1.0165	1.83	Q	V
8+45	1.0291	1.84	Q	V
8+50	1.0419	1.85	Q	V
8+55	1.0547	1.86	Q	V
9+ 0	1.0676	1.87	Q	V
9+ 5	1.0806	1.89	Q	V
9+10	1.0936	1.90	Q	V
9+15	1.1068	1.91	Q	V
9+20	1.1200	1.92	Q	V
9+25	1.1334	1.94	Q	V
9+30	1.1468	1.95	Q	V
9+35	1.1603	1.96	Q	V
9+40	1.1740	1.98	Q	V
9+45	1.1877	1.99	Q	V
9+50	1.2015	2.01	Q	V
9+55	1.2154	2.02	Q	V
10+ 0	1.2295	2.04	Q	V
10+ 5	1.2436	2.05	Q	V
10+10	1.2579	2.07	Q	V
10+15	1.2722	2.08	Q	V
10+20	1.2867	2.10	Q	V
10+25	1.3013	2.12	Q	V
10+30	1.3160	2.14	Q	V
10+35	1.3308	2.15	Q	V
10+40	1.3458	2.17	Q	V
10+45	1.3609	2.19	Q	V
10+50	1.3761	2.21	Q	V
10+55	1.3914	2.23	Q	V
11+ 0	1.4069	2.25	Q	V
11+ 5	1.4225	2.27	Q	V
11+10	1.4383	2.29	Q	V
11+15	1.4542	2.31	Q	V
11+20	1.4703	2.33	Q	V
11+25	1.4865	2.36	Q	V
11+30	1.5029	2.38	Q	V

11+35	1.5195	2.40	Q	V			
11+40	1.5362	2.43	Q	V			
11+45	1.5531	2.45	Q	V			
11+50	1.5701	2.48	Q	V			
11+55	1.5874	2.51	Q	V			
12+ 0	1.6049	2.53	Q	V			
12+ 5	1.6226	2.57	Q	V			
12+10	1.6410	2.67	Q	V			
12+15	1.6605	2.82	Q	V			
12+20	1.6807	2.94	Q	V			
12+25	1.7015	3.01	Q	V			
12+30	1.7226	3.06	Q	V			
12+35	1.7439	3.10	Q	V			
12+40	1.7655	3.14	Q	V			
12+45	1.7874	3.18	Q	V			
12+50	1.8096	3.21	Q	V			
12+55	1.8320	3.26	Q	V			
13+ 0	1.8547	3.30	Q	V			
13+ 5	1.8777	3.34	Q	V			
13+10	1.9010	3.39	Q	V			
13+15	1.9247	3.43	Q	V			
13+20	1.9487	3.48	Q	V			
13+25	1.9730	3.54	Q	V			
13+30	1.9977	3.59	Q	V			
13+35	2.0229	3.65	Q	V			
13+40	2.0484	3.71	Q	V			
13+45	2.0743	3.77	Q	V			
13+50	2.1007	3.83	Q	V			
13+55	2.1276	3.90	Q	V			
14+ 0	2.1550	3.98	Q	V			
14+ 5	2.1829	4.05	Q	V			
14+10	2.2114	4.13	Q	V			
14+15	2.2405	4.22	Q	V			
14+20	2.2702	4.32	Q	V			
14+25	2.3006	4.41	Q	V			
14+30	2.3317	4.52	Q	V			
14+35	2.3636	4.63	Q	V			
14+40	2.3964	4.76	Q	V			
14+45	2.4300	4.89	Q	V			
14+50	2.4647	5.03	Q	V			
14+55	2.5004	5.19	Q	V			
15+ 0	2.5374	5.36	Q	V			
15+ 5	2.5756	5.55	Q	V			
15+10	2.6153	5.77	Q	V			
15+15	2.6567	6.01	Q	V			
15+20	2.6999	6.28	Q	V			
15+25	2.7450	6.54	Q	V			
15+30	2.7906	6.63	Q	V			
15+35	2.8360	6.59	Q	V			
15+40	2.8826	6.76	Q	V			

15+45	2.9329	7.30		Q		V		
15+50	2.9893	8.20		Q		V		
15+55	3.0553	9.58		Q		V		
16+ 0	3.1374	11.91				V		
16+ 5	3.2577	17.47			Q	V		
16+10	3.4594	29.29				V	Q	
16+15	3.7149	37.10				V		Q
16+20	3.9143	28.95				V	Q	
16+25	4.0324	17.13			Q	V		
16+30	4.1077	10.95				V		
16+35	4.1638	8.14				V		
16+40	4.2128	7.10				V		
16+45	4.2556	6.23				V		
16+50	4.2951	5.74		Q		V		
16+55	4.3319	5.34		Q		V		
17+ 0	4.3664	5.01		Q		V		
17+ 5	4.3990	4.73		Q		V		
17+10	4.4299	4.50		Q		V		
17+15	4.4595	4.29		Q		V		
17+20	4.4879	4.11		Q		V		
17+25	4.5151	3.96		Q		V		
17+30	4.5414	3.82		Q		V		
17+35	4.5668	3.69		Q		V		
17+40	4.5914	3.58		Q		V		
17+45	4.6153	3.47		Q		V		
17+50	4.6386	3.37		Q		V		
17+55	4.6612	3.29		Q		V		
18+ 0	4.6833	3.20		Q		V		
18+ 5	4.7047	3.11		Q		V		
18+10	4.7252	2.97		Q		V		
18+15	4.7444	2.79		Q		V		
18+20	4.7626	2.64		Q		V		
18+25	4.7801	2.54		Q		V		
18+30	4.7971	2.48		Q		V		
18+35	4.8138	2.42		Q		V		
18+40	4.8301	2.37		Q		V		
18+45	4.8462	2.33		Q		V		
18+50	4.8619	2.28		Q		V		
18+55	4.8773	2.24		Q		V		
19+ 0	4.8925	2.20		Q		V		
19+ 5	4.9074	2.17		Q		V		
19+10	4.9221	2.13		Q		V		
19+15	4.9365	2.10		Q		V		
19+20	4.9507	2.06		Q		V		
19+25	4.9647	2.03		Q		V		
19+30	4.9785	2.00		Q		V		
19+35	4.9921	1.97		Q		V		
19+40	5.0055	1.95		Q		V		
19+45	5.0187	1.92		Q		V		
19+50	5.0318	1.89		Q		V		

19+55	5.0447	1.87	Q				V
20+ 0	5.0574	1.85	Q				V
20+ 5	5.0699	1.82	Q				V
20+10	5.0823	1.80	Q				V
20+15	5.0946	1.78	Q				V
20+20	5.1067	1.76	Q				V
20+25	5.1186	1.74	Q				V
20+30	5.1305	1.72	Q				V
20+35	5.1422	1.70	Q				V
20+40	5.1537	1.68	Q				V
20+45	5.1652	1.66	Q				V
20+50	5.1765	1.65	Q				V
20+55	5.1877	1.63	Q				V
21+ 0	5.1989	1.61	Q				V
21+ 5	5.2099	1.60	Q				V
21+10	5.2207	1.58	Q				V
21+15	5.2315	1.57	Q				V
21+20	5.2422	1.55	Q				V
21+25	5.2528	1.54	Q				V
21+30	5.2633	1.52	Q				V
21+35	5.2737	1.51	Q				V
21+40	5.2840	1.50	Q				V
21+45	5.2942	1.48	Q				V
21+50	5.3043	1.47	Q				V
21+55	5.3144	1.46	Q				V
22+ 0	5.3244	1.45	Q				V
22+ 5	5.3342	1.43	Q				V
22+10	5.3440	1.42	Q				V
22+15	5.3538	1.41	Q				V
22+20	5.3634	1.40	Q				V
22+25	5.3730	1.39	Q				V
22+30	5.3825	1.38	Q				V
22+35	5.3919	1.37	Q				V
22+40	5.4013	1.36	Q				V
22+45	5.4106	1.35	Q				V
22+50	5.4198	1.34	Q				V
22+55	5.4289	1.33	Q				V
23+ 0	5.4380	1.32	Q				V
23+ 5	5.4471	1.31	Q				V
23+10	5.4560	1.30	Q				V
23+15	5.4649	1.29	Q				V
23+20	5.4738	1.28	Q				V
23+25	5.4826	1.28	Q				V
23+30	5.4913	1.27	Q				V
23+35	5.5000	1.26	Q				V
23+40	5.5086	1.25	Q				V
23+45	5.5172	1.24	Q				V
23+50	5.5257	1.24	Q				V
23+55	5.5341	1.23	Q				V
24+ 0	5.5425	1.22	Q				V



# UNIT HYDROGRAPH ANALYSIS (100-YEAR STORM, 24 HOUR)

## POST-DEVELOPMENT CONDITION

U n i t   H y d r o g r a p h   A n a l y s i s

Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2004, Version 7.0

Study date 03/23/22

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San Bernardino County Synthetic Unit Hydrology Method  
Manual date - August 1986

Program License Serial Number 6277

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Job No. 2021-502  
5355 Airport Drive  
100 YR STORM UNIT HYDROGRAPH ANALYSIS  
POST-CONDITION, AREA A  
-----

Storm Event Year = 100

Antecedent Moisture Condition = 3

English (in-lb) Input Units Used

English Rainfall Data (Inches) Input Values Used

English Units used in output format

Area averaged rainfall intensity isohyetal data:

Sub-Area (Ac.)	Duration (hours)	Isohyetal (In)
Rainfall data for year 100		
12.85	1	1.31

-----  
Rainfall data for year 100  
12.85                      6                      3.15  
-----

-----  
Rainfall data for year 100  
12.85                      24                      5.74  
-----

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\*\*\*\*\* Area-averaged max loss rate, Fm \*\*\*\*\*

SCS curve No.(AMCII)	SCS curve NO.(AMC 3)	Area (Ac.)	Area Fraction	Fp(Fig C6) (In/Hr)	Ap (dec.)	Fm (In/Hr)
32.0	52.0	12.85	1.000	0.785	0.110	0.086

Area-averaged adjusted loss rate Fm (In/Hr) = 0.086

\*\*\*\*\* Area-Averaged low loss rate fraction, Yb \*\*\*\*\*

Area (Ac.)	Area Fract	SCS CN (AMC2)	SCS CN (AMC3)	S	Pervious Yield Fr
1.41	0.110	32.0	52.0	9.23	0.201
11.44	0.890	98.0	98.0	0.20	0.959

Area-averaged catchment yield fraction, Y = 0.875

Area-averaged low loss fraction, Yb = 0.125

User entry of time of concentration = 0.240 (hours)

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Watershed area = 12.85(Ac.)

Catchment Lag time = 0.192 hours

Unit interval = 5.000 minutes

Unit interval percentage of lag time = 43.4450

Hydrograph baseflow = 0.00(CFS)

Average maximum watershed loss rate(Fm) = 0.086(In/Hr)

Average low loss rate fraction (Yb) = 0.125 (decimal)

VALLEY DEVELOPED S-Graph Selected

Computed peak 5-minute rainfall = 0.485(In)

Computed peak 30-minute rainfall = 0.993(In)

Specified peak 1-hour rainfall = 1.310(In)

Computed peak 3-hour rainfall = 2.243(In)

Specified peak 6-hour rainfall = 3.150(In)

Specified peak 24-hour rainfall = 5.740(In)

Rainfall depth area reduction factors:

Using a total area of 12.85(Ac.) (Ref: fig. E-4)

5-minute factor = 0.999 Adjusted rainfall = 0.485(In)

30-minute factor = 0.999 Adjusted rainfall = 0.992(In)

1-hour factor = 0.999 Adjusted rainfall = 1.309(In)

3-hour factor = 1.000 Adjusted rainfall = 2.243(In)

6-hour factor = 1.000 Adjusted rainfall = 3.150(In)

24-hour factor = 1.000 Adjusted rainfall = 5.740(In)

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Unit Hydrograph

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Interval Number	'S' Graph Mean values	Unit Hydrograph ((CFS))
-----		
(K = 155.40 (CFS))		
1	3.515	5.462
2	22.886	30.103
3	57.004	53.022
4	82.983	40.372
5	93.828	16.853
6	97.846	6.245
7	98.883	1.611
8	99.657	1.203
9	100.000	0.533

Peak Unit Number	Adjusted mass rainfall (In)	Unit rainfall (In)
-----		
1	0.4845	0.4845
2	0.6394	0.1548
3	0.7519	0.1126
4	0.8436	0.0917
5	0.9224	0.0788
6	0.9922	0.0698
7	1.0553	0.0631
8	1.1132	0.0579
9	1.1669	0.0537
10	1.2171	0.0502
11	1.2644	0.0473
12	1.3092	0.0448
13	1.3616	0.0524
14	1.4120	0.0504
15	1.4605	0.0486
16	1.5075	0.0469
17	1.5529	0.0455
18	1.5971	0.0441
19	1.6399	0.0429
20	1.6817	0.0418
21	1.7224	0.0407
22	1.7621	0.0397
23	1.8009	0.0388
24	1.8389	0.0380
25	1.8761	0.0372
26	1.9125	0.0364
27	1.9482	0.0357
28	1.9832	0.0350
29	2.0176	0.0344
30	2.0514	0.0338
31	2.0847	0.0332
32	2.1174	0.0327
33	2.1496	0.0322

34	2.1812	0.0317
35	2.2125	0.0312
36	2.2432	0.0308
37	2.2735	0.0303
38	2.3034	0.0299
39	2.3329	0.0295
40	2.3620	0.0291
41	2.3907	0.0287
42	2.4191	0.0284
43	2.4472	0.0280
44	2.4749	0.0277
45	2.5022	0.0274
46	2.5293	0.0271
47	2.5561	0.0268
48	2.5826	0.0265
49	2.6088	0.0262
50	2.6347	0.0259
51	2.6604	0.0257
52	2.6858	0.0254
53	2.7110	0.0252
54	2.7359	0.0249
55	2.7606	0.0247
56	2.7851	0.0245
57	2.8094	0.0242
58	2.8334	0.0240
59	2.8572	0.0238
60	2.8808	0.0236
61	2.9042	0.0234
62	2.9275	0.0232
63	2.9505	0.0230
64	2.9733	0.0228
65	2.9960	0.0227
66	3.0185	0.0225
67	3.0408	0.0223
68	3.0629	0.0221
69	3.0849	0.0220
70	3.1067	0.0218
71	3.1284	0.0217
72	3.1499	0.0215
73	3.1687	0.0189
74	3.1875	0.0187
75	3.2060	0.0186
76	3.2245	0.0184
77	3.2428	0.0183
78	3.2609	0.0182
79	3.2790	0.0180
80	3.2969	0.0179
81	3.3146	0.0178
82	3.3323	0.0177
83	3.3498	0.0175

84	3.3672	0.0174
85	3.3845	0.0173
86	3.4017	0.0172
87	3.4188	0.0171
88	3.4357	0.0170
89	3.4526	0.0168
90	3.4693	0.0167
91	3.4859	0.0166
92	3.5025	0.0165
93	3.5189	0.0164
94	3.5352	0.0163
95	3.5515	0.0162
96	3.5676	0.0161
97	3.5836	0.0160
98	3.5996	0.0159
99	3.6154	0.0159
100	3.6312	0.0158
101	3.6469	0.0157
102	3.6625	0.0156
103	3.6780	0.0155
104	3.6934	0.0154
105	3.7087	0.0153
106	3.7239	0.0152
107	3.7391	0.0152
108	3.7542	0.0151
109	3.7692	0.0150
110	3.7841	0.0149
111	3.7990	0.0149
112	3.8138	0.0148
113	3.8285	0.0147
114	3.8431	0.0146
115	3.8577	0.0146
116	3.8721	0.0145
117	3.8866	0.0144
118	3.9009	0.0143
119	3.9152	0.0143
120	3.9294	0.0142
121	3.9435	0.0141
122	3.9576	0.0141
123	3.9716	0.0140
124	3.9856	0.0139
125	3.9994	0.0139
126	4.0133	0.0138
127	4.0270	0.0138
128	4.0407	0.0137
129	4.0543	0.0136
130	4.0679	0.0136
131	4.0814	0.0135
132	4.0949	0.0135
133	4.1083	0.0134

134	4.1216	0.0133
135	4.1349	0.0133
136	4.1481	0.0132
137	4.1613	0.0132
138	4.1744	0.0131
139	4.1875	0.0131
140	4.2005	0.0130
141	4.2135	0.0130
142	4.2264	0.0129
143	4.2392	0.0129
144	4.2521	0.0128
145	4.2648	0.0128
146	4.2775	0.0127
147	4.2902	0.0127
148	4.3028	0.0126
149	4.3153	0.0126
150	4.3279	0.0125
151	4.3403	0.0125
152	4.3527	0.0124
153	4.3651	0.0124
154	4.3774	0.0123
155	4.3897	0.0123
156	4.4020	0.0122
157	4.4142	0.0122
158	4.4263	0.0121
159	4.4384	0.0121
160	4.4505	0.0121
161	4.4625	0.0120
162	4.4745	0.0120
163	4.4864	0.0119
164	4.4983	0.0119
165	4.5101	0.0119
166	4.5220	0.0118
167	4.5337	0.0118
168	4.5455	0.0117
169	4.5572	0.0117
170	4.5688	0.0117
171	4.5804	0.0116
172	4.5920	0.0116
173	4.6035	0.0115
174	4.6150	0.0115
175	4.6265	0.0115
176	4.6379	0.0114
177	4.6493	0.0114
178	4.6607	0.0114
179	4.6720	0.0113
180	4.6833	0.0113
181	4.6945	0.0112
182	4.7057	0.0112
183	4.7169	0.0112

184	4.7280	0.0111
185	4.7391	0.0111
186	4.7502	0.0111
187	4.7612	0.0110
188	4.7722	0.0110
189	4.7832	0.0110
190	4.7942	0.0109
191	4.8051	0.0109
192	4.8159	0.0109
193	4.8268	0.0108
194	4.8376	0.0108
195	4.8484	0.0108
196	4.8591	0.0107
197	4.8698	0.0107
198	4.8805	0.0107
199	4.8912	0.0107
200	4.9018	0.0106
201	4.9124	0.0106
202	4.9230	0.0106
203	4.9335	0.0105
204	4.9440	0.0105
205	4.9545	0.0105
206	4.9649	0.0104
207	4.9753	0.0104
208	4.9857	0.0104
209	4.9961	0.0104
210	5.0064	0.0103
211	5.0167	0.0103
212	5.0270	0.0103
213	5.0373	0.0103
214	5.0475	0.0102
215	5.0577	0.0102
216	5.0678	0.0102
217	5.0780	0.0101
218	5.0881	0.0101
219	5.0982	0.0101
220	5.1083	0.0101
221	5.1183	0.0100
222	5.1283	0.0100
223	5.1383	0.0100
224	5.1483	0.0100
225	5.1582	0.0099
226	5.1681	0.0099
227	5.1780	0.0099
228	5.1878	0.0099
229	5.1977	0.0098
230	5.2075	0.0098
231	5.2173	0.0098
232	5.2271	0.0098
233	5.2368	0.0097



234	5.2465	0.0097
235	5.2562	0.0097
236	5.2659	0.0097
237	5.2755	0.0096
238	5.2851	0.0096
239	5.2947	0.0096
240	5.3043	0.0096
241	5.3139	0.0096
242	5.3234	0.0095
243	5.3329	0.0095
244	5.3424	0.0095
245	5.3519	0.0095
246	5.3613	0.0094
247	5.3707	0.0094
248	5.3801	0.0094
249	5.3895	0.0094
250	5.3989	0.0094
251	5.4082	0.0093
252	5.4175	0.0093
253	5.4268	0.0093
254	5.4361	0.0093
255	5.4454	0.0093
256	5.4546	0.0092
257	5.4638	0.0092
258	5.4730	0.0092
259	5.4822	0.0092
260	5.4913	0.0092
261	5.5005	0.0091
262	5.5096	0.0091
263	5.5187	0.0091
264	5.5277	0.0091
265	5.5368	0.0091
266	5.5458	0.0090
267	5.5548	0.0090
268	5.5638	0.0090
269	5.5728	0.0090
270	5.5818	0.0090
271	5.5907	0.0089
272	5.5996	0.0089
273	5.6085	0.0089
274	5.6174	0.0089
275	5.6263	0.0089
276	5.6351	0.0088
277	5.6440	0.0088
278	5.6528	0.0088
279	5.6616	0.0088
280	5.6703	0.0088
281	5.6791	0.0088
282	5.6878	0.0087
283	5.6966	0.0087

284	5.7053	0.0087
285	5.7139	0.0087
286	5.7226	0.0087
287	5.7313	0.0087
288	5.7399	0.0086

Unit Period (number)	Unit Rainfall (In)	Unit Soil-Loss (In)	Effective Rainfall (In)
1	0.0086	0.0011	0.0076
2	0.0087	0.0011	0.0076
3	0.0087	0.0011	0.0076
4	0.0087	0.0011	0.0076
5	0.0087	0.0011	0.0076
6	0.0088	0.0011	0.0077
7	0.0088	0.0011	0.0077
8	0.0088	0.0011	0.0077
9	0.0088	0.0011	0.0077
10	0.0089	0.0011	0.0078
11	0.0089	0.0011	0.0078
12	0.0089	0.0011	0.0078
13	0.0090	0.0011	0.0078
14	0.0090	0.0011	0.0079
15	0.0090	0.0011	0.0079
16	0.0090	0.0011	0.0079
17	0.0091	0.0011	0.0079
18	0.0091	0.0011	0.0080
19	0.0091	0.0011	0.0080
20	0.0092	0.0011	0.0080
21	0.0092	0.0011	0.0080
22	0.0092	0.0011	0.0081
23	0.0093	0.0012	0.0081
24	0.0093	0.0012	0.0081
25	0.0093	0.0012	0.0082
26	0.0093	0.0012	0.0082
27	0.0094	0.0012	0.0082
28	0.0094	0.0012	0.0082
29	0.0094	0.0012	0.0083
30	0.0095	0.0012	0.0083
31	0.0095	0.0012	0.0083
32	0.0095	0.0012	0.0083
33	0.0096	0.0012	0.0084
34	0.0096	0.0012	0.0084
35	0.0096	0.0012	0.0084
36	0.0097	0.0012	0.0085
37	0.0097	0.0012	0.0085
38	0.0097	0.0012	0.0085
39	0.0098	0.0012	0.0086
40	0.0098	0.0012	0.0086

41	0.0099	0.0012	0.0086
42	0.0099	0.0012	0.0087
43	0.0099	0.0012	0.0087
44	0.0100	0.0012	0.0087
45	0.0100	0.0012	0.0088
46	0.0100	0.0013	0.0088
47	0.0101	0.0013	0.0088
48	0.0101	0.0013	0.0089
49	0.0102	0.0013	0.0089
50	0.0102	0.0013	0.0089
51	0.0103	0.0013	0.0090
52	0.0103	0.0013	0.0090
53	0.0103	0.0013	0.0090
54	0.0104	0.0013	0.0091
55	0.0104	0.0013	0.0091
56	0.0104	0.0013	0.0091
57	0.0105	0.0013	0.0092
58	0.0105	0.0013	0.0092
59	0.0106	0.0013	0.0093
60	0.0106	0.0013	0.0093
61	0.0107	0.0013	0.0094
62	0.0107	0.0013	0.0094
63	0.0108	0.0013	0.0094
64	0.0108	0.0013	0.0095
65	0.0109	0.0014	0.0095
66	0.0109	0.0014	0.0095
67	0.0110	0.0014	0.0096
68	0.0110	0.0014	0.0096
69	0.0111	0.0014	0.0097
70	0.0111	0.0014	0.0097
71	0.0112	0.0014	0.0098
72	0.0112	0.0014	0.0098
73	0.0113	0.0014	0.0099
74	0.0113	0.0014	0.0099
75	0.0114	0.0014	0.0100
76	0.0114	0.0014	0.0100
77	0.0115	0.0014	0.0101
78	0.0115	0.0014	0.0101
79	0.0116	0.0014	0.0102
80	0.0117	0.0015	0.0102
81	0.0117	0.0015	0.0103
82	0.0118	0.0015	0.0103
83	0.0119	0.0015	0.0104
84	0.0119	0.0015	0.0104
85	0.0120	0.0015	0.0105
86	0.0120	0.0015	0.0105
87	0.0121	0.0015	0.0106
88	0.0121	0.0015	0.0106
89	0.0122	0.0015	0.0107
90	0.0123	0.0015	0.0107

91	0.0124	0.0015	0.0108
92	0.0124	0.0015	0.0109
93	0.0125	0.0016	0.0110
94	0.0126	0.0016	0.0110
95	0.0127	0.0016	0.0111
96	0.0127	0.0016	0.0111
97	0.0128	0.0016	0.0112
98	0.0129	0.0016	0.0113
99	0.0130	0.0016	0.0113
100	0.0130	0.0016	0.0114
101	0.0131	0.0016	0.0115
102	0.0132	0.0016	0.0115
103	0.0133	0.0017	0.0116
104	0.0133	0.0017	0.0117
105	0.0135	0.0017	0.0118
106	0.0135	0.0017	0.0118
107	0.0136	0.0017	0.0119
108	0.0137	0.0017	0.0120
109	0.0138	0.0017	0.0121
110	0.0139	0.0017	0.0121
111	0.0140	0.0017	0.0123
112	0.0141	0.0018	0.0123
113	0.0142	0.0018	0.0124
114	0.0143	0.0018	0.0125
115	0.0144	0.0018	0.0126
116	0.0145	0.0018	0.0127
117	0.0146	0.0018	0.0128
118	0.0147	0.0018	0.0129
119	0.0149	0.0019	0.0130
120	0.0149	0.0019	0.0131
121	0.0151	0.0019	0.0132
122	0.0152	0.0019	0.0133
123	0.0153	0.0019	0.0134
124	0.0154	0.0019	0.0135
125	0.0156	0.0019	0.0136
126	0.0157	0.0020	0.0137
127	0.0159	0.0020	0.0139
128	0.0159	0.0020	0.0140
129	0.0161	0.0020	0.0141
130	0.0162	0.0020	0.0142
131	0.0164	0.0020	0.0144
132	0.0165	0.0021	0.0145
133	0.0167	0.0021	0.0147
134	0.0168	0.0021	0.0147
135	0.0171	0.0021	0.0149
136	0.0172	0.0021	0.0150
137	0.0174	0.0022	0.0152
138	0.0175	0.0022	0.0153
139	0.0178	0.0022	0.0156
140	0.0179	0.0022	0.0157

141	0.0182	0.0023	0.0159
142	0.0183	0.0023	0.0160
143	0.0186	0.0023	0.0163
144	0.0187	0.0023	0.0164
145	0.0215	0.0027	0.0188
146	0.0217	0.0027	0.0190
147	0.0220	0.0027	0.0192
148	0.0221	0.0028	0.0194
149	0.0225	0.0028	0.0197
150	0.0227	0.0028	0.0198
151	0.0230	0.0029	0.0202
152	0.0232	0.0029	0.0203
153	0.0236	0.0029	0.0207
154	0.0238	0.0030	0.0208
155	0.0242	0.0030	0.0212
156	0.0245	0.0031	0.0214
157	0.0249	0.0031	0.0218
158	0.0252	0.0031	0.0220
159	0.0257	0.0032	0.0225
160	0.0259	0.0032	0.0227
161	0.0265	0.0033	0.0232
162	0.0268	0.0033	0.0234
163	0.0274	0.0034	0.0240
164	0.0277	0.0035	0.0243
165	0.0284	0.0035	0.0248
166	0.0287	0.0036	0.0252
167	0.0295	0.0037	0.0258
168	0.0299	0.0037	0.0262
169	0.0308	0.0038	0.0269
170	0.0312	0.0039	0.0273
171	0.0322	0.0040	0.0282
172	0.0327	0.0041	0.0286
173	0.0338	0.0042	0.0296
174	0.0344	0.0043	0.0301
175	0.0357	0.0045	0.0313
176	0.0364	0.0045	0.0319
177	0.0380	0.0047	0.0332
178	0.0388	0.0048	0.0340
179	0.0407	0.0051	0.0356
180	0.0418	0.0052	0.0365
181	0.0441	0.0055	0.0386
182	0.0455	0.0057	0.0398
183	0.0486	0.0061	0.0425
184	0.0504	0.0063	0.0441
185	0.0448	0.0056	0.0392
186	0.0473	0.0059	0.0414
187	0.0537	0.0067	0.0470
188	0.0579	0.0072	0.0507
189	0.0698	0.0072	0.0626
190	0.0788	0.0072	0.0716

191	0.1126	0.0072	0.1054
192	0.1548	0.0072	0.1476
193	0.4845	0.0072	0.4774
194	0.0917	0.0072	0.0845
195	0.0631	0.0072	0.0559
196	0.0502	0.0063	0.0440
197	0.0524	0.0065	0.0459
198	0.0469	0.0059	0.0411
199	0.0429	0.0054	0.0375
200	0.0397	0.0050	0.0348
201	0.0372	0.0046	0.0325
202	0.0350	0.0044	0.0307
203	0.0332	0.0041	0.0291
204	0.0317	0.0040	0.0277
205	0.0303	0.0038	0.0265
206	0.0291	0.0036	0.0255
207	0.0280	0.0035	0.0245
208	0.0271	0.0034	0.0237
209	0.0262	0.0033	0.0229
210	0.0254	0.0032	0.0222
211	0.0247	0.0031	0.0216
212	0.0240	0.0030	0.0210
213	0.0234	0.0029	0.0205
214	0.0228	0.0028	0.0200
215	0.0223	0.0028	0.0195
216	0.0218	0.0027	0.0191
217	0.0189	0.0024	0.0165
218	0.0184	0.0023	0.0161
219	0.0180	0.0022	0.0158
220	0.0177	0.0022	0.0155
221	0.0173	0.0022	0.0151
222	0.0170	0.0021	0.0148
223	0.0166	0.0021	0.0146
224	0.0163	0.0020	0.0143
225	0.0160	0.0020	0.0140
226	0.0158	0.0020	0.0138
227	0.0155	0.0019	0.0136
228	0.0152	0.0019	0.0133
229	0.0150	0.0019	0.0131
230	0.0148	0.0018	0.0129
231	0.0146	0.0018	0.0127
232	0.0143	0.0018	0.0126
233	0.0141	0.0018	0.0124
234	0.0139	0.0017	0.0122
235	0.0138	0.0017	0.0120
236	0.0136	0.0017	0.0119
237	0.0134	0.0017	0.0117
238	0.0132	0.0017	0.0116
239	0.0131	0.0016	0.0114
240	0.0129	0.0016	0.0113

241	0.0128	0.0016	0.0112
242	0.0126	0.0016	0.0110
243	0.0125	0.0016	0.0109
244	0.0123	0.0015	0.0108
245	0.0122	0.0015	0.0107
246	0.0121	0.0015	0.0106
247	0.0119	0.0015	0.0104
248	0.0118	0.0015	0.0103
249	0.0117	0.0015	0.0102
250	0.0116	0.0014	0.0101
251	0.0115	0.0014	0.0100
252	0.0114	0.0014	0.0099
253	0.0112	0.0014	0.0098
254	0.0111	0.0014	0.0098
255	0.0110	0.0014	0.0097
256	0.0109	0.0014	0.0096
257	0.0108	0.0014	0.0095
258	0.0107	0.0013	0.0094
259	0.0107	0.0013	0.0093
260	0.0106	0.0013	0.0092
261	0.0105	0.0013	0.0092
262	0.0104	0.0013	0.0091
263	0.0103	0.0013	0.0090
264	0.0102	0.0013	0.0089
265	0.0101	0.0013	0.0089
266	0.0101	0.0013	0.0088
267	0.0100	0.0012	0.0087
268	0.0099	0.0012	0.0087
269	0.0098	0.0012	0.0086
270	0.0098	0.0012	0.0085
271	0.0097	0.0012	0.0085
272	0.0096	0.0012	0.0084
273	0.0096	0.0012	0.0084
274	0.0095	0.0012	0.0083
275	0.0094	0.0012	0.0082
276	0.0094	0.0012	0.0082
277	0.0093	0.0012	0.0081
278	0.0092	0.0012	0.0081
279	0.0092	0.0011	0.0080
280	0.0091	0.0011	0.0080
281	0.0091	0.0011	0.0079
282	0.0090	0.0011	0.0079
283	0.0089	0.0011	0.0078
284	0.0089	0.0011	0.0078
285	0.0088	0.0011	0.0077
286	0.0088	0.0011	0.0077
287	0.0087	0.0011	0.0076
288	0.0087	0.0011	0.0076

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Total soil rain loss = 0.63(In)  
 Total effective rainfall = 5.11(In)  
 Peak flow rate in flood hydrograph = 36.53(CFS)

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 +-----+  
 24 - H O U R S T O R M  
 R u n o f f H y d r o g r a p h  
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Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	10.0	20.0	30.0	40.0
0+ 5	0.0003	0.04	Q				
0+10	0.0021	0.27	Q				
0+15	0.0068	0.67	Q				
0+20	0.0135	0.98	Q				
0+25	0.0211	1.11	VQ				
0+30	0.0291	1.16	VQ				
0+35	0.0372	1.17	VQ				
0+40	0.0453	1.19	VQ				
0+45	0.0536	1.19	VQ				
0+50	0.0618	1.20	VQ				
0+55	0.0701	1.20	VQ				
1+ 0	0.0784	1.20	VQ				
1+ 5	0.0867	1.21	VQ				
1+10	0.0950	1.21	VQ				
1+15	0.1034	1.22	VQ				
1+20	0.1118	1.22	VQ				
1+25	0.1203	1.22	VQ				
1+30	0.1287	1.23	VQ				
1+35	0.1372	1.23	Q				
1+40	0.1457	1.24	Q				
1+45	0.1542	1.24	Q				
1+50	0.1628	1.24	Q				
1+55	0.1714	1.25	Q				
2+ 0	0.1800	1.25	Q				
2+ 5	0.1887	1.26	Q				
2+10	0.1974	1.26	Q				
2+15	0.2061	1.26	Q				
2+20	0.2148	1.27	Q				
2+25	0.2236	1.27	Q				
2+30	0.2324	1.28	Q				
2+35	0.2412	1.28	Q				
2+40	0.2501	1.29	Q				
2+45	0.2590	1.29	Q				
2+50	0.2679	1.30	Q				
2+55	0.2768	1.30	QV				
3+ 0	0.2858	1.30	QV				
3+ 5	0.2948	1.31	QV				



3+10	0.3039	1.31	QV				
3+15	0.3130	1.32	QV				
3+20	0.3221	1.32	QV				
3+25	0.3312	1.33	QV				
3+30	0.3404	1.33	QV				
3+35	0.3496	1.34	QV				
3+40	0.3589	1.34	QV				
3+45	0.3682	1.35	QV				
3+50	0.3775	1.35	QV				
3+55	0.3869	1.36	QV				
4+ 0	0.3963	1.36	QV				
4+ 5	0.4057	1.37	QV				
4+10	0.4152	1.37	Q V				
4+15	0.4247	1.38	Q V				
4+20	0.4342	1.39	Q V				
4+25	0.4438	1.39	Q V				
4+30	0.4534	1.40	Q V				
4+35	0.4631	1.40	Q V				
4+40	0.4727	1.41	Q V				
4+45	0.4825	1.41	Q V				
4+50	0.4923	1.42	Q V				
4+55	0.5021	1.43	Q V				
5+ 0	0.5119	1.43	Q V				
5+ 5	0.5218	1.44	Q V				
5+10	0.5318	1.44	Q V				
5+15	0.5418	1.45	Q V				
5+20	0.5518	1.46	Q V				
5+25	0.5619	1.46	Q V				
5+30	0.5720	1.47	Q V				
5+35	0.5821	1.48	Q V				
5+40	0.5923	1.48	Q V				
5+45	0.6026	1.49	Q V				
5+50	0.6129	1.50	Q V				
5+55	0.6232	1.50	Q V				
6+ 0	0.6336	1.51	Q V				
6+ 5	0.6441	1.52	Q V				
6+10	0.6545	1.52	Q V				
6+15	0.6651	1.53	Q V				
6+20	0.6757	1.54	Q V				
6+25	0.6863	1.54	Q V				
6+30	0.6970	1.55	Q V				
6+35	0.7077	1.56	Q V				
6+40	0.7185	1.57	Q V				
6+45	0.7294	1.58	Q V				
6+50	0.7403	1.58	Q V				
6+55	0.7512	1.59	Q V				
7+ 0	0.7623	1.60	Q V				
7+ 5	0.7733	1.61	Q V				
7+10	0.7845	1.62	Q V				
7+15	0.7956	1.62	Q V				

7+20	0.8069	1.63	Q	V
7+25	0.8182	1.64	Q	V
7+30	0.8296	1.65	Q	V
7+35	0.8410	1.66	Q	V
7+40	0.8525	1.67	Q	V
7+45	0.8640	1.68	Q	V
7+50	0.8756	1.69	Q	V
7+55	0.8873	1.70	Q	V
8+ 0	0.8991	1.71	Q	V
8+ 5	0.9109	1.72	Q	V
8+10	0.9228	1.73	Q	V
8+15	0.9347	1.74	Q	V
8+20	0.9468	1.75	Q	V
8+25	0.9589	1.76	Q	V
8+30	0.9710	1.77	Q	V
8+35	0.9833	1.78	Q	V
8+40	0.9956	1.79	Q	V
8+45	1.0080	1.80	Q	V
8+50	1.0205	1.81	Q	V
8+55	1.0330	1.82	Q	V
9+ 0	1.0457	1.84	Q	V
9+ 5	1.0584	1.85	Q	V
9+10	1.0712	1.86	Q	V
9+15	1.0841	1.87	Q	V
9+20	1.0971	1.88	Q	V
9+25	1.1102	1.90	Q	V
9+30	1.1233	1.91	Q	V
9+35	1.1366	1.92	Q	V
9+40	1.1499	1.94	Q	V
9+45	1.1634	1.95	Q	V
9+50	1.1769	1.97	Q	V
9+55	1.1906	1.98	Q	V
10+ 0	1.2043	2.00	Q	V
10+ 5	1.2182	2.01	Q	V
10+10	1.2321	2.03	Q	V
10+15	1.2462	2.04	Q	V
10+20	1.2604	2.06	Q	V
10+25	1.2747	2.08	Q	V
10+30	1.2891	2.09	Q	V
10+35	1.3036	2.11	Q	V
10+40	1.3182	2.13	Q	V
10+45	1.3330	2.15	Q	V
10+50	1.3479	2.16	Q	V
10+55	1.3630	2.18	Q	V
11+ 0	1.3781	2.20	Q	V
11+ 5	1.3934	2.22	Q	V
11+10	1.4089	2.24	Q	V
11+15	1.4245	2.26	Q	V
11+20	1.4402	2.29	Q	V
11+25	1.4561	2.31	Q	V

11+30	1.4722	2.33	Q	V		
11+35	1.4884	2.35	Q	V		
11+40	1.5048	2.38	Q	V		
11+45	1.5213	2.40	Q	V		
11+50	1.5381	2.43	Q	V		
11+55	1.5550	2.46	Q	V		
12+ 0	1.5721	2.48	Q	V		
12+ 5	1.5894	2.52	Q	V		
12+10	1.6074	2.62	Q	V		
12+15	1.6265	2.76	Q	V		
12+20	1.6463	2.88	Q	V		
12+25	1.6666	2.95	Q	V		
12+30	1.6873	3.00	Q	V		
12+35	1.7082	3.03	Q	V		
12+40	1.7293	3.07	Q	V		
12+45	1.7507	3.11	Q	V		
12+50	1.7724	3.15	Q	V		
12+55	1.7944	3.19	Q	V		
13+ 0	1.8166	3.23	Q	V		
13+ 5	1.8392	3.27	Q	V		
13+10	1.8620	3.32	Q	V		
13+15	1.8852	3.36	Q	V		
13+20	1.9087	3.41	Q	V		
13+25	1.9325	3.46	Q	V		
13+30	1.9567	3.52	Q	V		
13+35	1.9813	3.57	Q	V		
13+40	2.0063	3.63	Q	V		
13+45	2.0317	3.69	Q	V		
13+50	2.0576	3.75	Q	V		
13+55	2.0839	3.82	Q	V		
14+ 0	2.1107	3.89	Q	V		
14+ 5	2.1381	3.97	Q	V		
14+10	2.1659	4.05	Q	V		
14+15	2.1944	4.13	Q	V		
14+20	2.2235	4.23	Q	V		
14+25	2.2533	4.32	Q	V		
14+30	2.2837	4.42	Q	V		
14+35	2.3150	4.54	Q	V		
14+40	2.3470	4.65	Q	V		
14+45	2.3800	4.78	Q	V		
14+50	2.4139	4.92	Q	V		
14+55	2.4489	5.08	Q	V		
15+ 0	2.4850	5.25	Q	V		
15+ 5	2.5224	5.43	Q	V		
15+10	2.5613	5.64	Q	V		
15+15	2.6017	5.87	Q	V		
15+20	2.6440	6.14	Q	V		
15+25	2.6881	6.40	Q	V		
15+30	2.7328	6.49	Q	V		
15+35	2.7772	6.45	Q	V		

15+40	2.8227	6.61	Q		V		
15+45	2.8716	7.10	Q		V		
15+50	2.9264	7.95	Q		V		
15+55	2.9903	9.28		Q	V		
16+ 0	3.0701	11.59		Q	V		
16+ 5	3.1875	17.05			Q	V	
16+10	3.3849	28.67				V	Q
16+15	3.6365	36.53				V	Q
16+20	3.8365	29.04				VQ	
16+25	3.9550	17.21			Q	V	
16+30	4.0308	11.00				V	
16+35	4.0867	8.12				V	
16+40	4.1365	7.23				Q	
16+45	4.1803	6.37		Q		V	
16+50	4.2194	5.67		Q		V	
16+55	4.2556	5.26		Q		V	
17+ 0	4.2895	4.93	Q			V	
17+ 5	4.3216	4.66	Q			V	
17+10	4.3521	4.43	Q			V	
17+15	4.3812	4.22	Q			V	
17+20	4.4091	4.05	Q			V	
17+25	4.4358	3.89	Q			V	
17+30	4.4617	3.75	Q			V	
17+35	4.4866	3.63	Q			V	
17+40	4.5108	3.51	Q			V	
17+45	4.5343	3.41	Q			V	
17+50	4.5571	3.31	Q			V	
17+55	4.5793	3.23	Q			V	
18+ 0	4.6010	3.15	Q			V	
18+ 5	4.6221	3.06	Q			V	
18+10	4.6422	2.92	Q			V	
18+15	4.6611	2.74	Q			V	
18+20	4.6789	2.59	Q			V	
18+25	4.6962	2.50	Q			V	
18+30	4.7129	2.43	Q			V	
18+35	4.7293	2.38	Q			V	
18+40	4.7453	2.33	Q			V	
18+45	4.7611	2.28	Q			V	
18+50	4.7765	2.24	Q			V	
18+55	4.7916	2.20	Q			V	
19+ 0	4.8065	2.16	Q			V	
19+ 5	4.8212	2.13	Q			V	
19+10	4.8356	2.09	Q			V	
19+15	4.8497	2.06	Q			V	
19+20	4.8637	2.02	Q			V	
19+25	4.8774	1.99	Q			V	
19+30	4.8909	1.96	Q			V	
19+35	4.9043	1.94	Q			V	
19+40	4.9174	1.91	Q			V	
19+45	4.9304	1.88	Q			V	

19+50	4.9432	1.86	Q				V
19+55	4.9558	1.83	Q				V
20+ 0	4.9683	1.81	Q				V
20+ 5	4.9806	1.79	Q				V
20+10	4.9927	1.77	Q				V
20+15	5.0048	1.74	Q				V
20+20	5.0166	1.72	Q				V
20+25	5.0284	1.70	Q				V
20+30	5.0400	1.69	Q				V
20+35	5.0515	1.67	Q				V
20+40	5.0628	1.65	Q				V
20+45	5.0741	1.63	Q				V
20+50	5.0852	1.61	Q				V
20+55	5.0962	1.60	Q				V
21+ 0	5.1071	1.58	Q				V
21+ 5	5.1179	1.57	Q				V
21+10	5.1285	1.55	Q				V
21+15	5.1391	1.54	Q				V
21+20	5.1496	1.52	Q				V
21+25	5.1600	1.51	Q				V
21+30	5.1703	1.49	Q				V
21+35	5.1805	1.48	Q				V
21+40	5.1906	1.47	Q				V
21+45	5.2006	1.45	Q				V
21+50	5.2105	1.44	Q				V
21+55	5.2204	1.43	Q				V
22+ 0	5.2301	1.42	Q				V
22+ 5	5.2398	1.41	Q				V
22+10	5.2494	1.40	Q				V
22+15	5.2590	1.38	Q				V
22+20	5.2684	1.37	Q				V
22+25	5.2778	1.36	Q				V
22+30	5.2871	1.35	Q				V
22+35	5.2964	1.34	Q				V
22+40	5.3056	1.33	Q				V
22+45	5.3147	1.32	Q				V
22+50	5.3237	1.31	Q				V
22+55	5.3327	1.30	Q				V
23+ 0	5.3416	1.29	Q				V
23+ 5	5.3505	1.29	Q				V
23+10	5.3593	1.28	Q				V
23+15	5.3680	1.27	Q				V
23+20	5.3767	1.26	Q				V
23+25	5.3853	1.25	Q				V
23+30	5.3939	1.24	Q				V
23+35	5.4024	1.24	Q				V
23+40	5.4108	1.23	Q				V
23+45	5.4192	1.22	Q				V
23+50	5.4276	1.21	Q				V
23+55	5.4359	1.20	Q				V

24+ 0

5.4441

1.20 |Q

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V|

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# APPENDIX D

## BASIN ROUTING ANALYSIS



Date: 03-22-2022  
 Project Name: 5355 Airport Drive

City / County: Ontario  
 State: California

# CMP: Underground Detention System

## Storage Volume Estimation

Designed By: JL  
 Company: WLG  
 Telephone:

-Adjustable Input Cells

Contech Engineered Solutions, LLC is pleased to offer the following estimate of storage volume for the above named project. The results are submitted as an estimate only, without liability on the part of Contech Engineered Solutions, LLC for accuracy or suitability to any particular application and are subject to verification of the Engineer of Record. This tool is only applicable for rectangular shaped systems.

### Summary of Inputs

System Information		Backfill Information		Pipe & Analysis Information	
Out-to-out length (ft):	615.0	Backfill Porosity (%):	40%	System Diameter (in):	96
Out-to-out width (ft):	30.0	Depth Above Pipe (in):	12.0	Pipe Spacing (in):	2
Number of Manifolds (ea):	1.0	Depth Below Pipe (in):	12.0	Incremental Analysis (in):	2
Number of Barrels (ea):	3.0	Width At Ends (ft):	2.0	System Invert (Elevation):	966
		Width At Sides (ft):	2.0		

### Storage Volume Estimation

System		Pipe		Stone		Total System		Miscellaneous		Staging	
Depth (ft)	Elevation (ft)	Incremental Storage (cf)	Cumulative Storage (cf)	Incremental Storage (cf)	Cumulative Storage (cf)	Incremental Storage (cf)	Cumulative Storage (cf)	Percent Open Storage (%)	Ave. Surface Area (sf)	Cumulative Storage (Ac-ft)	Outflow (cfs)
0.00	966.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	8,418.4		
0.17	966.16	0.0	0.0	1,403.1	1,403.1	1,403.1	1,403.1	0.0%	8,418.4		
0.33	966.33	0.0	0.0	1,403.1	2,806.1	1,403.1	2,806.1	0.0%	8,418.4		
0.50	966.50	0.0	0.0	1,403.1	4,209.2	1,403.1	4,209.2	0.0%	8,418.4		
0.67	966.66	0.0	0.0	1,403.1	5,612.3	1,403.1	5,612.3	0.0%	8,418.4		
0.83	966.83	0.0	0.0	1,403.1	7,015.3	1,403.1	7,015.3	0.0%	8,418.4		
1.00	967.00	0.0	0.0	1,403.1	8,418.4	1,403.1	8,418.4	0.0%	8,418.4	0.19	0.00
1.17	967.16	472.0	472.0	1,214.3	9,632.7	1,686.3	10,104.7	4.7%	10,956.4		
1.33	967.33	854.5	1,326.5	1,061.3	10,693.9	1,915.8	12,020.4	11.0%	11,969.2		
1.50	967.50	1,094.7	2,421.2	965.2	11,659.1	2,059.9	14,080.3	17.2%	12,719.7		
1.67	967.66	1,282.1	3,703.3	890.2	12,549.4	2,172.3	16,252.6	22.8%	13,329.7		
1.83	967.83	1,437.8	5,141.1	827.9	13,377.3	2,265.8	18,518.4	27.8%	13,846.6		
2.00	968.00	1,571.5	6,712.6	774.5	14,151.7	2,346.0	20,864.4	32.2%	14,295.1	0.48	0.00
2.17	968.16	1,688.4	8,401.0	727.7	14,879.5	2,416.1	23,280.5	36.1%	14,690.0		
2.33	968.33	1,791.8	10,192.8	686.4	15,565.8	2,478.1	25,758.6	39.6%	15,040.7		
2.50	968.50	1,883.9	12,076.6	649.5	16,215.3	2,533.4	28,292.0	42.7%	15,354.1		
2.67	968.66	1,966.3	14,042.9	616.5	16,831.9	2,582.8	30,874.8	45.5%	15,634.9		
2.83	968.83	2,040.2	16,083.2	587.0	17,418.9	2,627.2	33,502.0	48.0%	15,886.9		
3.00	969.00	2,106.5	18,189.7	560.4	17,979.3	2,667.0	36,169.0	50.3%	16,112.9	0.83	0.00
3.17	969.16	2,166.0	20,355.7	536.7	18,516.0	2,702.6	38,871.7	52.4%	16,315.0		
3.33	969.33	2,219.0	22,574.7	515.5	19,031.5	2,734.5	41,606.1	54.3%	16,495.2		
3.50	969.50	2,266.2	24,840.9	496.6	19,528.1	2,762.8	44,368.9	56.0%	16,654.8		
3.67	969.66	2,307.8	27,148.7	479.9	20,008.0	2,787.8	47,156.7	57.6%	16,795.1		
3.83	969.83	2,344.2	29,492.9	465.4	20,473.4	2,809.6	49,966.3	59.0%	16,916.9		
4.00	970.00	2,375.6	31,868.4	452.8	20,926.2	2,828.4	52,794.7	60.4%	17,021.1	1.21	0.00
4.17	970.16	2,402.1	34,270.6	442.2	21,368.4	2,844.3	55,639.0	61.6%	17,108.2		
4.33	970.33	2,424.0	36,694.6	433.5	21,801.9	2,857.5	58,496.5	62.7%	17,178.9		
4.50	970.50	2,441.4	39,136.0	426.5	22,228.4	2,867.9	61,364.4	63.8%	17,233.5		
4.67	970.66	2,454.4	41,590.4	421.3	22,649.7	2,875.7	64,240.1	64.7%	17,272.3		
4.83	970.83	2,463.0	44,053.4	417.9	23,067.6	2,880.9	67,121.0	65.6%	17,295.5		
5.00	971.00	2,467.3	46,520.7	416.2	23,483.7	2,883.4	70,004.4	66.5%	17,303.2	1.61	4.00
5.17	971.16	2,467.3	48,988.0	416.2	23,899.9	2,883.4	72,887.9	67.2%	17,295.5		
5.33	971.33	2,463.0	51,451.0	417.9	24,317.7	2,880.9	75,768.7	67.9%	17,272.3		
5.50	971.50	2,454.4	53,905.4	421.3	24,739.0	2,875.7	78,644.4	68.5%	17,233.5		
5.67	971.66	2,441.4	56,346.8	426.5	25,165.5	2,867.9	81,512.4	69.1%	17,178.9		
5.83	971.83	2,424.0	58,770.8	433.5	25,599.0	2,857.5	84,369.8	69.7%	17,108.2		
6.00	972.00	2,402.1	61,173.0	442.2	26,041.2	2,844.3	87,214.2	70.1%	17,021.1	2.00	4.00
6.17	972.16	2,375.6	63,548.5	452.8	26,494.1	2,828.4	90,042.6	70.6%	16,916.9		
6.33	972.33	2,344.2	65,892.7	465.4	26,959.4	2,809.6	92,852.2	71.0%	16,795.1		
6.50	972.50	2,307.8	68,200.5	479.9	27,439.4	2,787.8	95,639.9	71.3%	16,654.8		
6.67	972.66	2,266.2	70,466.7	496.6	27,936.0	2,762.8	98,402.7	71.6%	16,495.2		
6.83	972.83	2,219.0	72,685.8	515.5	28,451.4	2,734.5	101,137.2	71.9%	16,315.0		
7.00	973.00	2,166.0	74,851.7	536.7	28,988.1	2,702.6	103,839.8	72.1%	16,112.9	2.38	4.00
7.17	973.16	2,106.5	76,958.3	560.4	29,548.6	2,667.0	106,506.8	72.3%	15,886.9		
7.33	973.33	2,040.2	78,998.5	587.0	30,135.5	2,627.2	109,134.0	72.4%	15,634.9		
7.50	973.50	1,966.3	80,964.8	616.5	30,752.1	2,582.8	111,716.9	72.5%	15,354.1		
7.67	973.66	1,883.9	82,848.6	649.5	31,401.6	2,533.4	114,250.2	72.5%	15,040.7		
7.83	973.83	1,791.8	84,640.4	686.4	32,088.0	2,478.1	116,728.4	72.5%	14,690.0		
8.00	974.00	1,688.4	86,328.8	727.7	32,815.7	2,416.1	119,144.5	72.5%	14,295.1	2.74	4.00
8.17	974.16	1,571.5	87,900.3	774.5	33,590.2	2,346.0	121,490.4	72.4%	13,846.6		
8.33	974.33	1,437.8	89,338.1	827.9	34,418.1	2,265.8	123,756.2	72.2%	13,329.7		
8.50	974.50	1,282.1	90,620.2	890.2	35,308.3	2,172.3	125,928.5	72.0%	12,719.7		
8.67	974.66	1,094.7	91,714.9	965.2	36,273.5	2,059.9	127,988.4	71.7%	11,969.2		
8.83	974.83	854.5	92,569.4	1,061.3	37,334.8	1,915.8	129,904.2	71.3%	10,956.4		
9.00	975.00	472.0	93,041.4	1,214.3	38,549.0	1,686.3	131,590.4	70.7%	8,418.4	3.02	4.00

These results are submitted to you as a guideline only, without liability on the part of CONTECH Engineered Solutions, LLC for accuracy or suitability to any particular application, and are subject to your verification.



# PROJECT SUMMARY

## CALCULATION DETAILS

- LOADING = HS20/HS25
- APPROX. LINEAR FOOTAGE = 1,851 LF

## STORAGE SUMMARY

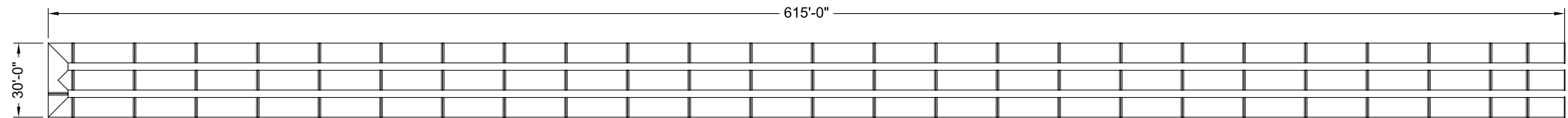
- STORAGE VOLUME REQUIRED = 140,000 CF
- PIPE STORAGE VOLUME = 93,041 CF
- BACKFILL STORAGE VOLUME = 46,967 CF
- TOTAL STORAGE PROVIDED = 140,009 CF

## PIPE DETAILS

- DIAMETER = 96"
- CORRUGATION = 5x1
- GAGE = 16
- COATING = ALT2
- WALL TYPE = PERFORATED
- BARREL SPACING = 36"

## BACKFILL DETAILS

- WIDTH AT ENDS = 24"
- ABOVE PIPE = 12"
- WIDTH AT SIDES = 24"
- BELOW PIPE = 12"



## NOTES


- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE. ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE 2<sup>2</sup>/<sub>3</sub>" x 1<sup>1</sup>/<sub>2</sub>" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- BAND TYPE TO BE DETERMINED UPON FINAL DESIGN.
- THE PROJECT SUMMARY IS REFLECTIVE OF THE DYODS DESIGN, QUANTITIES ARE APPROX. AND SHOULD BE VERIFIED UPON FINAL DESIGN AND APPROVAL. FOR EXAMPLE, TOTAL EXCAVATION DOES NOT CONSIDER ALL VARIABLES SUCH AS SHORING AND ONLY ACCOUNTS FOR MATERIAL WITHIN THE ESTIMATED EXCAVATION FOOTPRINT.
- THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES AND DO NOT REFLECT ANY LOCAL PREFERENCES OR REGULATIONS. PLEASE CONTACT YOUR LOCAL CONTECH REP FOR MODIFICATIONS.

**ASSEMBLY**  
SCALE: 1" = 60'

C:\EXPORT\TEMPLATES\CMP\_18.DWG 10/18/2019 10:02 AM

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DATE	REVISION DESCRIPTION	BY

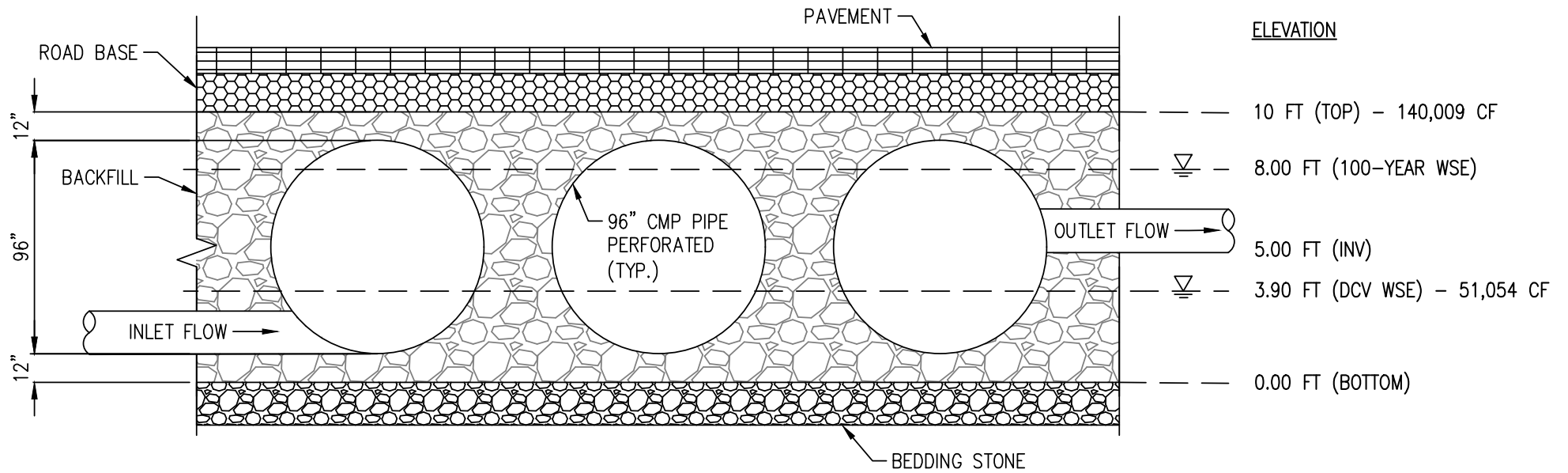

  
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**CMP DETENTION SYSTEMS**  
 CONTECH  
**DYODS**  
 DRAWING

DY014828 5355 Airport Drive  
 Underground Infiltration Chamber #1  
 Ontario, CA  
**DETENTION SYSTEM**

PROJECT No.: 9371	SEQ. No.: 14828	DATE: 3/23/2022
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.:		<b>1</b>

# CHAMBER SECTION DETAIL



FLOOD HYDROGRAPH ROUTING PROGRAM  
Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005  
Study date: 03/23/22

-----  
Job No. 2021-502  
5355 Airport Drive  
100 YR BASIN ROUTING ANALYSIS  
UNDERGROUND INFILTRATION CHAMBER No. 1  
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Program License Serial Number 6277

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\*\*\*\*\* HYDROGRAPH INFORMATION \*\*\*\*\*

From study/file name: 2021502UH100POST.rte  
\*\*\*\*\*HYDROGRAPH DATA\*\*\*\*\*  
Number of intervals = 296  
Time interval = 5.0 (Min.)  
Maximum/Peak flow rate = 36.529 (CFS)  
Total volume = 5.464 (Ac.Ft)  
Status of hydrographs being held in storage  
Stream 1 Stream 2 Stream 3 Stream 4 Stream 5  
Peak (CFS) 0.000 0.000 0.000 0.000 0.000  
Vol (Ac.Ft) 0.000 0.000 0.000 0.000 0.000  
\*\*\*\*\*

+++++  
Process from Point/Station 16.000 to Point/Station 16.000  
\*\*\*\* RETARDING BASIN ROUTING \*\*\*\*

-----  
User entry of depth-outflow-storage data  
-----

Total number of inflow hydrograph intervals = 296  
Hydrograph time unit = 5.000 (Min.)  
Initial depth in storage basin = 0.00(Ft.)  
-----

-----  
Initial basin depth = 0.00 (Ft.)  
Initial basin storage = 0.00 (Ac.Ft)  
Initial basin outflow = 0.00 (CFS)

-----  
 -----  
 Depth vs. Storage and Depth vs. Discharge data:  
 Basin Depth    Storage    Outflow    (S-0\*dt/2)    (S+0\*dt/2)  
           (Ft.)        (Ac.Ft)    (CFS)        (Ac.Ft)        (Ac.Ft)

-----

0.000	0.000	0.000	0.000	0.000
1.000	0.190	0.001	0.190	0.190
2.000	0.480	0.001	0.480	0.480
3.000	0.830	0.001	0.830	0.830
4.000	1.210	0.001	1.210	1.210
5.000	1.610	4.000	1.596	1.624
6.000	2.000	4.000	1.986	2.014
7.000	2.380	4.000	2.366	2.394
8.000	2.740	4.000	2.726	2.754
9.000	3.020	4.000	3.006	3.034

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 Hydrograph Detention Basin Routing  
 -----

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

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Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	0	9.1	18.26	27.40	36.53	Depth (Ft.)
0.083	0.04	0.00	0.000	O					0.00
0.167	0.27	0.00	0.001	O					0.01
0.250	0.67	0.00	0.004	O					0.02
0.333	0.98	0.00	0.010	O					0.05
0.417	1.11	0.00	0.017	O					0.09
0.500	1.16	0.00	0.025	OI					0.13
0.583	1.17	0.00	0.033	OI					0.17
0.667	1.19	0.00	0.041	OI					0.22
0.750	1.19	0.00	0.049	OI					0.26
0.833	1.20	0.00	0.058	OI					0.30
0.917	1.20	0.00	0.066	OI					0.35
1.000	1.20	0.00	0.074	OI					0.39
1.083	1.21	0.00	0.083	OI					0.43
1.167	1.21	0.00	0.091	OI					0.48
1.250	1.22	0.00	0.099	OI					0.52
1.333	1.22	0.00	0.108	OI					0.57
1.417	1.22	0.00	0.116	OI					0.61
1.500	1.23	0.00	0.124	OI					0.66
1.583	1.23	0.00	0.133	OI					0.70
1.667	1.24	0.00	0.141	OI					0.74
1.750	1.24	0.00	0.150	OI					0.79
1.833	1.24	0.00	0.158	OI					0.83
1.917	1.25	0.00	0.167	OI					0.88
2.000	1.25	0.00	0.176	OI					0.92
2.083	1.26	0.00	0.184	OI					0.97
2.167	1.26	0.00	0.193	OI					1.01

-----

2.250	1.26	0.00	0.202	OI					1.04
2.333	1.27	0.00	0.210	OI					1.07
2.417	1.27	0.00	0.219	OI					1.10
2.500	1.28	0.00	0.228	OI					1.13
2.583	1.28	0.00	0.237	OI					1.16
2.667	1.29	0.00	0.246	OI					1.19
2.750	1.29	0.00	0.254	OI					1.22
2.833	1.30	0.00	0.263	OI					1.25
2.917	1.30	0.00	0.272	OI					1.28
3.000	1.30	0.00	0.281	OI					1.31
3.083	1.31	0.00	0.290	OI					1.35
3.167	1.31	0.00	0.299	OI					1.38
3.250	1.32	0.00	0.308	OI					1.41
3.333	1.32	0.00	0.317	OI					1.44
3.417	1.33	0.00	0.326	OI					1.47
3.500	1.33	0.00	0.336	OI					1.50
3.583	1.34	0.00	0.345	OI					1.53
3.667	1.34	0.00	0.354	OI					1.57
3.750	1.35	0.00	0.363	OI					1.60
3.833	1.35	0.00	0.373	OI					1.63
3.917	1.36	0.00	0.382	OI					1.66
4.000	1.36	0.00	0.391	OI					1.69
4.083	1.37	0.00	0.401	OI					1.73
4.167	1.37	0.00	0.410	OI					1.76
4.250	1.38	0.00	0.420	OI					1.79
4.333	1.39	0.00	0.429	OI					1.82
4.417	1.39	0.00	0.439	OI					1.86
4.500	1.40	0.00	0.448	OI					1.89
4.583	1.40	0.00	0.458	OI					1.92
4.667	1.41	0.00	0.468	OI					1.96
4.750	1.41	0.00	0.477	OI					1.99
4.833	1.42	0.00	0.487	OI					2.02
4.917	1.43	0.00	0.497	OI					2.05
5.000	1.43	0.00	0.507	OI					2.08
5.083	1.44	0.00	0.517	OI					2.10
5.167	1.44	0.00	0.526	OI					2.13
5.250	1.45	0.00	0.536	OI					2.16
5.333	1.46	0.00	0.546	OI					2.19
5.417	1.46	0.00	0.556	OI					2.22
5.500	1.47	0.00	0.567	OI					2.25
5.583	1.48	0.00	0.577	OI					2.28
5.667	1.48	0.00	0.587	OI					2.31
5.750	1.49	0.00	0.597	OI					2.33
5.833	1.50	0.00	0.607	OI					2.36
5.917	1.50	0.00	0.618	OI					2.39
6.000	1.51	0.00	0.628	OI					2.42
6.083	1.52	0.00	0.638	OI					2.45
6.167	1.52	0.00	0.649	OI					2.48
6.250	1.53	0.00	0.659	OI					2.51
6.333	1.54	0.00	0.670	OI					2.54

6.417	1.54	0.00	0.681	OI					2.57
6.500	1.55	0.00	0.691	OI					2.60
6.583	1.56	0.00	0.702	OI					2.63
6.667	1.57	0.00	0.713	OI					2.66
6.750	1.58	0.00	0.724	OI					2.70
6.833	1.58	0.00	0.734	OI					2.73
6.917	1.59	0.00	0.745	OI					2.76
7.000	1.60	0.00	0.756	OI					2.79
7.083	1.61	0.00	0.767	OI					2.82
7.167	1.62	0.00	0.778	OI					2.85
7.250	1.62	0.00	0.790	OI					2.88
7.333	1.63	0.00	0.801	OI					2.92
7.417	1.64	0.00	0.812	OI					2.95
7.500	1.65	0.00	0.823	OI					2.98
7.583	1.66	0.00	0.835	OI					3.01
7.667	1.67	0.00	0.846	OI					3.04
7.750	1.68	0.00	0.858	OI					3.07
7.833	1.69	0.00	0.869	OI					3.10
7.917	1.70	0.00	0.881	OI					3.13
8.000	1.71	0.00	0.893	OI					3.16
8.083	1.72	0.00	0.904	OI					3.20
8.167	1.73	0.00	0.916	OI					3.23
8.250	1.74	0.00	0.928	OI					3.26
8.333	1.75	0.00	0.940	OI					3.29
8.417	1.76	0.00	0.952	OI					3.32
8.500	1.77	0.00	0.964	OI					3.35
8.583	1.78	0.00	0.977	OI					3.39
8.667	1.79	0.00	0.989	OI					3.42
8.750	1.80	0.00	1.001	OI					3.45
8.833	1.81	0.00	1.014	OI					3.48
8.917	1.82	0.00	1.026	OI					3.52
9.000	1.84	0.00	1.039	OI					3.55
9.083	1.85	0.00	1.051	OI					3.58
9.167	1.86	0.00	1.064	OI					3.62
9.250	1.87	0.00	1.077	OI					3.65
9.333	1.88	0.00	1.090	OI					3.68
9.417	1.90	0.00	1.103	OI					3.72
9.500	1.91	0.00	1.116	OI					3.75
9.583	1.92	0.00	1.129	OI					3.79
9.667	1.94	0.00	1.143	OI					3.82
9.750	1.95	0.00	1.156	OI					3.86
9.833	1.97	0.00	1.169	OI					3.89
9.917	1.98	0.00	1.183	OI					3.93
10.000	2.00	0.00	1.197	OI					3.96
10.083	2.01	0.01	1.210	OI					4.00
10.167	2.03	0.14	1.224	OI					4.03
10.250	2.04	0.27	1.236	OI					4.07
10.333	2.06	0.38	1.248	OI					4.10
10.417	2.08	0.50	1.260	OI					4.12
10.500	2.09	0.60	1.270	OI					4.15

10.583	2.11	0.70	1.280	OI					4.18
10.667	2.13	0.80	1.290	OI					4.20
10.750	2.15	0.89	1.298	OI					4.22
10.833	2.16	0.97	1.307	OI					4.24
10.917	2.18	1.05	1.315	OI					4.26
11.000	2.20	1.13	1.323	OI					4.28
11.083	2.22	1.20	1.330	0					4.30
11.167	2.24	1.27	1.337	0					4.32
11.250	2.26	1.33	1.343	0					4.33
11.333	2.29	1.40	1.350	OI					4.35
11.417	2.31	1.46	1.356	OI					4.36
11.500	2.33	1.51	1.361	OI					4.38
11.583	2.35	1.57	1.367	OI					4.39
11.667	2.38	1.62	1.372	OI					4.41
11.750	2.40	1.67	1.377	OI					4.42
11.833	2.43	1.72	1.382	OI					4.43
11.917	2.46	1.77	1.387	OI					4.44
12.000	2.48	1.82	1.392	OI					4.45
12.083	2.52	1.86	1.396	OI					4.47
12.167	2.62	1.91	1.401	OI					4.48
12.250	2.76	1.96	1.406	OI					4.49
12.333	2.88	2.02	1.412	OI					4.50
12.417	2.95	2.08	1.418	OI					4.52
12.500	3.00	2.14	1.424	OI					4.53
12.583	3.03	2.20	1.430	OI					4.55
12.667	3.07	2.25	1.435	OI					4.56
12.750	3.11	2.31	1.441	0					4.58
12.833	3.15	2.36	1.446	0					4.59
12.917	3.19	2.42	1.452	0					4.60
13.000	3.23	2.47	1.457	0					4.62
13.083	3.27	2.52	1.462	0					4.63
13.167	3.32	2.57	1.467	0					4.64
13.250	3.36	2.62	1.472	0					4.66
13.333	3.41	2.68	1.478	0					4.67
13.417	3.46	2.73	1.483	OI					4.68
13.500	3.52	2.78	1.488	OI					4.69
13.583	3.57	2.83	1.493	OI					4.71
13.667	3.63	2.88	1.498	OI					4.72
13.750	3.69	2.93	1.503	OI					4.73
13.833	3.75	2.98	1.508	OI					4.75
13.917	3.82	3.04	1.514	OI					4.76
14.000	3.89	3.09	1.519	OI					4.77
14.083	3.97	3.15	1.525	OI					4.79
14.167	4.05	3.20	1.530	OI					4.80
14.250	4.13	3.26	1.536	OI					4.82
14.333	4.23	3.32	1.542	OI					4.83
14.417	4.32	3.39	1.549	OI					4.85
14.500	4.42	3.45	1.555	0					4.86
14.583	4.54	3.52	1.562	0					4.88
14.667	4.65	3.59	1.569	OI					4.90

14.750	4.78	3.67	1.577	OI					4.92	
14.833	4.92	3.75	1.585	OI					4.94	
14.917	5.08	3.83	1.593	OI					4.96	
15.000	5.25	3.92	1.602	OI					4.98	
15.083	5.43	4.00	1.611	OI					5.00	
15.167	5.64	4.00	1.622	OI					5.03	
15.250	5.87	4.00	1.634	O I					5.06	
15.333	6.14	4.00	1.648	O I					5.10	
15.417	6.40	4.00	1.664	O I					5.14	
15.500	6.49	4.00	1.680	O I					5.18	
15.583	6.45	4.00	1.697	O I					5.22	
15.667	6.61	4.00	1.715	O I					5.27	
15.750	7.10	4.00	1.735	O I					5.32	
15.833	7.95	4.00	1.759	O I					5.38	
15.917	9.28	4.00	1.791	O	I				5.46	
16.000	11.59	4.00	1.835	O		I			5.58	
16.083	17.05	4.00	1.906	O			I		5.76	
16.167	28.67	4.00	2.036	O				I	6.09	
16.250	36.53	4.00	2.233	O					I	6.61
16.333	29.04	4.00	2.431	O				I		7.14
16.417	17.21	4.00	2.563	O		I				7.51
16.500	11.00	4.00	2.632	O		I				7.70
16.583	8.12	4.00	2.671	O	I					7.81
16.667	7.23	4.00	2.696	O	I					7.88
16.750	6.37	4.00	2.715	O I						7.93
16.833	5.67	4.00	2.729	OI						7.97
16.917	5.26	4.00	2.739	OI						8.00
17.000	4.93	4.00	2.747	OI						8.02
17.083	4.66	4.00	2.752	OI						8.04
17.167	4.43	4.00	2.756	O						8.06
17.250	4.22	4.00	2.758	O						8.06
17.333	4.05	4.00	2.759	O						8.07
17.417	3.89	4.00	2.759	O						8.07
17.500	3.75	4.00	2.758	O						8.06
17.583	3.63	4.00	2.755	O						8.06
17.667	3.51	4.00	2.752	O						8.04
17.750	3.41	4.00	2.749	IO						8.03
17.833	3.31	4.00	2.744	IO						8.02
17.917	3.23	4.00	2.739	IO						8.00
18.000	3.15	4.00	2.734	IO						7.98
18.083	3.06	4.00	2.728	IO						7.97
18.167	2.92	4.00	2.721	IO						7.95
18.250	2.74	4.00	2.713	IO						7.92
18.333	2.59	4.00	2.703	IO						7.90
18.417	2.50	4.00	2.693	IO						7.87
18.500	2.43	4.00	2.683	IO						7.84
18.583	2.38	4.00	2.672	IO						7.81
18.667	2.33	4.00	2.660	IO						7.78
18.750	2.28	4.00	2.649	IO						7.75
18.833	2.24	4.00	2.637	I O						7.71



18.917	2.20	4.00	2.625	I 0					7.68
19.000	2.16	4.00	2.612	I 0					7.64
19.083	2.13	4.00	2.599	I 0					7.61
19.167	2.09	4.00	2.586	I 0					7.57
19.250	2.06	4.00	2.573	I 0					7.54
19.333	2.02	4.00	2.559	I 0					7.50
19.417	1.99	4.00	2.546	I 0					7.46
19.500	1.96	4.00	2.532	I 0					7.42
19.583	1.94	4.00	2.518	I 0					7.38
19.667	1.91	4.00	2.503	I 0					7.34
19.750	1.88	4.00	2.489	I 0					7.30
19.833	1.86	4.00	2.474	I 0					7.26
19.917	1.83	4.00	2.459	I 0					7.22
20.000	1.81	4.00	2.444	I 0					7.18
20.083	1.79	4.00	2.429	I 0					7.14
20.167	1.77	4.00	2.414	I 0					7.09
20.250	1.74	4.00	2.398	I 0					7.05
20.333	1.72	4.00	2.383	I 0					7.01
20.417	1.70	4.00	2.367	I 0					6.97
20.500	1.69	4.00	2.351	I 0					6.92
20.583	1.67	4.00	2.335	I 0					6.88
20.667	1.65	4.00	2.319	I 0					6.84
20.750	1.63	4.00	2.303	I 0					6.80
20.833	1.61	4.00	2.287	I 0					6.75
20.917	1.60	4.00	2.270	I 0					6.71
21.000	1.58	4.00	2.253	I 0					6.67
21.083	1.57	4.00	2.237	I 0					6.62
21.167	1.55	4.00	2.220	I 0					6.58
21.250	1.54	4.00	2.203	I 0					6.53
21.333	1.52	4.00	2.186	I 0					6.49
21.417	1.51	4.00	2.169	I 0					6.44
21.500	1.49	4.00	2.152	I 0					6.40
21.583	1.48	4.00	2.134	I 0					6.35
21.667	1.47	4.00	2.117	I 0					6.31
21.750	1.45	4.00	2.099	I 0					6.26
21.833	1.44	4.00	2.082	I 0					6.22
21.917	1.43	4.00	2.064	I 0					6.17
22.000	1.42	4.00	2.046	I 0					6.12
22.083	1.41	4.00	2.029	I 0					6.08
22.167	1.40	4.00	2.011	I 0					6.03
22.250	1.38	4.00	1.993	I 0					5.98
22.333	1.37	4.00	1.975	I 0					5.94
22.417	1.36	4.00	1.957	I 0					5.89
22.500	1.35	4.00	1.938	I 0					5.84
22.583	1.34	4.00	1.920	I 0					5.80
22.667	1.33	4.00	1.902	I 0					5.75
22.750	1.32	4.00	1.883	I 0					5.70
22.833	1.31	4.00	1.865	I 0					5.65
22.917	1.30	4.00	1.846	I 0					5.61
23.000	1.29	4.00	1.828	I 0					5.56

23.083	1.29	4.00	1.809	I 0					5.51
23.167	1.28	4.00	1.790	I 0					5.46
23.250	1.27	4.00	1.772	I 0					5.41
23.333	1.26	4.00	1.753	I 0					5.37
23.417	1.25	4.00	1.734	I 0					5.32
23.500	1.24	4.00	1.715	I 0					5.27
23.583	1.24	4.00	1.696	I 0					5.22
23.667	1.23	4.00	1.677	I 0					5.17
23.750	1.22	4.00	1.658	I 0					5.12
23.833	1.21	4.00	1.639	I 0					5.07
23.917	1.20	4.00	1.619	I 0					5.02
24.000	1.20	3.90	1.600	I 0					4.98
24.083	1.15	3.72	1.582	I 0					4.93
24.167	0.91	3.54	1.564	I 0					4.89
24.250	0.51	3.35	1.545	I 0					4.84
24.333	0.20	3.15	1.525	I 0					4.79
24.417	0.07	2.95	1.505	I 0					4.74
24.500	0.03	2.76	1.486	I 0					4.69
24.583	0.01	2.58	1.468	I 0					4.64
24.667	0.00	2.41	1.451	I 0					4.60
24.750	0.00	2.25	1.435	IO					4.56
24.833	0.00	2.10	1.420	IO					4.52
24.917	0.00	1.96	1.406	IO					4.49
25.000	0.00	1.83	1.393	IO					4.46
25.083	0.00	1.71	1.381	IO					4.43
25.167	0.00	1.59	1.369	IO					4.40
25.250	0.00	1.49	1.359	IO					4.37
25.333	0.00	1.39	1.349	IO					4.35
25.417	0.00	1.30	1.339	IO					4.32
25.500	0.00	1.21	1.331	IO					4.30
25.583	0.00	1.13	1.323	0					4.28
25.667	0.00	1.05	1.315	0					4.26
25.750	0.00	0.98	1.308	0					4.25
25.833	0.00	0.92	1.302	0					4.23
25.917	0.00	0.86	1.296	0					4.21
26.000	0.00	0.80	1.290	0					4.20
26.083	0.00	0.75	1.285	0					4.19
26.167	0.00	0.70	1.280	0					4.17
26.250	0.00	0.65	1.275	0					4.16
26.333	0.00	0.61	1.271	0					4.15
26.417	0.00	0.57	1.267	0					4.14
26.500	0.00	0.53	1.263	0					4.13
26.583	0.00	0.49	1.259	0					4.12
26.667	0.00	0.46	1.256	0					4.11
26.750	0.00	0.43	1.253	0					4.11
26.833	0.00	0.40	1.250	0					4.10
26.917	0.00	0.37	1.247	0					4.09
27.000	0.00	0.35	1.245	0					4.09
27.083	0.00	0.33	1.243	0					4.08
27.167	0.00	0.30	1.240	0					4.08

27.250	0.00	0.28	1.238	0					4.07
27.333	0.00	0.27	1.236	0					4.07
27.417	0.00	0.25	1.235	0					4.06
27.500	0.00	0.23	1.233	0					4.06
27.583	0.00	0.22	1.232	0					4.05
27.667	0.00	0.20	1.230	0					4.05
27.750	0.00	0.19	1.229	0					4.05
27.833	0.00	0.18	1.227	0					4.04
27.917	0.00	0.16	1.226	0					4.04
28.000	0.00	0.15	1.225	0					4.04
28.083	0.00	0.14	1.224	0					4.04
28.167	0.00	0.13	1.223	0					4.03
28.250	0.00	0.12	1.222	0					4.03
28.333	0.00	0.12	1.222	0					4.03
28.417	0.00	0.11	1.221	0					4.03
28.500	0.00	0.10	1.220	0					4.03
28.583	0.00	0.09	1.219	0					4.02
28.667	0.00	0.09	1.219	0					4.02
28.750	0.00	0.08	1.218	0					4.02
28.833	0.00	0.08	1.218	0					4.02
28.917	0.00	0.07	1.217	0					4.02
29.000	0.00	0.07	1.217	0					4.02
29.083	0.00	0.06	1.216	0					4.02
29.167	0.00	0.06	1.216	0					4.01
29.250	0.00	0.05	1.215	0					4.01
29.333	0.00	0.05	1.215	0					4.01
29.417	0.00	0.05	1.215	0					4.01
29.500	0.00	0.04	1.214	0					4.01
29.583	0.00	0.04	1.214	0					4.01
29.667	0.00	0.04	1.214	0					4.01
29.750	0.00	0.04	1.214	0					4.01
29.833	0.00	0.03	1.213	0					4.01
29.917	0.00	0.03	1.213	0					4.01
30.000	0.00	0.03	1.213	0					4.01
30.083	0.00	0.03	1.213	0					4.01
30.167	0.00	0.03	1.212	0					4.01
30.250	0.00	0.02	1.212	0					4.01
30.333	0.00	0.02	1.212	0					4.01
30.417	0.00	0.02	1.212	0					4.00
30.500	0.00	0.02	1.212	0					4.00
30.583	0.00	0.02	1.212	0					4.00
30.667	0.00	0.02	1.212	0					4.00
30.750	0.00	0.02	1.211	0					4.00
30.833	0.00	0.01	1.211	0					4.00
30.917	0.00	0.01	1.211	0					4.00
31.000	0.00	0.01	1.211	0					4.00
31.083	0.00	0.01	1.211	0					4.00
31.167	0.00	0.01	1.211	0					4.00
31.250	0.00	0.01	1.211	0					4.00
31.333	0.00	0.01	1.211	0					4.00

31.417	0.00	0.01	1.211	0					4.00
31.500	0.00	0.01	1.211	0					4.00
31.583	0.00	0.01	1.211	0					4.00
31.667	0.00	0.01	1.211	0					4.00
31.750	0.00	0.01	1.211	0					4.00
31.833	0.00	0.01	1.211	0					4.00
31.917	0.00	0.01	1.211	0					4.00
32.000	0.00	0.01	1.210	0					4.00
32.083	0.00	0.01	1.210	0					4.00
32.167	0.00	0.00	1.210	0					4.00
32.250	0.00	0.00	1.210	0					4.00
32.333	0.00	0.00	1.210	0					4.00
32.417	0.00	0.00	1.210	0					4.00
32.500	0.00	0.00	1.210	0					4.00
32.583	0.00	0.00	1.210	0					4.00
32.667	0.00	0.00	1.210	0					4.00
32.750	0.00	0.00	1.210	0					4.00
32.833	0.00	0.00	1.210	0					4.00
32.917	0.00	0.00	1.210	0					4.00
33.000	0.00	0.00	1.210	0					4.00
33.083	0.00	0.00	1.210	0					4.00
33.167	0.00	0.00	1.210	0					4.00
33.250	0.00	0.00	1.210	0					4.00
33.333	0.00	0.00	1.210	0					4.00
33.417	0.00	0.00	1.210	0					4.00
33.500	0.00	0.00	1.210	0					4.00
33.583	0.00	0.00	1.210	0					4.00
33.667	0.00	0.00	1.210	0					4.00
33.750	0.00	0.00	1.210	0					4.00
33.833	0.00	0.00	1.210	0					4.00
33.917	0.00	0.00	1.210	0					4.00
34.000	0.00	0.00	1.210	0					4.00
34.083	0.00	0.00	1.210	0					4.00
34.167	0.00	0.00	1.210	0					4.00

Remaining water in basin = 1.21 (Ac.Ft)

```

*****HYDROGRAPH DATA*****
      Number of intervals = 410
      Time interval = 5.0 (Min.)
      Maximum/Peak flow rate = 4.000 (CFS)
      Total volume = 4.254 (Ac.Ft)
      Status of hydrographs being held in storage
      Stream 1 Stream 2 Stream 3 Stream 4 Stream 5
      Peak (CFS) 0.000 0.000 0.000 0.000 0.000
      Vol (Ac.Ft) 0.000 0.000 0.000 0.000 0.000
*****

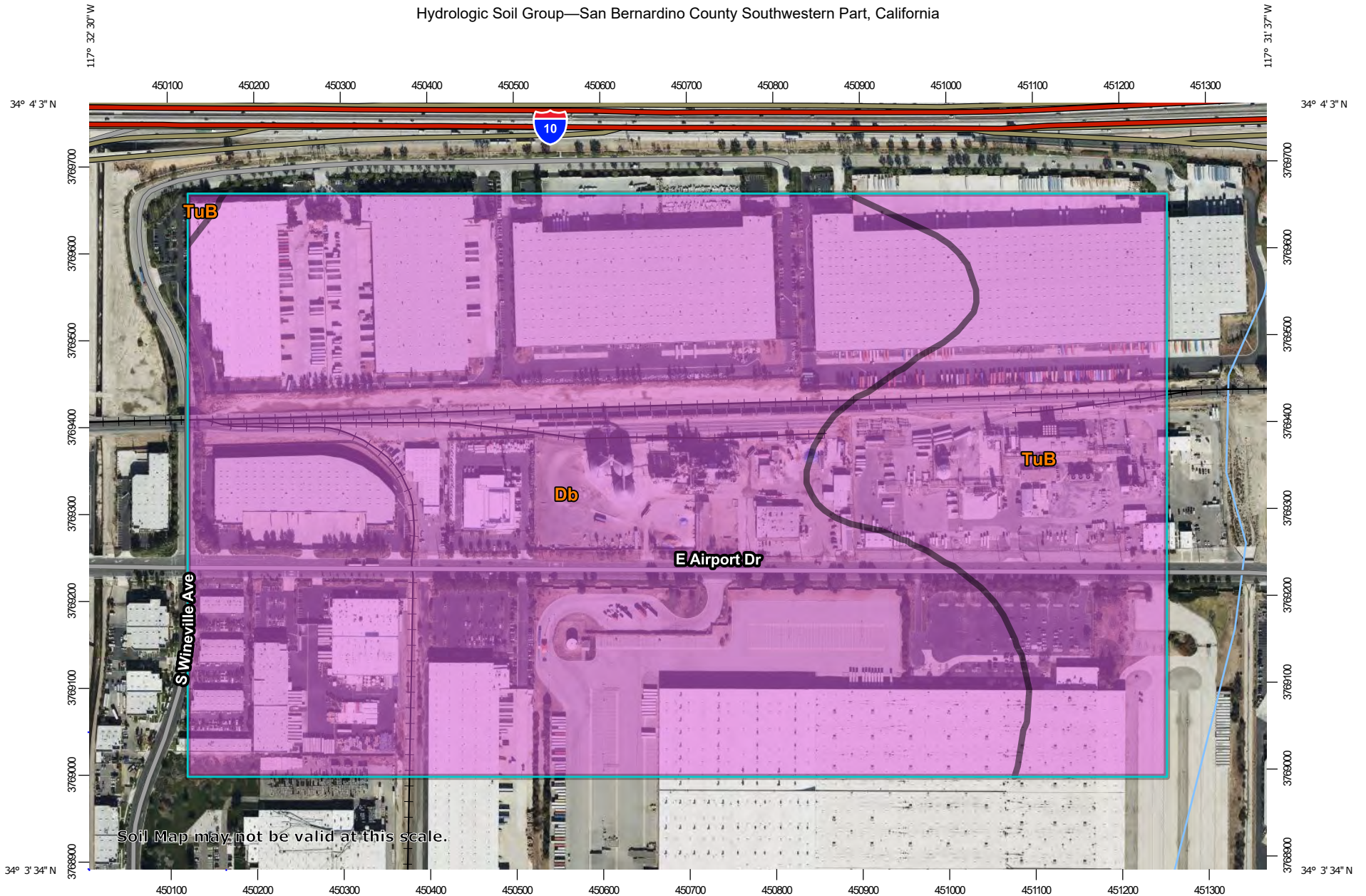
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# APPENDIX E

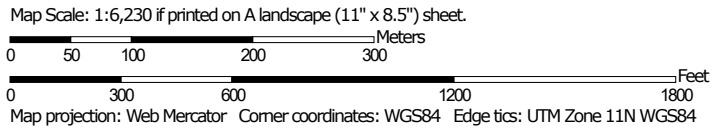
## SUPPORTING DOCUMENTS

## SOILS MAP

































Hydrologic Soil Group—San Bernardino County Southwestern Part, California



Soil Map may not be valid at this scale.



### MAP LEGEND

- Area of Interest (AOI)**
  -  Area of Interest (AOI)
- Soils**
  - Soil Rating Polygons**
    -  A
    -  A/D
    -  B
    -  B/D
    -  C
    -  C/D
    -  D
    -  Not rated or not available
  - Soil Rating Lines**
    -  A
    -  A/D
    -  B
    -  B/D
    -  C
    -  C/D
    -  D
    -  Not rated or not available
  - Soil Rating Points**
    -  A
    -  A/D
    -  B
    -  B/D
- Water Features**
  -  Streams and Canals
- Transportation**
  -  Rails
  -  Interstate Highways
  -  US Routes
  -  Major Roads
  -  Local Roads
- Background**
  -  Aerial Photography
- Other Symbols**
  -  C
  -  C/D
  -  D
  -  Not rated or not available

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

**Warning:** Soil Map may not be valid at this scale.  
 Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Bernardino County Southwestern Part, California  
 Survey Area Data: Version 13, Sep 13, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 5, 2020—Feb 6, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



## Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Db	Delhi fine sand	A	143.7	76.2%
TuB	Tujunga loamy sand, 0 to 5 percent slopes	A	44.9	23.8%
<b>Totals for Area of Interest</b>			<b>188.6</b>	<b>100.0%</b>

### Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

### Rating Options

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff: None Specified*

*Tie-break Rule: Higher*

# NOAA ATLAS 14 DATA



**NOAA Atlas 14, Volume 6, Version 2**  
**Location name: Ontario, California, USA\***  
**Latitude: 34.0635°, Longitude: -117.5335°**  
**Elevation: 983.19 ft\*\***  
 \* source: ESRI Maps  
 \*\* source: USGS



**POINT PRECIPITATION FREQUENCY ESTIMATES**

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

[PF\\_tabular](#) | [PF\\_graphical](#) | [Maps\\_&\\_aerials](#)

**PF tabular**

<b>PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)<sup>1</sup></b>										
<b>Duration</b>	<b>Average recurrence interval (years)</b>									
	<b>1</b>	<b>2</b>	<b>5</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>	<b>200</b>	<b>500</b>	<b>1000</b>
<b>5-min</b>	<b>0.104</b> (0.087-0.126)	<b>0.137</b> (0.114-0.166)	<b>0.181</b> (0.150-0.220)	<b>0.216</b> (0.178-0.265)	<b>0.265</b> (0.210-0.336)	<b>0.302</b> (0.235-0.392)	<b>0.341</b> (0.258-0.454)	<b>0.381</b> (0.281-0.522)	<b>0.436</b> (0.307-0.623)	<b>0.479</b> (0.326-0.710)
<b>10-min</b>	<b>0.149</b> (0.124-0.180)	<b>0.196</b> (0.164-0.238)	<b>0.259</b> (0.215-0.315)	<b>0.310</b> (0.255-0.380)	<b>0.379</b> (0.302-0.482)	<b>0.433</b> (0.337-0.562)	<b>0.488</b> (0.370-0.650)	<b>0.546</b> (0.402-0.748)	<b>0.624</b> (0.441-0.894)	<b>0.686</b> (0.467-1.02)
<b>15-min</b>	<b>0.180</b> (0.150-0.218)	<b>0.237</b> (0.198-0.288)	<b>0.313</b> (0.260-0.381)	<b>0.375</b> (0.308-0.460)	<b>0.459</b> (0.365-0.583)	<b>0.524</b> (0.408-0.680)	<b>0.591</b> (0.448-0.787)	<b>0.660</b> (0.486-0.905)	<b>0.755</b> (0.533-1.08)	<b>0.830</b> (0.565-1.23)
<b>30-min</b>	<b>0.270</b> (0.225-0.327)	<b>0.356</b> (0.297-0.432)	<b>0.470</b> (0.390-0.571)	<b>0.562</b> (0.463-0.690)	<b>0.689</b> (0.548-0.875)	<b>0.786</b> (0.612-1.02)	<b>0.886</b> (0.672-1.18)	<b>0.991</b> (0.730-1.36)	<b>1.13</b> (0.800-1.62)	<b>1.25</b> (0.848-1.85)
<b>60-min</b>	<b>0.399</b> (0.332-0.483)	<b>0.526</b> (0.438-0.638)	<b>0.693</b> (0.576-0.843)	<b>0.830</b> (0.683-1.02)	<b>1.02</b> (0.808-1.29)	<b>1.16</b> (0.903-1.51)	<b>1.31</b> (0.993-1.74)	<b>1.46</b> (1.08-2.00)	<b>1.67</b> (1.18-2.39)	<b>1.84</b> (1.25-2.73)
<b>2-hr</b>	<b>0.598</b> (0.498-0.724)	<b>0.777</b> (0.647-0.943)	<b>1.01</b> (0.838-1.23)	<b>1.20</b> (0.986-1.47)	<b>1.45</b> (1.15-1.84)	<b>1.65</b> (1.28-2.14)	<b>1.84</b> (1.40-2.45)	<b>2.05</b> (1.51-2.80)	<b>2.32</b> (1.64-3.32)	<b>2.54</b> (1.73-3.76)
<b>3-hr</b>	<b>0.757</b> (0.631-0.917)	<b>0.979</b> (0.815-1.19)	<b>1.26</b> (1.05-1.54)	<b>1.49</b> (1.23-1.83)	<b>1.80</b> (1.43-2.29)	<b>2.04</b> (1.58-2.64)	<b>2.27</b> (1.72-3.02)	<b>2.51</b> (1.85-3.45)	<b>2.84</b> (2.00-4.06)	<b>3.09</b> (2.11-4.58)
<b>6-hr</b>	<b>1.08</b> (0.898-1.31)	<b>1.39</b> (1.16-1.69)	<b>1.79</b> (1.49-2.18)	<b>2.11</b> (1.73-2.58)	<b>2.52</b> (2.01-3.21)	<b>2.84</b> (2.21-3.68)	<b>3.15</b> (2.39-4.20)	<b>3.47</b> (2.55-4.75)	<b>3.89</b> (2.74-5.56)	<b>4.20</b> (2.86-6.24)
<b>12-hr</b>	<b>1.42</b> (1.18-1.72)	<b>1.85</b> (1.54-2.24)	<b>2.39</b> (1.98-2.90)	<b>2.81</b> (2.31-3.45)	<b>3.36</b> (2.67-4.26)	<b>3.76</b> (2.93-4.88)	<b>4.15</b> (3.15-5.53)	<b>4.55</b> (3.35-6.23)	<b>5.06</b> (3.57-7.24)	<b>5.43</b> (3.70-8.06)
<b>24-hr</b>	<b>1.89</b> (1.67-2.18)	<b>2.51</b> (2.22-2.89)	<b>3.27</b> (2.89-3.79)	<b>3.87</b> (3.39-4.51)	<b>4.64</b> (3.93-5.59)	<b>5.20</b> (4.31-6.39)	<b>5.74</b> (4.65-7.24)	<b>6.28</b> (4.95-8.13)	<b>6.97</b> (5.27-9.40)	<b>7.48</b> (5.47-10.4)
<b>2-day</b>	<b>2.31</b> (2.04-2.66)	<b>3.13</b> (2.77-3.61)	<b>4.17</b> (3.68-4.83)	<b>4.99</b> (4.37-5.82)	<b>6.07</b> (5.14-7.32)	<b>6.87</b> (5.70-8.45)	<b>7.66</b> (6.21-9.66)	<b>8.46</b> (6.66-11.0)	<b>9.50</b> (7.18-12.8)	<b>10.3</b> (7.52-14.3)
<b>3-day</b>	<b>2.52</b> (2.23-2.91)	<b>3.47</b> (3.07-4.01)	<b>4.70</b> (4.14-5.44)	<b>5.68</b> (4.97-6.63)	<b>6.99</b> (5.92-8.43)	<b>7.98</b> (6.62-9.82)	<b>8.98</b> (7.27-11.3)	<b>9.99</b> (7.87-12.9)	<b>11.3</b> (8.58-15.3)	<b>12.4</b> (9.05-17.3)
<b>4-day</b>	<b>2.76</b> (2.44-3.18)	<b>3.84</b> (3.39-4.43)	<b>5.23</b> (4.62-6.06)	<b>6.36</b> (5.57-7.42)	<b>7.89</b> (6.68-9.51)	<b>9.05</b> (7.51-11.1)	<b>10.2</b> (8.29-12.9)	<b>11.4</b> (9.01-14.8)	<b>13.1</b> (9.88-17.6)	<b>14.3</b> (10.5-20.0)
<b>7-day</b>	<b>3.24</b> (2.87-3.74)	<b>4.54</b> (4.02-5.24)	<b>6.26</b> (5.52-7.24)	<b>7.66</b> (6.70-8.93)	<b>9.57</b> (8.10-11.5)	<b>11.0</b> (9.16-13.6)	<b>12.6</b> (10.2-15.8)	<b>14.1</b> (11.1-18.3)	<b>16.2</b> (12.3-21.9)	<b>17.9</b> (13.1-25.0)
<b>10-day</b>	<b>3.50</b> (3.10-4.03)	<b>4.93</b> (4.36-5.69)	<b>6.83</b> (6.03-7.91)	<b>8.40</b> (7.35-9.80)	<b>10.6</b> (8.93-12.7)	<b>12.2</b> (10.1-15.0)	<b>13.9</b> (11.3-17.6)	<b>15.7</b> (12.4-20.4)	<b>18.2</b> (13.8-24.5)	<b>20.1</b> (14.7-28.1)
<b>20-day</b>	<b>4.07</b> (3.60-4.69)	<b>5.82</b> (5.15-6.72)	<b>8.18</b> (7.22-9.47)	<b>10.2</b> (8.89-11.9)	<b>12.9</b> (10.9-15.6)	<b>15.1</b> (12.5-18.6)	<b>17.4</b> (14.1-21.9)	<b>19.8</b> (15.6-25.6)	<b>23.2</b> (17.5-31.2)	<b>25.8</b> (18.9-36.1)
<b>30-day</b>	<b>4.80</b> (4.25-5.54)	<b>6.90</b> (6.10-7.96)	<b>9.75</b> (8.60-11.3)	<b>12.2</b> (10.6-14.2)	<b>15.6</b> (13.2-18.8)	<b>18.3</b> (15.2-22.5)	<b>21.2</b> (17.1-26.7)	<b>24.2</b> (19.1-31.4)	<b>28.5</b> (21.6-38.5)	<b>32.0</b> (23.4-44.6)
<b>45-day</b>	<b>5.71</b> (5.05-6.58)	<b>8.17</b> (7.22-9.43)	<b>11.6</b> (10.2-13.4)	<b>14.5</b> (12.6-16.9)	<b>18.6</b> (15.7-22.4)	<b>21.9</b> (18.2-27.0)	<b>25.5</b> (20.6-32.1)	<b>29.3</b> (23.1-37.9)	<b>34.7</b> (26.3-46.8)	<b>39.1</b> (28.6-54.6)
<b>60-day</b>	<b>6.64</b> (5.88-7.65)	<b>9.42</b> (8.33-10.9)	<b>13.3</b> (11.7-15.4)	<b>16.6</b> (14.5-19.4)	<b>21.4</b> (18.1-25.8)	<b>25.3</b> (21.0-31.1)	<b>29.5</b> (23.9-37.1)	<b>33.9</b> (26.7-44.0)	<b>40.4</b> (30.5-54.5)	<b>45.7</b> (33.4-63.7)

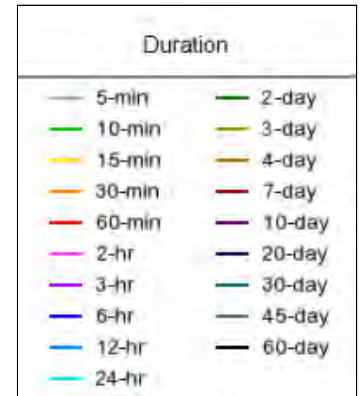
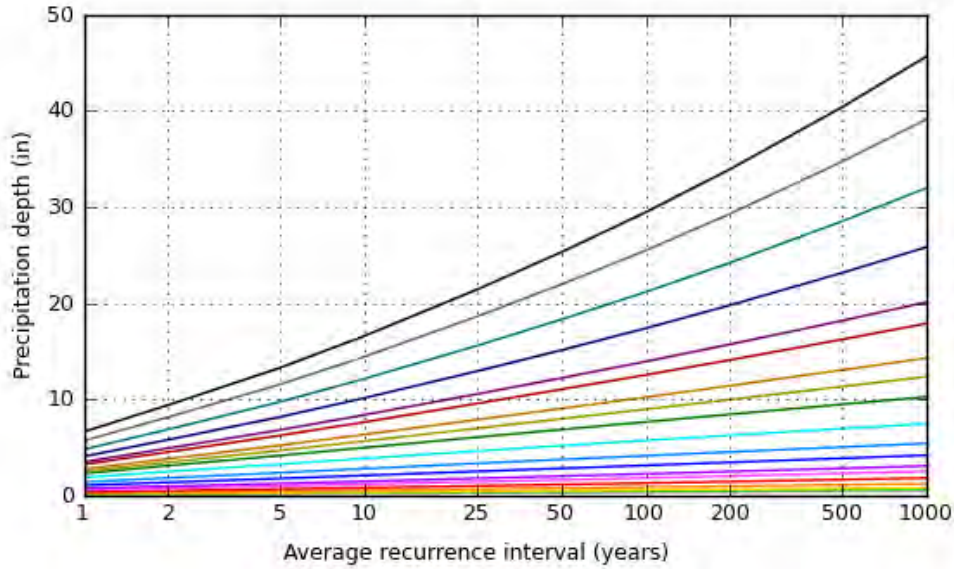
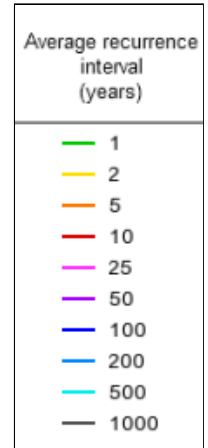
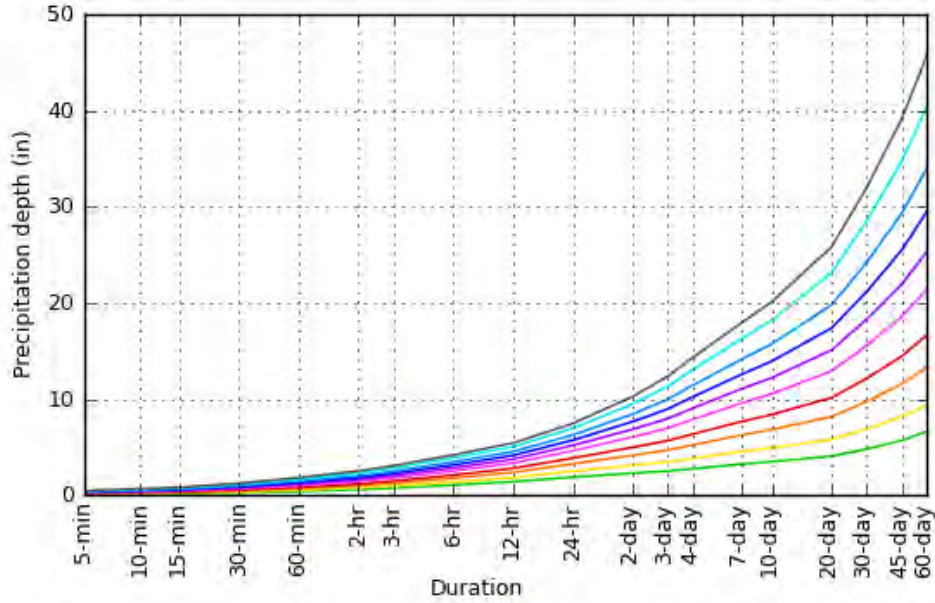
<sup>1</sup> Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).  
 Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.  
 Please refer to NOAA Atlas 14 document for more information.

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**PF graphical**

### PDS-based depth-duration-frequency (DDF) curves

Latitude: 34.0635°, Longitude: -117.5335°



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### Maps & aerials

Small scale terrain

# APPENDIX F

## INFILTRATION REPORT

March 9, 2022

Prologis  
17777 Center Court Drive North, Suite 100  
Cerritos, California 90703



Attention: Mr. John Carter  
Director, Project Management

Project No.: 22G128-2

Subject: Results of Infiltration Testing  
Proposed Warehouse  
5355 East Airport Drive  
Ontario, California

Reference: Geotechnical Investigation, Proposed Warehouse, 5355 East Airport Drive, Ontario, California, prepared by Southern California Geotechnical, Inc. (SCG) for Prologis, SCG Project No. 22G128-1, dated March 9, 2022.

Dear Mr. Carter:

In accordance with your request, we have conducted infiltration testing at the subject site. We are pleased to present this report summarizing the results of the infiltration testing and our design recommendations.

### Scope of Services

The scope of services performed for this project was in general accordance with our Proposal No. 22P129, dated January 21, 2022. The scope of services included site reconnaissance, subsurface exploration, field testing, and engineering analysis to determine the infiltration rates of the on-site soils. The infiltration testing was performed in general accordance with the guidelines published in the Riverside County – Low Impact Development BMP Design Handbook – Section 2.3 of Appendix A, prepared for the Riverside County Department of Environmental Health (RCDEH), dated December, 2013. The San Bernardino County standards defer to the guidelines published by the RCDEH.

### Site and Project Description

The subject site is located on the north side of East Airport Drive, 1,310± feet east of the intersection of South Wineville Avenue and East Airport Drive in Ontario, California. The site is also referenced by the street address 5355 East Airport Drive. The site is bounded to the north by Union Pacific railroad tracks, to the east and west by an industrial development, and to the south by East Airport Drive. The general location of the site is illustrated on the Site Location Map, enclosed as Plate 1 of this report.

The site consists of an irregular-shaped property, 14.58± acres in size. The site is developed to manufacture and store animal feed grains. The development includes several buildings and shed structures ranging in size from 2,200± ft<sup>2</sup> to 20,175± ft<sup>2</sup>, and several silos and above-ground

storage tanks (ASTs) primarily located in the north-central region of the site. The existing structures are generally of concrete tilt-up and/or metal-framed construction, and are presumed to be supported on conventional shallow foundations with concrete slab-on-grade floors. The existing structures are generally surrounded by asphaltic concrete (AC) pavements, with isolated areas of Portland cement concrete (PCC), aggregate base pavements, and exposed soils in the south-central portion of the site. The existing pavements are in poor condition, with moderate to severe cracking throughout. Two medium-size trees are present in the south-central region of the site.

Detailed topographic information was not available at the time of this report. Based on elevations obtained from Google Earth and visual observations made at the time of the subsurface investigation, the site slopes gently to the south-southeast at a gradient of less than 1 percent.

### Proposed Development

A preliminary site plan, identified as Scheme 01 and prepared by RGA, for the proposed development was provided to our office by the client. Based on this plan, the subject site will be developed with a 259,189± ft<sup>2</sup> warehouse, located in the north-central region of the site. Dock-high doors will be constructed along a portion of the south building wall. The proposed building is expected to be surrounded by AC pavements in the parking and drive areas, PCC pavements in the loading dock area, and concrete flatwork and landscaped planters throughout the site.

We understand that the proposed development will include on-site stormwater infiltration. Based on our experience with similar projects in the area, the infiltration systems are expected to be below-grade chambers. The bottoms of the infiltration systems are expected to be 10 to 12± feet below the existing site grades.

### Concurrent Study

SCG concurrently conducted a geotechnical investigation at the subject site, referenced above. As a part of this study, five (5) borings (identified as Boring Nos. B-1 through B-5) were advanced to depths of 20 to 30± feet below the existing site grades.

AC pavements were encountered at the ground surface of Boring Nos. B-1 through B-4. The pavement sections generally consist of 0 to 2½± inches of AC, underlain by 1 to 3½± inches of aggregate base. Artificial fill soils were encountered beneath the existing pavements at Boring Nos. B-1 through B-4 and at the ground surface at Boring No. B-5, extending to depths of 2½ to 6½± feet below the existing site grades. The fill soils generally consist of loose to medium dense sands and silty sands, with occasional dense silty sands. Native alluvium was encountered beneath the artificial fill soils at all of the boring locations, extending to at least the maximum depth explored of 30± feet. The near-surface alluvium generally consists of loose to medium dense sands and sandy silts, extending to depths of 6½ to 12± feet. At greater depths, the alluvium generally consists of medium dense to dense sands, silty sands and sandy silts. Boring No. B-3 encountered a stratum of dense silty sands at a depth of 14½ to 17± feet. Boring No. B-5 encountered a stratum of loose well-graded sands at a depth of 12 to 17± feet.



## Groundwater

Free water was not encountered during the drilling of any of the borings. Based on the lack of any water within the borings, and the moisture contents of the recovered soil samples, the static groundwater table is considered to have existed at a depth in excess of 30± feet at the time of the subsurface exploration.

As part of our research, we reviewed available groundwater data in order to determine groundwater levels for the site. Water level data was obtained from the California Department of Water Resources Water Data Library website, <https://wdl.water.ca.gov/waterdatalibrary/>. The nearest monitoring well on record (identified as State Well Number: 01S06W29H001S) is located 3,400± feet southeast of the project site. Water level readings within this monitoring well indicate a high groundwater level of 277± feet below the ground surface in April 2019.

## Subsurface Exploration

### Scope of Exploration

The subsurface exploration conducted for the infiltration testing consisted of six (6) infiltration test borings, advanced to depths of 10 to 12± feet below the existing site grades. The infiltration borings were advanced using a truck-mounted drilling rig, equipped with 8-inch-diameter hollow-stem augers and were logged during drilling by a member of our staff. The approximate locations of the infiltration test borings (identified as I-1 through I-6) are indicated on the Infiltration Test Location Plan, enclosed as Plate 2 of this report.

Upon the completion of the infiltration borings, the bottom of each test boring was covered with 2± inches of clean ¾-inch gravel. A sufficient length of 3-inch-diameter perforated PVC casing was then placed into each test hole so that the PVC casing extended from the bottom of the test hole to the ground surface. Clean ¾-inch gravel was then installed in the annulus surrounding the PVC casing.

### Geotechnical Conditions

AC pavements were encountered at the ground surface of Infiltration Test Nos. I-1 through I-5. The pavement sections generally consist of 0 to 6± inches of AC, underlain by 0 to 9± inches of aggregate base. An 8±-inch-thick PCC section was encountered at the ground surface at Infiltration Test Nos. I-6. Steel reinforcement was not encountered at this location. Artificial fill soils were encountered beneath the existing pavements at all of the infiltration boring location, extending to depths of 3 to 4± feet below the existing site grades. The fill soils generally consist of medium dense to dense silty sands, with occasional loose sands. The fill soils possess a disturbed mottled appearance resulting in their classification as artificial fill. Native alluvial soils were encountered beneath the fill soils at all of the infiltration boring locations, extending to at least the maximum depth explored of 12± feet. The alluvium generally consists of loose sands, silty sands and silty sands to sandy silts, with occasional medium dense silty sands. The Boring Logs, which illustrate the conditions encountered at the boring locations, are included with this report.

## Infiltration Testing

As previously mentioned, the infiltration testing was performed in general accordance with the guidelines published in Riverside County – Low Impact Development BMP Design Handbook – Section 2.3 of Appendix A, which apply to San Bernardino County.

### Pre-soaking

In accordance with the county infiltration standards for sandy soils, all infiltration test borings were pre-soaked 2 hours prior to the infiltration testing or until all of the water had percolated through the test holes. The pre-soaking process consisted of filling test borings by inverting a full 5-gallon bottle of clear water supported over each hole so that the water flow into the hole holds **constant at a level at least 5 times the hole's radius above the gravel at the bottom of each hole**. Pre-soaking was completed after all of the water had percolated through the test holes.

### Infiltration Testing

Following the pre-soaking process of the infiltration test borings, SCG performed the infiltration testing. **Each test hole was filled with water to a depth of at least 5 times the hole's radius above the gravel at the bottom of the test holes.** In accordance with the Riverside County guidelines, **since "sandy soils" (where 6 inches of water infiltrated into the surrounding soils in less than 25 minutes for two consecutive readings)** were encountered at the bottom of the infiltration test borings, readings were taken at 10-minute intervals for a total of 1 hour. After each reading, water was added to the borings so that the depth of the water was at least 5 times the radius of the hole. The water level readings are presented on the spreadsheets enclosed with this report. The infiltration rates for each of the timed intervals are also tabulated on the spreadsheets.

The infiltration rates from the tests are tabulated in inches per hour. In accordance with the typically accepted practice, it is recommended that the most conservative reading from the latter part of the infiltration tests be used as the design infiltration rate. The rates are summarized below:

<u>Infiltration Test No.</u>	<u>Depth (feet)</u>	<u>Soil Description</u>	<u>Infiltration Rate (inches/hour)</u>
I-1	10	Silty fine Sand, little medium Sand	3.9
I-2	12	Silty fine to medium Sand	3.0
I-3	12	Silty fine to medium Sand, trace coarse Sand	4.6
I-4	12	Silty fine Sand to fine Sandy Silt, trace medium Sand	3.1
I-5	10	Silty fine Sand, little medium Sand, trace fine Gravel	3.5
I-6	10	Silty fine Sand to fine Sandy Silt, trace medium Sand, trace fine Gravel	3.0

## Laboratory Testing

### Moisture Content

The moisture contents for the recovered soil samples within the borings were determined in accordance with ASTM D-2216 and are expressed as a percentage of the dry weight. These test results are presented on the Boring Logs.

### Grain Size Analysis

The grain size distribution of selected soils collected from the base of each infiltration test boring have been determined using a range of wire mesh screens. These tests were performed in general accordance with ASTM D-422 and/or ASTM D-1140. The weight of the portion of the sample retained on each screen is recorded and the percentage finer or coarser of the total weight is calculated. The results of these tests are presented on Plates C-1 through C-6 of this report.

### Design Recommendations

Six (6) infiltration tests were performed at the subject site. As noted above, the infiltration rates at these locations vary from 3.0 to 4.6 inches per hour. The major factor affecting the difference in infiltration rates at the infiltration test locations is the presence of silt in the soils at the tested depths. Based on the infiltration test results, we recommend an infiltration rate of 3.0 inches per hour be used in the design of the infiltration systems, if the bottom of the infiltration systems extend between 10 to 12± feet below the existing site grades.

The design of the storm water infiltration systems should be performed by the project civil engineer, in accordance with the City of Ontario and/or County of San Bernardino guidelines. It is recommended that the system be constructed so as to facilitate removal of silt and clay, or other deleterious materials from any water that may enter the systems. The presence of such materials would decrease the effective infiltration rates. It is recommended that the project civil engineer apply an appropriate factor of safety. The infiltration rates recommended above is based on the assumption that only clean water will be introduced to the subsurface profile. Any fines, debris, or organic materials could significantly impact the infiltration rate. It should be noted that the recommended infiltration rates are based on infiltration testing at six (6) discrete locations and that the overall infiltration rates of the proposed infiltration systems could vary considerably.

### Infiltration Rate Considerations

The infiltration rates presented herein was determined in accordance with the San Bernardino County guidelines and are considered valid only for the time and place of the actual test. Varying subsurface conditions will exist in other areas of the site, which could alter the recommended infiltration rates presented above. The infiltration rates will decline over time between maintenance cycles as silt or clay particles accumulate on the BMP surface. The infiltration rate is highly dependent upon a number of factors, including density, silt and clay content, grainsize distribution throughout the range of particle sizes, and particle shape. Small changes in these factors can cause large changes in the infiltration rates.

Infiltration rates are based on unsaturated flow. As water is introduced into soils by infiltration, the soils become saturated and the wetting front advances from the unsaturated zone to the saturated zone. Once the soils become saturated, infiltration rates become zero, and water can only move through soils by hydraulic conductivity at a rate determined by pressure head and soil permeability. Changes in soil moisture content will affect the infiltration rate. Infiltration rates should be expected to decrease until the soils become saturated. Soil permeability values will then govern groundwater movement. Permeability values may be on the order of 10 to 20 times less than infiltration rates. The system designer should incorporate adequate factors of safety and allow for overflow design into appropriate traditional storm drain systems, which would transport storm water off-site.

### Construction Considerations

The infiltration rates presented in this report are specific to the tested locations and tested depths. Infiltration rates can be significantly reduced if the soils are exposed to excessive disturbance or compaction during construction. Compaction of the soils at the bottom of the infiltration system can significantly reduce the infiltration ability of the basins. Therefore, the subgrade soils within proposed infiltration system areas should not be over-excavated, undercut or compacted in any significant manner. It is recommended that a note to this effect be added to the project plans and/or specifications.

We recommend that a representative from the geotechnical engineer be on-site during the construction of the proposed infiltration systems to identify the soil classification at the base of each system. It should be confirmed that the soils at the base of the proposed infiltration systems correspond with those presented in this report to ensure that the performance of the systems will be consistent with the rates reported herein.

We recommend that scrapers and other rubber-tired heavy equipment not be operated on the basin bottom, or at levels lower than 2 feet above the bottom of the system, particularly within basins. As such, the bottom 24 inches of the infiltration systems should be excavated with non-rubber-tired equipment, such as excavators.

### Basin Maintenance

The proposed project may include infiltration basins. Water flowing into these basins will carry some level of sediment. Wind-blown sediments and erosion of the basin side walls will also contribute to sediment deposition at the bottom of the basin. This layer has the potential to significantly reduce the infiltration rate of the basin subgrade soils. Therefore, a formal basin maintenance program should be established to ensure that these silt and clay deposits are removed from the basin on a regular basis. Appropriate vegetation on the basin sidewalls and bottom may reduce erosion and sediment deposition.

Basin maintenance should also include measures to prevent animal burrows, and to repair any burrows or damage caused by such. Animal burrows in the basin sidewalls can significantly increase the risk of erosion and piping failures.

## Location of Infiltration Systems

The use of on-site storm water infiltration systems carries a risk of creating adverse geotechnical conditions. Increasing the moisture content of the soil can cause the soil to lose internal shear strength and increase its compressibility, resulting in a change in the designed engineering properties. Overlying structures and pavements in the infiltration area could potentially be damaged due to saturation of the subgrade soils. The proposed infiltration systems for this site should be located at least 25 feet away from any structures, including retaining walls. Even with this provision of locating the infiltration system at least 25 feet from the building(s), it is possible that infiltrating water into the subsurface soils could have an adverse effect on the proposed or existing structures. It should also be noted that utility trenches which happen to collect storm water can also serve as conduits to transmit storm water toward the structure, depending on the slope of the utility trench. Therefore, consideration should also be given to the proposed locations of underground utilities which may pass near the proposed infiltration system.

The infiltration system designer should also give special consideration to the effect that the proposed infiltration systems may have on nearby subterranean structures, open excavations, or descending slopes. In particular, infiltration systems should not be located near the crest of descending slopes, particularly where the slopes are comprised of granular soils. Such systems will require specialized design and analysis to evaluate the potential for slope instability, piping failures and other phenomena that typically apply to earthen dam design. This type of analysis is beyond the scope of this infiltration test report, but these factors should be considered by the infiltration system designer when locating the infiltration systems.

## General Comments

This report has been prepared as an instrument of service for use by the client in order to aid in the evaluation of this property and to assist the architects and engineers in the design and preparation of the project plans and specifications. This report may be provided to the contractor(s) and other design consultants to disclose information relative to the project. However, this report is not intended to be utilized as a specification in and of itself, without appropriate interpretation by the project architect, structural engineer, and/or civil engineer. The design of the proposed storm water infiltration system is the responsibility of the civil engineer. The role of the geotechnical engineer is limited to determination of infiltration rate only. By using the design infiltration rate contained herein, the civil engineer agrees to indemnify, defend, and hold harmless the geotechnical engineer for all aspects of the design and performance of the proposed storm water infiltration system. The reproduction and distribution of this report must be authorized by the client and Southern California Geotechnical, Inc. Furthermore, any reliance **on this report by an unauthorized third party is at such party's sole risk, and we accept no** responsibility for damage or loss which may occur.

The analysis of this site was based on a subsurface profile interpolated from limited discrete soil samples. While the materials encountered in the project area are considered to be representative of the total area, some variations should be expected between boring locations and testing depths. If the conditions encountered during construction vary significantly from those detailed herein, we should be contacted immediately to determine if the conditions alter the recommendations contained herein.

This report has been based on assumed or provided characteristics of the proposed development. It is recommended that the owner, client, architect, structural engineer, and civil engineer carefully review these assumptions to ensure that they are consistent with the characteristics of the proposed development. If discrepancies exist, they should be brought to our attention to verify that they do not affect the conclusions and recommendations contained herein. We also recommend that the project plans and specifications be submitted to our office for review to verify that our recommendations have been correctly interpreted. The analysis, conclusions, and recommendations contained within this report have been promulgated in accordance with generally accepted professional geotechnical engineering practice. No other warranty is implied or expressed.

### Closure

We sincerely appreciate the opportunity to be of service on this project. We look forward to providing additional consulting services during the course of the project. If we may be of further assistance in any manner, please contact our office.

Respectfully Submitted,

### **SOUTHERN CALIFORNIA GEOTECHNICAL, INC.**



Joseph Lozano Leon  
Staff Engineer

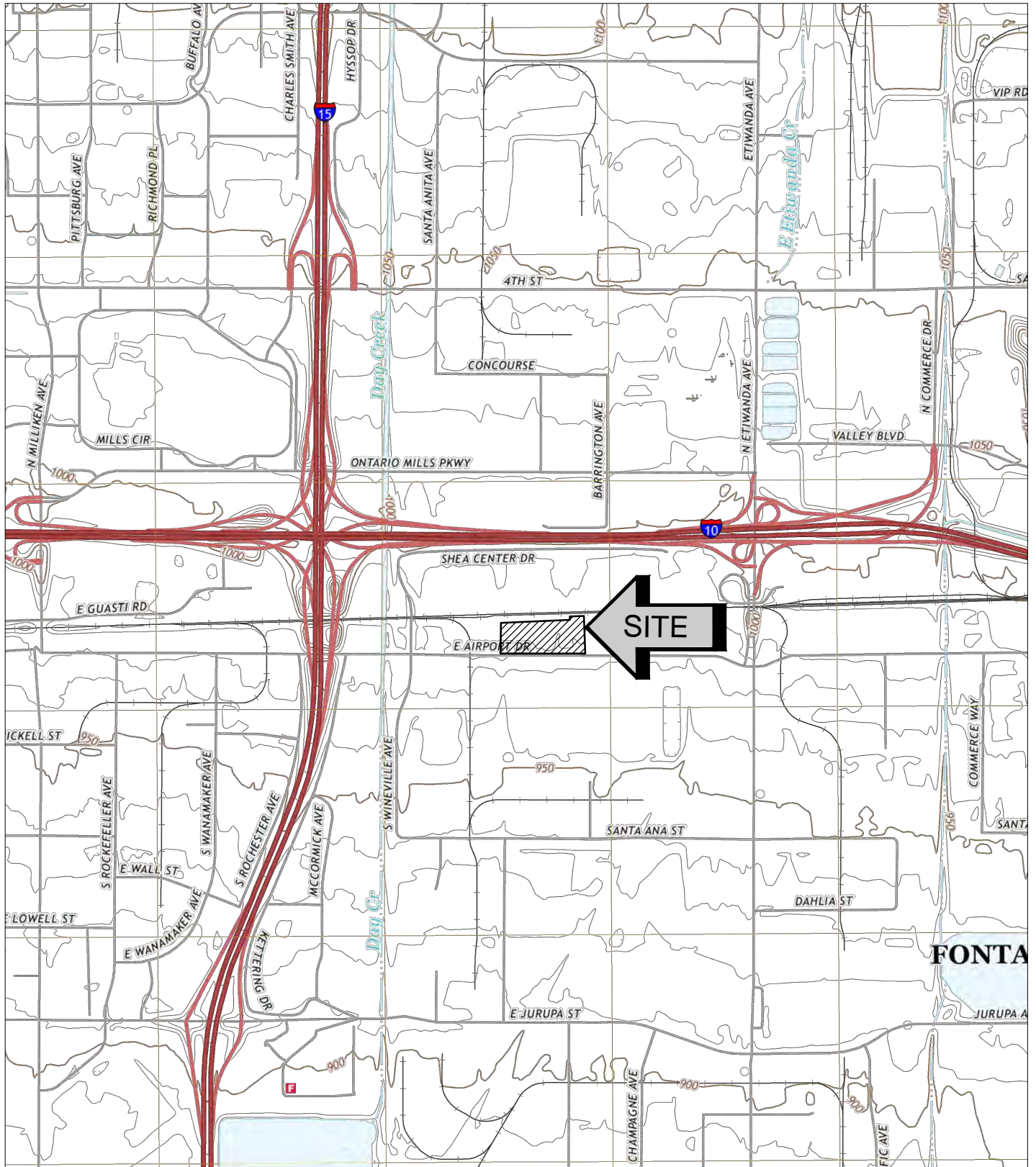


Robert G. Trazo, GE 2655  
Principal Engineer



Distribution: (1) Addressee

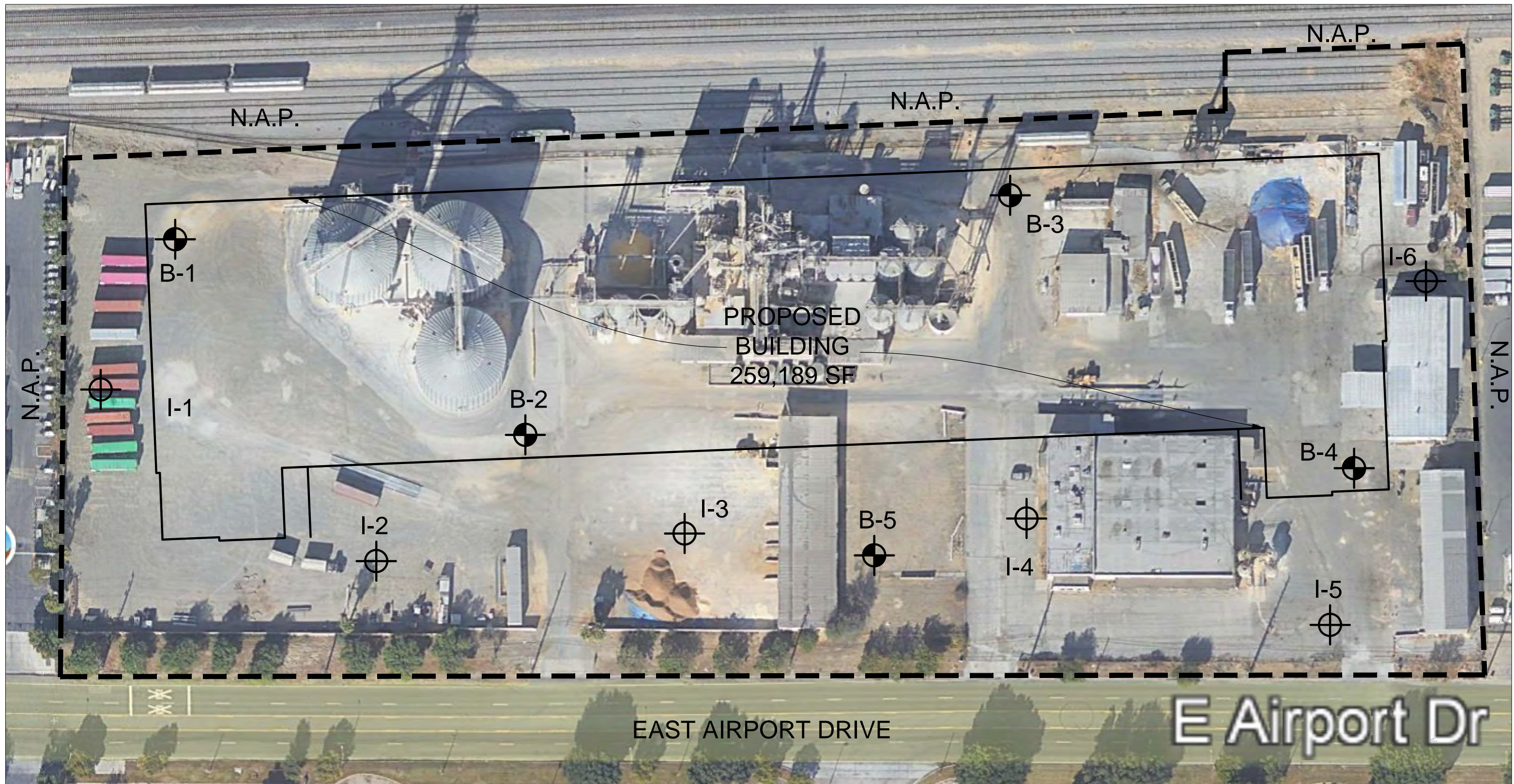
Enclosures: Plate 1 - Site Location Map  
Plate 2 - Infiltration Test Location Plan  
Boring Log Legend and Logs (8 pages)  
Infiltration Test Results Spreadsheets (6 pages)  
Grain Size Distribution Graphs (6 pages)



SOURCE: USGS TOPOGRAPHIC MAP OF THE GUASTI QUADRANGLE, SAN BERNARDINO COUNTY, CALIFORNIA, 2021.

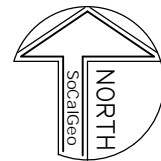


<b>SITE LOCATION MAP</b>	
PROPOSED WAREHOUSE	
ONTARIO, CALIFORNIA	
SCALE: 1" = 2000'	
DRAWN: JLL	
CHKD: RGT	
SCG PROJECT 22G128-2	
PLATE 1	<b>SOUTHERN CALIFORNIA GEOTECHNICAL</b>



**GEOTECHNICAL LEGEND**

- APPROXIMATE INFILTRATION TEST LOCATION
- APPROXIMATE BORING LOCATION FROM CONCURRENT STUDY (SCG PROJECT NO. 22G128-1)
- PROPERTY LINE

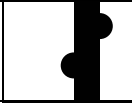
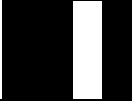
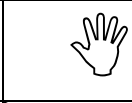

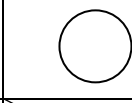
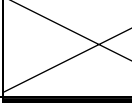

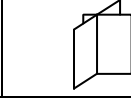


NOTE: PRELIMINARY SITE PLAN PREPARED BY RGA.  
AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH.

<b>INFILTRATION TEST LOCATION PLAN</b>	
PROPOSED WAREHOUSE	
ONTARIO, CALIFORNIA	
SCALE: 1" = 80'	<b>SOUTHERN CALIFORNIA GEOTECHNICAL</b>
DRAWN: JLL	
CHKD: RGT	
SCG PROJECT 22G128-2	
PLATE 2	



# BORING LOG LEGEND

SAMPLE TYPE	GRAPHICAL SYMBOL	SAMPLE DESCRIPTION
AUGER		SAMPLE COLLECTED FROM AUGER CUTTINGS, NO FIELD MEASUREMENT OF SOIL STRENGTH. (DISTURBED)
CORE		ROCK CORE SAMPLE: TYPICALLY TAKEN WITH A DIAMOND-TIPPED CORE BARREL. TYPICALLY USED ONLY IN HIGHLY CONSOLIDATED BEDROCK.
GRAB		SOIL SAMPLE TAKEN WITH NO SPECIALIZED EQUIPMENT, SUCH AS FROM A STOCKPILE OR THE GROUND SURFACE. (DISTURBED)
CS		CALIFORNIA SAMPLER: 2-1/2 INCH I.D. SPLIT BARREL SAMPLER, LINED WITH 1-INCH HIGH BRASS RINGS. DRIVEN WITH SPT HAMMER. (RELATIVELY UNDISTURBED)
NSR		NO RECOVERY: THE SAMPLING ATTEMPT DID NOT RESULT IN RECOVERY OF ANY SIGNIFICANT SOIL OR ROCK MATERIAL.
SPT		STANDARD PENETRATION TEST: SAMPLER IS A 1.4 INCH INSIDE DIAMETER SPLIT BARREL, DRIVEN 18 INCHES WITH THE SPT HAMMER. (DISTURBED)
SH		SHELBY TUBE: TAKEN WITH A THIN WALL SAMPLE TUBE, PUSHED INTO THE SOIL AND THEN EXTRACTED. (UNDISTURBED)
VANE		VANE SHEAR TEST: SOIL STRENGTH OBTAINED USING A 4 BLADED SHEAR DEVICE. TYPICALLY USED IN SOFT CLAYS-NO SAMPLE RECOVERED.

## COLUMN DESCRIPTIONS

<u>DEPTH:</u>	Distance in feet below the ground surface.
<u>SAMPLE:</u>	Sample Type as depicted above.
<u>BLOW COUNT:</u>	Number of blows required to advance the sampler 12 inches using a 140 lb hammer with a 30-inch drop. 50/3" indicates penetration refusal (>50 blows) at 3 inches. WH indicates that the weight of the hammer was sufficient to push the sampler 6 inches or more.
<u>POCKET PEN.:</u>	Approximate shear strength of a cohesive soil sample as measured by pocket penetrometer.
<u>GRAPHIC LOG:</u>	Graphic Soil Symbol as depicted on the following page.
<u>DRY DENSITY:</u>	Dry density of an undisturbed or relatively undisturbed sample in lbs/ft <sup>3</sup> .
<u>MOISTURE CONTENT:</u>	Moisture content of a soil sample, expressed as a percentage of the dry weight.
<u>LIQUID LIMIT:</u>	The moisture content above which a soil behaves as a liquid.
<u>PLASTIC LIMIT:</u>	The moisture content above which a soil behaves as a plastic.
<u>PASSING #200 SIEVE:</u>	The percentage of the sample finer than the #200 standard sieve.
<u>UNCONFINED SHEAR:</u>	The shear strength of a cohesive soil sample, as measured in the unconfined state.

# SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS		
			GRAPH	LETTER			
<p><b>COARSE GRAINED SOILS</b></p> <p>MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE</p>	<p><b>GRAVEL AND GRAVELLY SOILS</b></p>	<p>CLEAN GRAVELS</p> <p>(LITTLE OR NO FINES)</p>		<b>GW</b>	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES		
		<p>GRAVELS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		<b>GP</b>	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES		
		<p>MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE</p>	<p>GRAVELS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		<b>GM</b>	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES	
		<p>MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE</p>	<p>GRAVELS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		<b>GC</b>	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES	
	<p><b>SAND AND SANDY SOILS</b></p>	<p>CLEAN SANDS</p> <p>(LITTLE OR NO FINES)</p>		<b>SW</b>	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES		
				<b>SP</b>	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES		
		<p>MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE</p>	<p>SANDS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		<b>SM</b>	SILTY SANDS, SAND - SILT MIXTURES	
					<b>SC</b>	CLAYEY SANDS, SAND - CLAY MIXTURES	
			<p><b>FINE GRAINED SOILS</b></p> <p>MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE</p>	<p><b>SILTS AND CLAYS</b></p> <p>LIQUID LIMIT LESS THAN 50</p>		<b>ML</b>	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
						<b>CL</b>	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
	<b>OL</b>	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY					
<p><b>SILTS AND CLAYS</b></p> <p>LIQUID LIMIT GREATER THAN 50</p>		<b>MH</b>		INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS			
		<b>CH</b>		INORGANIC CLAYS OF HIGH PLASTICITY			
		<b>OH</b>		ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS			
<p><b>HIGHLY ORGANIC SOILS</b></p>				<b>PT</b>	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS		

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS



JOB NO.: 22G128-2	DRILLING DATE: 2/10/22	WATER DEPTH: Dry
PROJECT: Proposed Warehouse	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: ---
LOCATION: Ontario, California	LOGGED BY: Joseph Lozano Leon	READING TAKEN: At Completion

FIELD RESULTS				GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)			DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	
SURFACE ELEVATION: --- MSL												
				8± inches Aggregate Base								
	X	26		FILL: Gray Brown Silty fine to coarse Sand, little fine Gravel, medium dense-moist		10						
5	X	7		ALLUVIUM: Light Brown to Brown Silty fine Sand, loose-damp		4						
	X	9		@ 8½ feet, little medium Sand		5		31				
10				Boring Terminated at 10'								

TBL 22G128-2.GPJ\_SOCALGEO.GDT 3/9/22



JOB NO.: 22G128-2	DRILLING DATE: 2/10/22	WATER DEPTH: Dry
PROJECT: Proposed Warehouse	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: ---
LOCATION: Ontario, California	LOGGED BY: Joseph Lozano Leon	READING TAKEN: At Completion

FIELD RESULTS				GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)			DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	
SURFACE ELEVATION: --- MSL												
				5 1/2 ± inches Aggregate Base								
	30			FILL: Brown Silty fine Sand, little medium Sand, trace coarse Sand, trace fine Gravel, dense-dry to damp		2						
	4			ALLUVIUM: Gray Brown Silty fine Sand, little medium Sand, trace coarse Sand, loose-damp		6						
	5											
	6			Brown Silty fine Sand, trace medium Sand, loose-damp to moist		7						
	10			Brown Silty fine to medium Sand, medium dense-moist		8			33			
	23											
Boring Terminated at 12'												

TBL 22G128-2.GPJ\_SOCALGEO.GDT 3/9/22



JOB NO.: 22G128-2	DRILLING DATE: 2/10/22	WATER DEPTH: Dry
PROJECT: Proposed Warehouse	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: ---
LOCATION: Ontario, California	LOGGED BY: Joseph Lozano Leon	READING TAKEN: At Completion

FIELD RESULTS				GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)			DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	
SURFACE ELEVATION: --- MSL												
					6± inches Asphaltic Concrete							
		8			<u>FILL</u> : Brown fine to medium Sand, little Silt, loose-damp to moist		7					
5		4			<u>ALLUVIUM</u> : Brown fine to medium Sand, little Silt, loose-damp		5					
		7					5					
10		6			Brown to Dark Brown Silty fine to medium Sand, trace coarse Sand, loose-damp to moist		7		20			
Boring Terminated at 12'												

TBL 22G128-2.GPJ\_SOCALGEO.GDT 3/9/22








JOB NO.: 22G128-2	DRILLING DATE: 2/10/22	WATER DEPTH: Dry
PROJECT: Proposed Warehouse	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: ---
LOCATION: Ontario, California	LOGGED BY: Joseph Lozano Leon	READING TAKEN: At Completion

FIELD RESULTS				GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)			DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	
SURFACE ELEVATION: --- MSL												
					3± inches Asphaltic Concrete, 9± inches of Aggregate Base							
	X	19			<u>FILL</u> : Gray Brown Silty fine to medium Sand, trace coarse Sand, medium dense-damp	5						
5	X	4			<u>ALLUVIUM</u> : Gray Brown Silty fine Sand, little medium Sand, loose, damp to moist	7						
	X	9				7						
10	X	6			Gray Brown Silty fine Sand to fine Sandy Silt, trace medium Sand, loose-very moist	13			52			
					Boring Terminated at 12'							

TBL 22G128-2.GPJ\_SOCALGEO.GDT 3/9/22



JOB NO.: 22G128-2	DRILLING DATE: 2/10/22	WATER DEPTH: Dry
PROJECT: Proposed Warehouse	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: ---
LOCATION: Ontario, California	LOGGED BY: Joseph Lozano Leon	READING TAKEN: At Completion

FIELD RESULTS				GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)			DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	
SURFACE ELEVATION: --- MSL												
		12			2½± inches Asphaltic Concrete, 3½± inches of Aggregate Base		8					
					FILL: Brown Silty fine Sand, trace to little medium Sand, trace coarse Sand, medium dense-moist							
5		4			ALLUVIUM: Brown Silty fine Sand, trace to little medium Sand, loose-damp		6					
					Gray Brown to Dark Gray Brown Silty fine Sand to fine Sandy Silt, loose-very moist		14					
10		9			Gray Brown Silty fine Sand, little medium Sand, trace fine Gravel, loose-moist		9			24		
Boring Terminated at 10'												

TBL 22G128-2.GPJ\_SOCALGEO.GDT 3/9/22



JOB NO.: 22G128-2	DRILLING DATE: 2/10/22	WATER DEPTH: Dry
PROJECT: Proposed Warehouse	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: ---
LOCATION: Ontario, California	LOGGED BY: Joseph Lozano Leon	READING TAKEN: At Completion

FIELD RESULTS				GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)			DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	
SURFACE ELEVATION: --- MSL												
				8± inches Portland Cement Concrete								
	X	43		FILL: Gray Brown Silty fine Sand, little medium Sand, trace coarse Sand, dense-moist		9						
5	X	8		ALLUVIUM: Gray Brown Silty fine Sand, trace medium Sand, loose-moist		9						
	X	6		Gray Brown Silty fine Sand to fine Sandy Silt, trace medium Sand, trace fine Gravel, loose-very moist		14			43			
10				Boring Terminated at 10'								

TBL 22G128-2.GPJ\_SOCALGEO.GDT 3/9/22



## INFILTRATION CALCULATIONS

Project Name	Proposed Warehouse
Project Location	Ontario, California
Project Number	22G128-2
Engineer	Caleb Brackett

Test Hole Radius	4 (in)
Test Depth	10.20 (ft)

Infiltration Test Hole	I-1
------------------------	-----

Soil Criteria Test							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (in)	Did 6 inches of water seep away in less than 25 minutes?	Sandy Soils or Non-Sandy Soils?
1	Initial	8:28 AM	25.00	8.10	24.00	YES	SANDY SOILS
	Final	8:53 AM		10.10			
2	Initial	8:55 AM	25.00	8.10	24.00	YES	SANDY SOILS
	Final	9:20 AM		10.10			

Test Data							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (ft)	Average Head Height (ft)	Infiltration Rate Q (in/hr)
1	Initial	9:21 AM	10.00	8.20	0.80	1.60	5.43
	Final	9:31 AM		9.00			
2	Initial	9:31 AM	10.00	8.20	0.70	1.65	4.62
	Final	9:41 AM		8.90			
3	Initial	9:41 AM	10.00	8.20	0.60	1.70	3.86
	Final	9:51 AM		8.80			
4	Initial	9:51 AM	10.00	8.30	0.60	1.60	4.08
	Final	10:01 AM		8.90			
5	Initial	10:01 AM	10.00	8.20	0.60	1.70	3.86
	Final	10:11 AM		8.80			
6	Initial	10:11 AM	10.00	8.20	0.60	1.70	3.86
	Final	10:21 AM		8.80			
7	Initial	10:21 AM	10.00	8.20	0.60	1.70	3.86
	Final	10:31 AM		8.80			

Per County Standards, Infiltration Rate calculated as follows:

Where:

$$Q = \frac{\Delta H(60r)}{\Delta t(r + 2H_{avg})}$$

Q = Infiltration Rate (in inches per hour)  
 ΔH = Change in Height (Water Level) over the time interval  
 r = Test Hole (Borehole) Radius  
 Δt = Time Interval  
 H<sub>avg</sub> = Average Head Height over the time interval

**INFILTRATION CALCULATIONS**

Project Name	Proposed Warehouse
Project Location	Ontario, California
Project Number	22G128-2
Engineer	Caleb Brackett

Test Hole Radius	4 (in)
Test Depth	12.00 (ft)

Infiltration Test Hole	I-2
------------------------	-----

Soil Criteria Test							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (in)	Did 6 inches of water seep away in less than 25 minutes?	Sandy Soils or Non-Sandy Soils?
1	Initial	7:07 AM	25.00	9.00	24.00	YES	SANDY SOILS
	Final	7:32 AM		11.00			
2	Initial	7:33 AM	25.00	9.00	22.80	YES	SANDY SOILS
	Final	7:58 AM		10.90			

Test Data							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (ft)	Average Head Height (ft)	Infiltration Rate Q (in/hr)
1	Initial	7:58 AM	10.00	9.00	0.80	2.60	3.47
	Final	8:08 AM		9.80			
2	Initial	8:09 AM	10.00	9.00	0.80	2.60	3.47
	Final	8:19 AM		9.80			
3	Initial	8:20 AM	10.00	9.00	0.70	2.65	2.98
	Final	8:30 AM		9.70			
4	Initial	8:30 AM	10.00	9.00	0.80	2.60	3.47
	Final	8:40 AM		9.80			
5	Initial	8:40 AM	10.00	9.00	0.70	2.65	2.98
	Final	8:50 AM		9.70			
6	Initial	8:50 AM	10.00	9.00	0.70	2.65	2.98
	Final	9:00 AM		9.70			

Per County Standards, Infiltration Rate calculated as follows:

Where:

$$Q = \frac{\Delta H(60r)}{\Delta t(r + 2H_{avg})}$$

- Q = Infiltration Rate (in inches per hour)
- ΔH = Change in Height (Water Level) over the time interval
- r = Test Hole (Borehole) Radius
- Δt = Time Interval
- H<sub>avg</sub> = Average Head Height over the time interval

**INFILTRATION CALCULATIONS**

Project Name	Proposed Warehouse
Project Location	Ontario, California
Project Number	22G128-2
Engineer	Sam Bergeland

Test Hole Radius	4 (in)
Test Depth	12.40 (ft)

Infiltration Test Hole	I-3
------------------------	-----

Soil Criteria Test							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (in)	Did 6 inches of water seep away in less than 25 minutes?	Sandy Soils or Non-Sandy Soils?
1	Initial	10:15 AM	25.00	10.40	24.00	YES	SANDY SOILS
	Final	10:40 AM		12.40			
2	Initial	10:42 AM	25.00	10.40	24.00	YES	SANDY SOILS
	Final	11:07 AM		12.40			

Test Data							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (ft)	Average Head Height (ft)	Infiltration Rate Q (in/hr)
1	Initial	11:08 AM	10.00	10.40	0.80	1.60	5.43
	Final	11:18 AM		11.20			
2	Initial	11:20 AM	10.00	10.40	0.90	1.55	6.29
	Final	11:30 AM		11.30			
3	Initial	11:31 AM	10.00	10.40	0.80	1.60	5.43
	Final	11:41 AM		11.20			
4	Initial	11:42 AM	10.00	10.40	0.80	1.60	5.43
	Final	11:52 AM		11.20			
5	Initial	11:55 AM	10.00	10.40	0.70	1.65	4.62
	Final	12:05 PM		11.10			
6	Initial	12:06 PM	10.00	10.40	0.70	1.65	4.62
	Final	12:16 PM		11.10			
7	Initial	12:18 PM	10.00	10.40	0.70	1.65	4.62
	Final	12:28 PM		11.10			
8	Initial	12:29 PM	10.00	10.40	0.70	1.65	4.62
	Final	12:39 PM		11.10			

Per County Standards, Infiltration Rate calculated as follows:

Where:

$$Q = \frac{\Delta H(60r)}{\Delta t(r + 2H_{avg})}$$

- Q = Infiltration Rate (in inches per hour)
- ΔH = Change in Height (Water Level) over the time interval
- r = Test Hole (Borehole) Radius
- Δt = Time Interval
- H<sub>avg</sub> = Average Head Height over the time interval

**INFILTRATION CALCULATIONS**

Project Name	Proposed Warehouse
Project Location	Ontario, California
Project Number	22G128-2
Engineer	Sam Bergeland

Test Hole Radius	4 (in)
Test Depth	11.70 (ft)

Infiltration Test Hole	I-4
------------------------	-----

Soil Criteria Test							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (in)	Did 6 inches of water seep away in less than 25 minutes?	Sandy Soils or Non-Sandy Soils?
1	Initial	7:56 AM	25.00	10.00	20.40	YES	SANDY SOILS
	Final	8:21 AM		11.70			
2	Initial	8:22 AM	25.00	10.00	20.40	YES	SANDY SOILS
	Final	8:47 AM		11.70			

Test Data							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (ft)	Average Head Height (ft)	Infiltration Rate Q (in/hr)
1	Initial	8:48 AM	10.00	10.30	0.50	1.15	4.56
	Final	8:58 AM		10.80			
2	Initial	8:59 AM	10.00	10.30	0.40	1.20	3.51
	Final	9:09 AM		10.70			
3	Initial	9:10 AM	10.00	10.30	0.30	1.25	2.54
	Final	9:20 AM		10.60			
4	Initial	9:20 AM	10.00	10.30	0.20	1.30	1.64
	Final	9:30 AM		10.50			
5	Initial	9:31 AM	10.00	10.10	0.50	1.35	3.96
	Final	9:41 AM		10.60			
6	Initial	9:42 AM	10.00	10.10	0.40	1.40	3.06
	Final	9:52 AM		10.50			
7	Initial	9:24 AM	10.00	10.10	0.40	1.40	3.06
	Final	9:34 AM		10.50			

Per County Standards, Infiltration Rate calculated as follows:

Where:

$$Q = \frac{\Delta H(60r)}{\Delta t(r + 2H_{avg})}$$

- Q = Infiltration Rate (in inches per hour)
- ΔH = Change in Height (Water Level) over the time interval
- r = Test Hole (Borehole) Radius
- Δt = Time Interval
- H<sub>avg</sub> = Average Head Height over the time interval

## INFILTRATION CALCULATIONS

Project Name	Proposed Warehouse
Project Location	Ontario, California
Project Number	22G128-2
Engineer	Sam Bergeland

Test Hole Radius	4 (in)
Test Depth	10.20 (ft)

Infiltration Test Hole	I-5
------------------------	-----

Soil Criteria Test							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (in)	Did 6 inches of water seep away in less than 25 minutes?	Sandy Soils or Non-Sandy Soils?
1	Initial	7:42 AM	25.00	8.10	20.40	YES	SANDY SOILS
	Final	8:07 AM		9.80			
2	Initial	8:08 AM	25.00	8.10	21.60	YES	SANDY SOILS
	Final	8:33 AM		9.90			

Test Data							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (ft)	Average Head Height (ft)	Infiltration Rate Q (in/hr)
1	Initial	8:35 AM	10.00	8.30	0.80	1.50	5.76
	Final	8:45 AM		9.10			
2	Initial	8:46 AM	10.00	8.80	0.60	1.10	5.68
	Final	8:56 AM		9.40			
3	Initial	8:57 AM	10.00	8.80	0.50	1.15	4.56
	Final	9:07 AM		9.30			
4	Initial	9:08 AM	10.00	8.80	0.50	1.15	4.56
	Final	9:18 AM		9.30			
5	Initial	9:19 AM	10.00	8.80	0.40	1.20	3.51
	Final	9:29 AM		9.20			
6	Initial	9:30 AM	10.00	8.80	0.40	1.20	3.51
	Final	9:40 AM		9.20			
7	Initial	9:42 AM	10.00	8.80	0.40	1.20	3.51
	Final	9:52 AM		9.20			
8	Initial	9:53 AM	10.00	8.80	0.40	1.20	3.51
	Final	10:03 AM		9.20			

Per County Standards, Infiltration Rate calculated as follows:

Where:

$$Q = \frac{\Delta H(60r)}{\Delta t(r + 2H_{avg})}$$

Q = Infiltration Rate (in inches per hour)  
 ΔH = Change in Height (Water Level) over the time interval  
 r = Test Hole (Borehole) Radius  
 Δt = Time Interval  
 H<sub>avg</sub> = Average Head Height over the time interval

**INFILTRATION CALCULATIONS**

Project Name	Proposed Warehouse
Project Location	Ontario, California
Project Number	22G128-2
Engineer	Sam Bergeland

Test Hole Radius	4 (in)
Test Depth	10.20 (ft)

Infiltration Test Hole	I-6
------------------------	-----

Soil Criteria Test							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (in)	Did 6 inches of water seep away in less than 25 minutes?	Sandy Soils or Non-Sandy Soils?
1	Initial	7:49 AM	25.00	8.10	19.20	YES	SANDY SOILS
	Final	8:14 AM		9.70			
2	Initial	8:15 AM	25.00	8.10	20.40	YES	SANDY SOILS
	Final	8:40 AM		9.80			

Test Data							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (ft)	Average Head Height (ft)	Infiltration Rate Q (in/hr)
1	Initial	10:17 AM	10.00	8.10	0.60	1.80	3.66
	Final	10:27 AM		8.70			
2	Initial	10:28 AM	10.00	8.10	0.70	1.75	4.38
	Final	10:38 AM		8.80			
3	Initial	10:39 AM	10.00	8.10	0.50	1.85	2.98
	Final	10:49 AM		8.60			
4	Initial	10:50 AM	10.00	8.10	0.60	1.80	3.66
	Final	11:00 AM		8.70			
5	Initial	11:05 AM	10.00	8.10	0.50	1.85	2.98
	Final	11:15 AM		8.60			
6	Initial	11:16 AM	10.00	8.10	0.50	1.85	2.98
	Final	11:26 AM		8.60			
7	Initial	11:27 AM	10.00	8.10	0.50	1.85	2.98
	Final	11:37 AM		8.60			

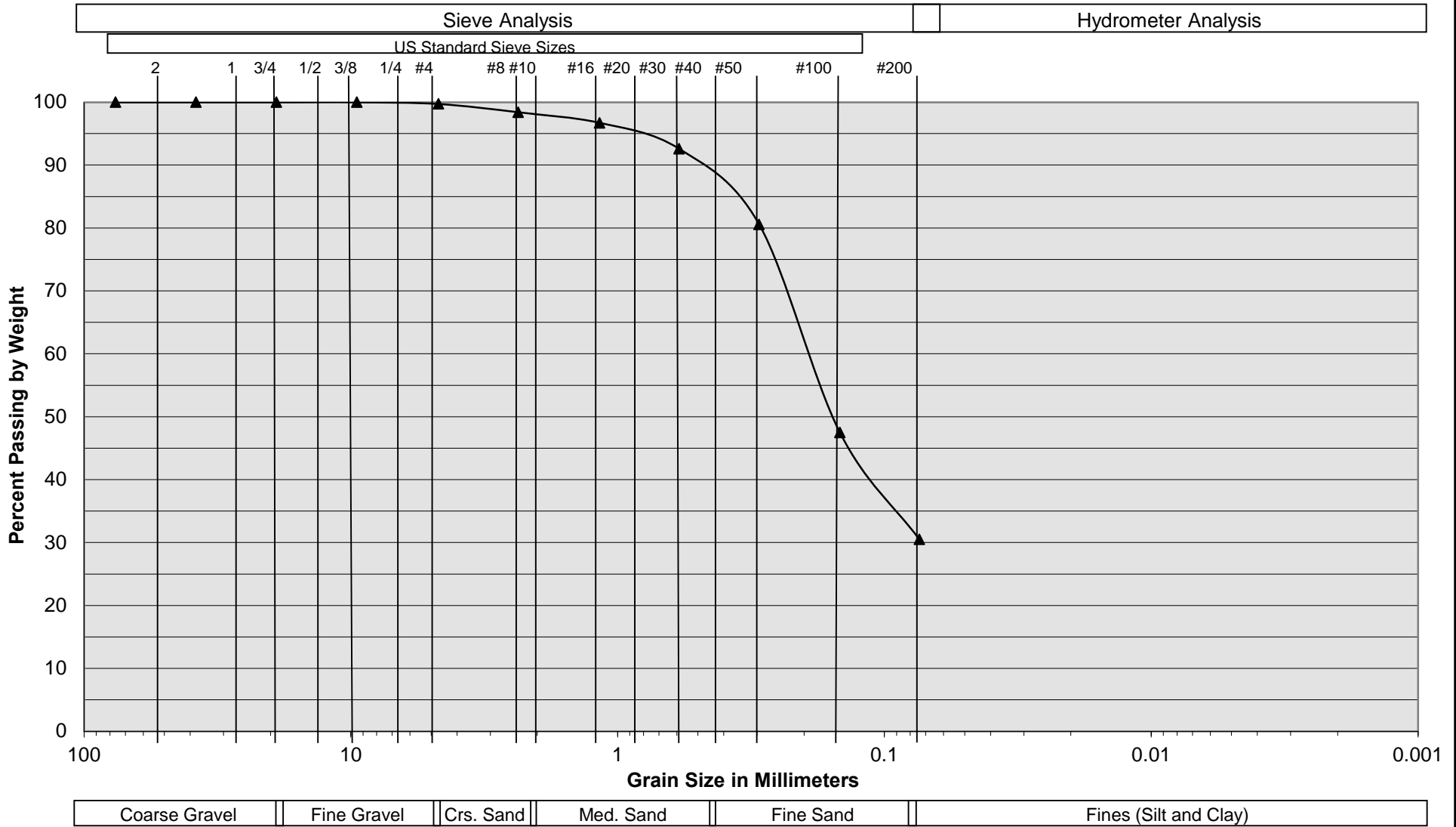
Per County Standards, Infiltration Rate calculated as follows:

Where:

$$Q = \frac{\Delta H(60r)}{\Delta t(r + 2H_{avg})}$$

- Q = Infiltration Rate (in inches per hour)
- ΔH = Change in Height (Water Level) over the time interval
- r = Test Hole (Borehole) Radius
- Δt = Time Interval
- H<sub>avg</sub> = Average Head Height over the time interval

# Grain Size Distribution



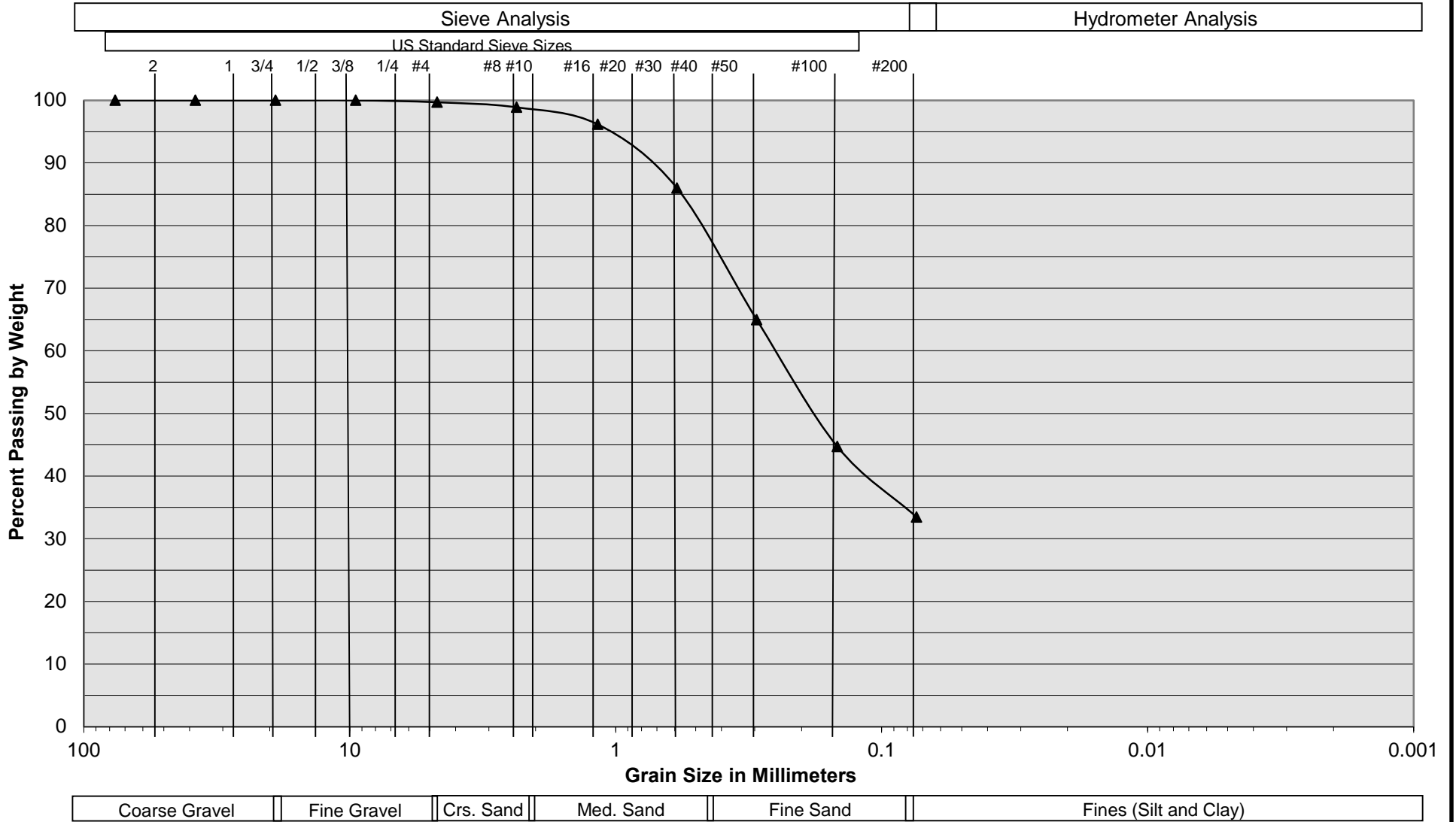
Sample Description	I-1 @ 8½'
Soil Classification	Light Brown to Brown Silty fine Sand, little medium Sand

Proposed Warehouse  
 Ontario, California  
 Project No. 22G128-2  
**PLATE C- 1**



**SOUTHERN CALIFORNIA GEOTECHNICAL**  
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# Grain Size Distribution



Sample Description	I-2 @ 10½'
Soil Classification	Brown Silty fine to medium Sand

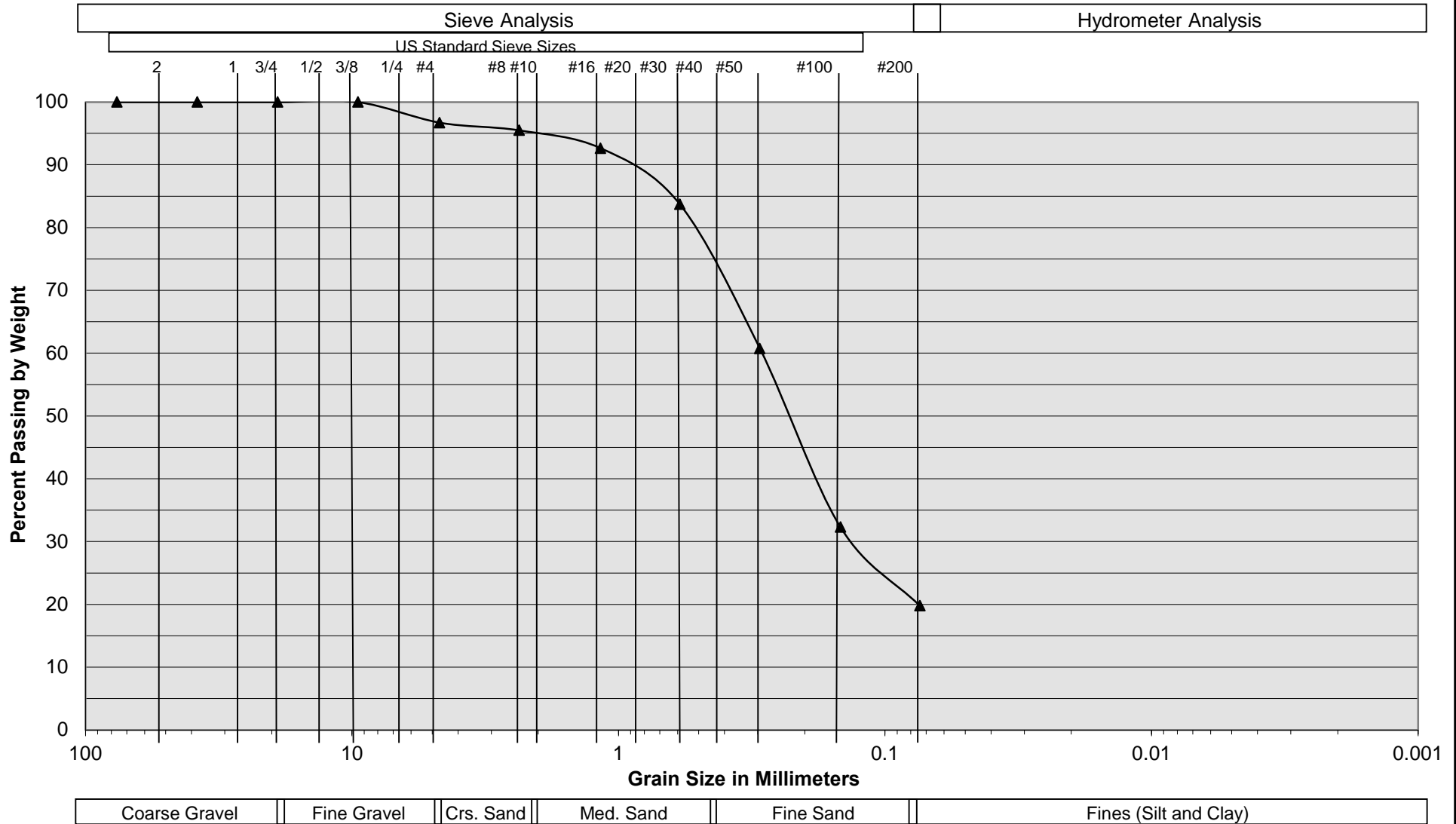
Proposed Warehouse  
 Ontario, California  
 Project No. 22G128-2  
**PLATE C- 2**



**SOUTHERN CALIFORNIA GEOTECHNICAL**  
A California Corporation



# Grain Size Distribution



Sample Description	I-3 @ 10½'
Soil Classification	Brown to Dark Brown Silty fine to medium Sand, trace coarse Sand

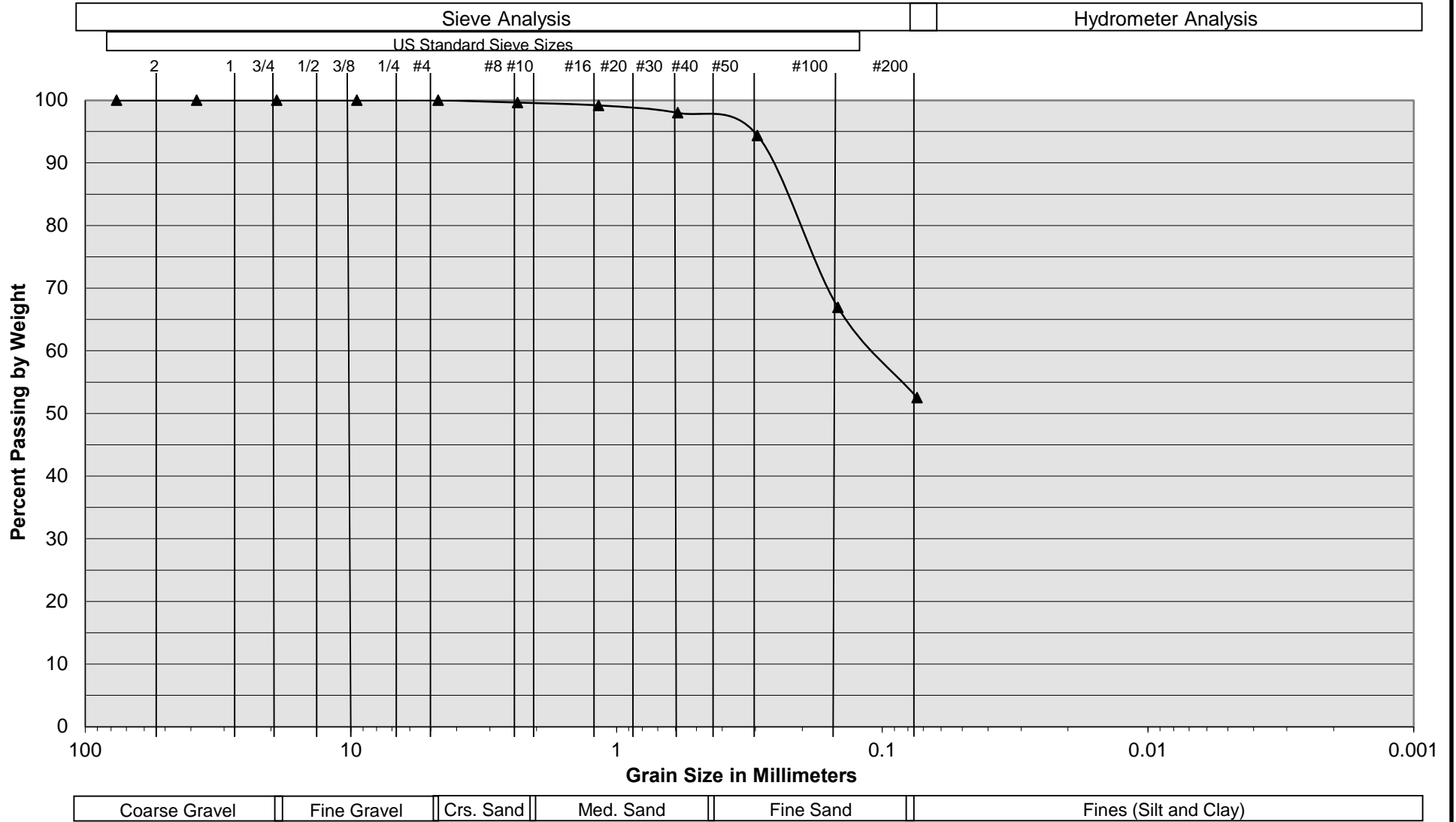
Proposed Warehouse  
 Ontario, California  
 Project No. 22G128-2  
**PLATE C- 3**





**SOUTHERN CALIFORNIA GEOTECHNICAL**  
A California Corporation

# Grain Size Distribution



Sample Description	I-4 @ 10½'
Soil Classification	Gray Brown Silty fine Sand to fine Sandy Silt, trace medium Sand

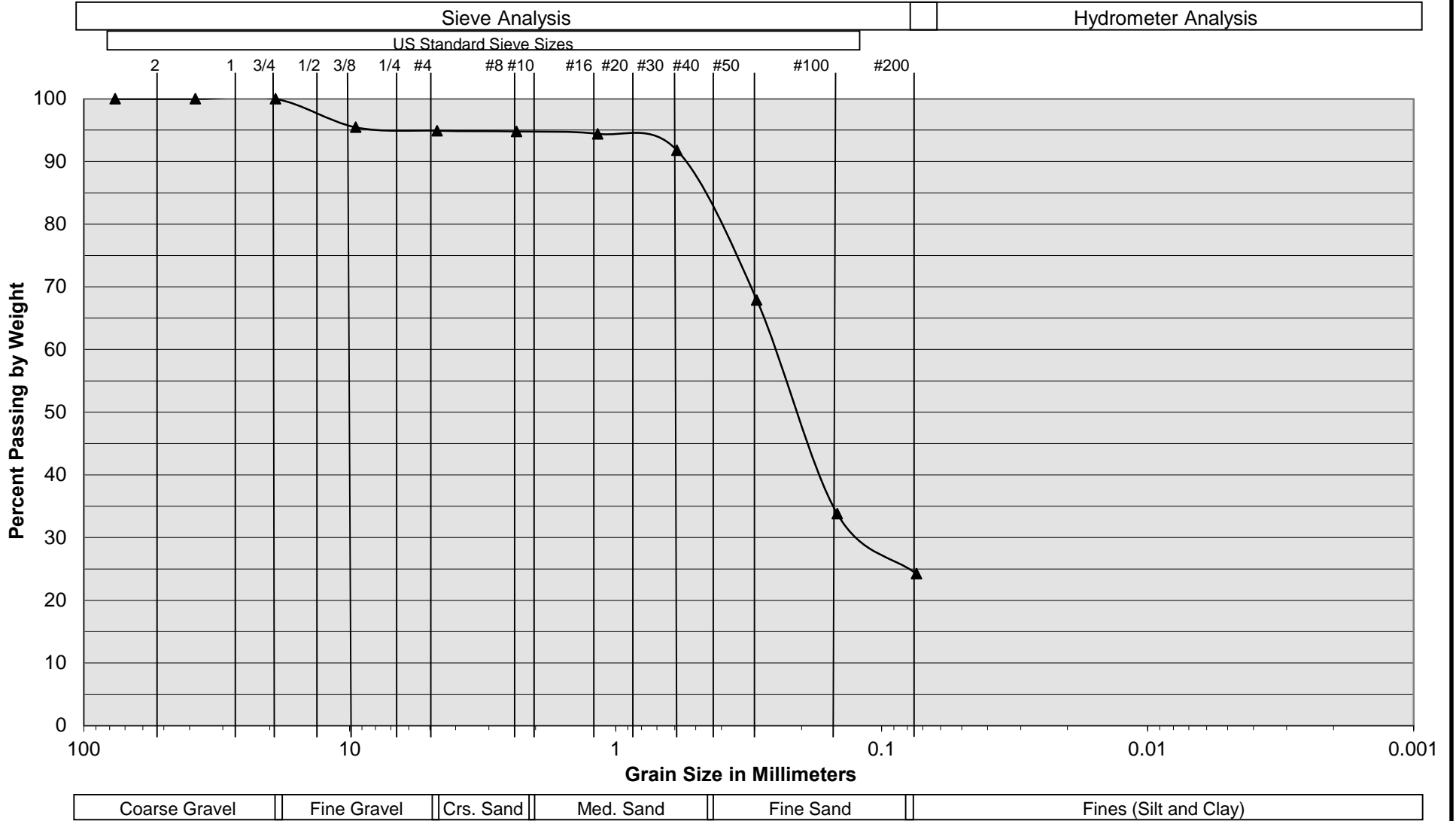
Proposed Warehouse  
 Ontario, California  
 Project No. 22G128-2  
**PLATE C- 4**





**SOUTHERN CALIFORNIA GEOTECHNICAL**  
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# Grain Size Distribution



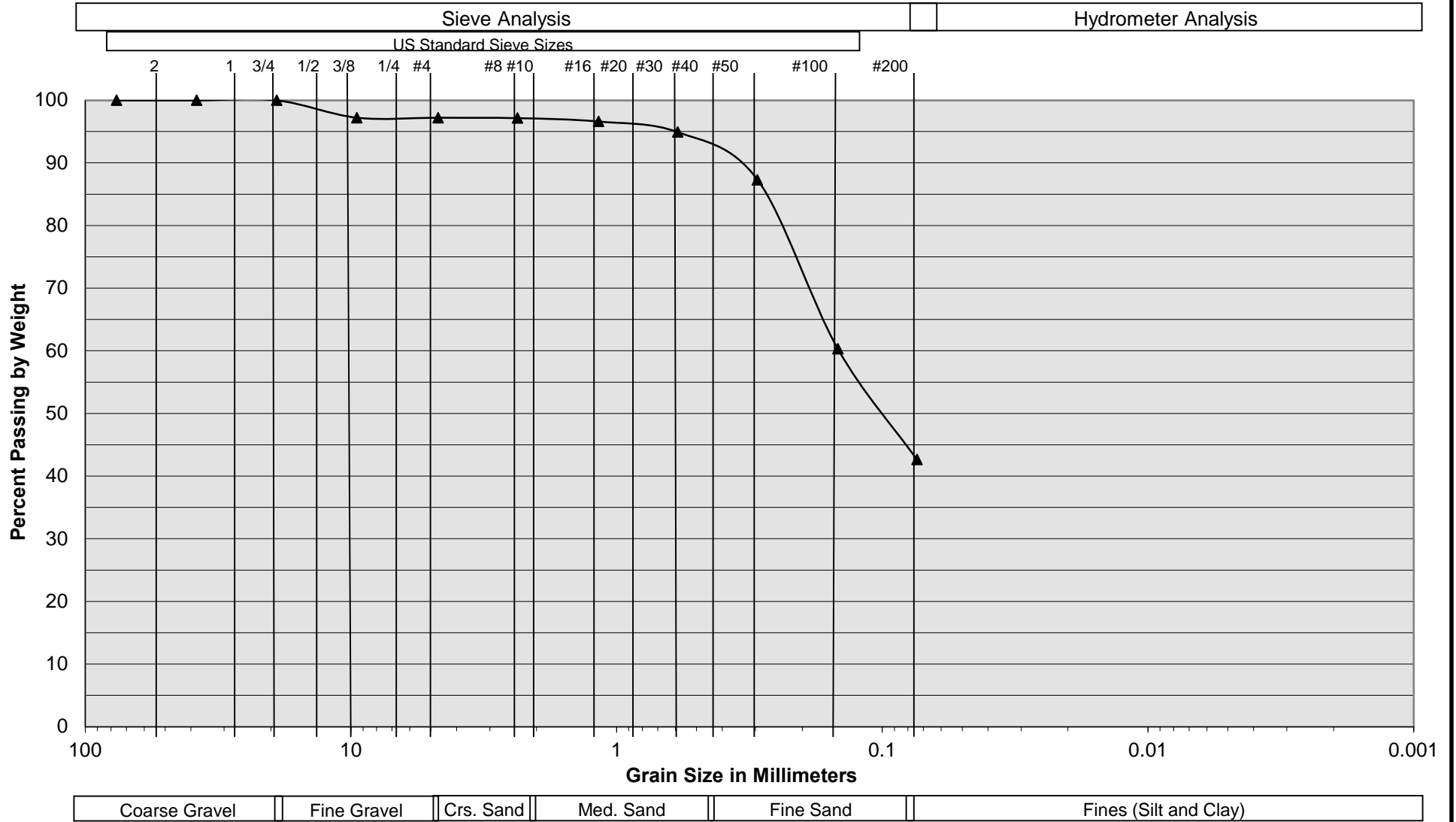
Sample Description	I-5 @ 9½'
Soil Classification	Gray Brown Silty fine Sand, little medium Sand, trace fine Gravel

Proposed Warehouse  
 Ontario, California  
 Project No. 22G128-2  
**PLATE C- 5**



**SOUTHERN CALIFORNIA GEOTECHNICAL**  
A California Corporation

# Grain Size Distribution



Sample Description	I-6 @ 8½'
Soil Classification	Gray Brown Silty fine Sand to fine Sandy Silt, trace medium Sand, trace fine Gravel

Proposed Warehouse  
 Ontario, California  
 Project No. 22G128-2  
**PLATE C- 6**



**SOUTHERN CALIFORNIA GEOTECHNICAL**  
A California Corporation



## Preliminary Water Quality Management Plan (PWQMP)

For compliance with Santa Ana Regional Water Quality Control Board

Order Number R8-2010-0036 (NPDES Permit No. CAS618036)

**for**

**Project Name:** 5355 Airport Drive

**Ontario Project #:** \_\_\_\_\_

**Project Description:** Proposed Industrial Building

**Applicant Name:** Prologis (John Carter)

**Applicant Address:** 3546 Concour St. #100, Ontario Ca 91764

**Project Address:** 5355 E. Airport Dr. Ontario, CA 91761

**Size of Development:** 12.85 Acres

**Submittal Date:** March 2022

# Preliminary Water Quality Management Plan (PWQMP)

## 1. Introduction

The Preliminary Water Quality Management Plan (PWQMP) is a planning tool to improve integration of required water quality elements, stormwater management, water conservation, rainwater harvesting and re-use, and flood management in land use planning and the City's development process. The Preliminary WQMP will assist project applicants and planners in properly designing and laying out project sites so that water quality may be incorporated in the most effective manner and at the lowest cost for the developer.

The San Bernardino County Municipal Separate Storm Sewer System Permit (MS4 Permit) requires project-specific Water Quality Management plans (WQMP) to be prepared for all priority new development and significant redevelopment projects listed in Section 2 of this document. The MS4 Permit stipulates that the City of Ontario require priority project applicants to submit a Preliminary project-specific WQMP, as early as possible, during the environmental review or planning phase of a development project and that the Preliminary WQMP be approved prior to the issuance of land use entitlement.

## 2. Priority Projects (requiring a Preliminary WQMP)

Land Use entitlement shall not be issued for any of the listed projects, below, until a Preliminary WQMP has been approved by the City's Engineering Department. For construction projects not going through entitlement, a Preliminary and Final project-specific WQMP shall be approved, prior to the issuance of construction permits:

Check the appropriate project category below, for this project:

<i>Check below</i>	<b>Project Categories</b>
	1. All significant re-development projects. Significant re-development is defined as the addition or replacement of 5,000 or more square feet of impervious surface on an already developed site subject to discretionary approval of the Permittee. Redevelopment does not include routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, original purpose of the facility, or emergency redevelopment activity required to protect public health and safety. Where redevelopment results in an increase of less than fifty percent of the impervious surfaces of a previously existing developed site, and the existing development was not subject to WQMP requirements, the numeric sizing criteria discussed below applies only to the addition or replacement, and not to the entire developed site. Where redevelopment results in an increase of fifty percent or more of the impervious surfaces of a previously existing developed site, the numeric sizing criteria applies to the entire development (new and existing).

Check  
below

### Project Categories

✓	2. New development projects that create 10,000 square feet or more of impervious surface (collectively over the entire project site) including commercial, industrial, residential housing subdivisions (i.e., detached single family home subdivisions, multi-family attached subdivisions or townhomes, condominiums, apartments, etc.), mixed-use, and public projects. This category includes development projects on public and private land, which fall under the planning and building authority of the permitting agency.
	3. Automotive repair shops (with SIC codes 5013, 5014, 5541, 7532- 7534, 7536-7539).
	4. Restaurants and Food Service Establishments where the land area of development is 5,000 square feet or more.
	5. Developments of 2,500 square feet of impervious surface or more adjacent to (within 200 feet) or discharging directly into environmentally sensitive areas (ESA's) such as areas designated in the Ocean Plan as areas of special biological significance or waterbodies listed on the CWA Section 303(d) list of impaired waters.
✓	6. Parking lots of 5,000 square feet or more exposed to storm water. Parking lot is defined as land area or facility for the temporary storage of motor vehicles.
	7. Retail Gasoline Outlets (RGOs) that are either 5,000 sq ft or more, or have a projected average daily traffic of 100 or more vehicles per day.
	8. *This project is not covered under any of the categories listed above.

\* If the development is not covered under any of the project categories listed in Section 2, the project is not required to design and install Site Design/LID BMPs or Treatment Control BMPs to treat the design storm event (Design Capture Volume) described in Section 4.

### 3. Preliminary WQMP Objectives

Through a combination of Site Design/LID BMPs (where feasible), Source Control, and/or Treatment Control BMPs, project-specific WQMPs shall address all identified pollutants and hydrologic conditions of concern from new development and significant re-development projects for the categories of projects (priority projects) listed in Section 2. Under each type of BMP, listed below, please indicate which BMPs are planned to be implemented and included in the Final WQMP for the project:

#### A. Site Design/LID (Low Impact Design) for Reducing Stormwater Runoff:

The MS4 Permit requires each priority development project to infiltrate, harvest and use, evapotranspire, or bio-treat the runoff from a 2-yr, 24-hour storm event (Design Capture Volume). If site conditions do not permit infiltration, harvest and use, evapotranspiration, and/or bio-treatment of the entire Design Capture Volume, at the project site, Site Design/LID techniques are required to be implemented to the Maximum Extent Practicable, at the project site, and the remainder of the DCV shall be infiltrated, harvested, bio-treated or treated by alternative measures.

Project applicants shall submit a Preliminary WQMP that documents the LID/Site Design BMPs, proposed for the project. Please indicate, in the table below, which Site Design/LID BMPs will be utilized on this project to accomplish this requirement:

Site Design/LID Practice	Planned	Not Planned
Provide at least the minimum effective area required for LID BMPs, to comply with the WQMP (see Table 3-1 below).	✓	
Grade parking lot areas/drive aisles/roof drains to sheet flow runoff into landscaped swales, via curb cuts or zero-face curbs or otherwise disconnect direct drainage from MS4.		✓
Design landscaped areas as swales and grade to accept runoff from building roofs, parking lots and project roadways.		✓
Install surface retention basins or infiltration trenches to receive impervious area runoff.		✓
Install pervious pavement in parking stalls, alleys, driveways, gutters, walkways, trails or patios.		✓
Install underground stormwater retention chambers where downstream landscaped areas are limited.	✓	
Install approved Stormwater Drywells in detention areas.		✓
Construct streets, sidewalks, and parking lot stalls to the minimum widths necessary.	✓	
Install on-site Biotreatment basins/trenches with underdrains, where soil type is poorly draining.		✓
Install "Engineered Soil" to increase uptake/soil storage capacity and/or evapotranspiration.		✓
Install Rainwater Harvesting/Use Equipment.		✓
Utilize approved off-site retention/infiltration, biotreatment or proprietary treatment, where it is infeasible to install, on-site.		✓

Table 3-1 Minimum Effective Area<sup>1</sup> Required for LID BMPs (surface + subsurface facilities) for Project WQMP to Demonstrate Infeasibility<sup>2</sup> (% of site)

Project Type	New Development	Re-Development
SF/MF Residential < 7 du/ac	10%	5%
SF/MF Residential < 7 - 18 du/ac	7%	3.5%
SF/MF Residential > 18 du/ac	5%	2.5%
Mixed Use, Commercial/Industrial w/FAR< 1.0	10%	5%



Mixed Use, Commercial/Industrial w/FAR 1.0-2.0	7%	3.5%
Mixed Use, Commercial/Industrial w/FAR > 2.0	5%	2.5%
Podium (parking under > 75% of project)	3%	1.5%
Zoning allowing development to property lines	2%	1%
Transit Oriented Development <sup>3</sup>	5%	2.5%
Parking	5%	2.5%

<sup>1</sup> “Effective area” is defined as land area which 1) is suitable for a retention/infiltration BMP (based on infeasibility criteria) and 2) is located down-gradient from building roof or paved areas, so that it may receive gravity flow runoff.

<sup>2</sup> Criteria only required if the project WQMP seeks to demonstrate that the full DCV cannot be feasibly managed on-site.

<sup>3</sup> Transit oriented development is defined as a project with development center within one half mile of a mass transit center.

Key: du/ac = dwelling units/acre, FAR = Floor Area Ratio = ratio of gross floor area of building to gross lot area, MF = Multi Family, SF = Single Family

**B. Source Control BMPs** – The following BMPs are designed to control stormwater pollutants and runoff water at the location where it is generated. Please indicate which of the listed BMPs are planned to be implemented for the project:

Source Control BMPs	Planned	Not Planned
Minimize non-stormwater site runoff through efficient irrigation system design and controllers.	✓	
Minimize trash and debris in storm runoff through a regular parking lot, storage yard and roadway sweeping program.	✓	
Provide proper covers/roofs and secondary containment for outside material storage & work areas.	✓	
Provide solid roofs over all trash enclosures.	✓	
Site Owner(s)/Property Manager/HOA or POA will be familiar with the project WQMP and stormwater BMPs.	✓	
Owner or HOA or POA to provide Education/Training of site occupants and employees on stormwater BMPs.	✓	
Install stormwater placards/stenciled messages with a “No Dumping” message on all on-site/off-site storm drain inlets.	✓	
Provide contained equipment/vehicle wash rack areas that discharge to sanitary sewer.		✓

**C. Treatment Control BMPs** – The following BMPs are designed to control stormwater pollutants where it is not feasible to install on-site Site Design/LID BMPs, with the requisite capacity to treat the Design Capture Volume for identified Pollutants of Concern or where pretreatment of stormwater runoff is required, ahead of infiltration BMPs. Please indicate which of the listed BMPs are planned to be implemented for the project:

Treatment Control BMP	Planned	Not Planned
Gravity Separator devices for pretreatment of sediment, trash/litter or Oil & Grease	✓	
Proprietary Biofiltration vaults/devices		✓
Media Cartridge Filtration Vaults		✓
Proprietary Filter Inserts for on-site storm drain inlets or retention basin/trench overflow drains	✓	
Regional Treatment facilities are installed or are planned for installation, off-site, and provide a superior level of treatment or clear advantage to on-site treatment BMPs		✓

**4. Volume-based calculation (approximate) for sizing on-site or off-site Stormwater Retention/Infiltration, Harvest & Re-Use or Biotreatment facilities**

- 1) Calculate the “Watershed Imperviousness Ratio”, *i*, which is equal to the percent of impervious area in the BMP Drainage Area divided by 100.
- 2) Calculate the composite runoff coefficient  $C_{BMP}$  for the Drainage Area above using the following equation:

$$C_{BMP} = 0.858i^3 - 0.78i^2 + 0.774i + 0.04$$

where:  $C_{BMP}$  = composite runoff coefficient; and,  
*i* = watershed imperviousness ratio.

- 3) Determine the area-averaged “6-hour Mean Storm Rainfall”,  $P_6$ , for the Drainage Area. This is calculated by multiplying the area averaged 2-year 1-hour value (0.55”-0.6”) by the appropriate regression coefficient from Table 1 (1.4807). The 2-yr, 1-hr value for southern Ontario is approximately to 0.5” ( $P_6 = 0.5 \times 1.4807 = 0.74$  and northern Ontario is approximately 0.6” in/hr ( $P_6 = 0.6 \times 1.4807 = 0.89$ ).
- 4) Determine the appropriate drawdown time. Use the regression constant  $a = 1.582$  for 24 hours and  $a = 1.963$  for 48 hours. *Note: Regression constants are provided for both 24 hour and 48 hour drawdown times; however, 48 hour drawdown times should be used in most areas of California. Drawdown times in excess of 48 hours should be used with caution as vector breeding can be a problem after water has stood in excess of 72 hours. (Use of the 24 hour drawdown time should be limited to drainage areas with coarse soils (Class ‘A’ soils, that readily drain.)*
- 5) Calculate the “Maximized Detention Volume”,  $P_0$ , using the following equation:

$$P_0 = a \cdot C_{BMP} \cdot P_6$$

where:  $P_0$  = Maximized Detention Volume, in inches

$a = 1.582$  for 24 hour and  $a = 1.963$  for 48 hour drawdown,  
 $C_{BMP}$  = composite runoff coefficient; and,  
 $P_6$  = 6-hour Mean Storm Rainfall, in inches

6) Calculate the “Target Capture Volume”,  $V_0$ , using the following equation:

$$V_0 = (P_0 \cdot A) / 12$$

where:  $V_0$  = Target Capture Volume, in acre-feet  
 $P_0$  = Maximized Detention Volume, in inches; and,  
 $A$  = BMP Drainage Area, in acres

**Project Volume-based calculation (approximate) for planned on-site or off-site Stormwater Retention/Infiltration, Harvest & Re-Use or Biotreatment facilities:**

Variable	Factor/Formula	Area 1 Result	Area 2 Result	Area 3 Result	Area 4 Result
Ratio of impervious surface/total site surface	(i)	89%			
$C_{BMP}$ = runoff coefficient	$0.858i^3 - 0.78i^2 + 0.774i + 0.04 =$	0.716			
$P_6$	** $P_6$ = 2-yr, 1- hr depth*1.4807 =	0.78			
Detention Volume- acre inches	$P_0 = a * C_{BMP} * P_6 =$	1.09			
Drawdown rate of basin/trench (a)	1.582 for 24-hr drawdown or 1.963 for 48-hr drawdown =	1.963			
Project Total Area (ac)	(A)	12.85			
Design Capture Volume, cu. ft. (DCV)	$V_0 = [(P_0 * A)/12]*43560 =$	51,054			
Water Volume infiltrated in first 3 hrs of storm	Vol= in/hr/12 x ft <sup>2</sup> of infiltration area x 3 hrs	N/A			
Retention/treatment Volume provided, cu. ft.	Retention capacity of basins, trenches, underground system or biotreatment proposed	140,009			

\*\*For  $P_6$  value, use site coordinates and NOAA website to determine project’s average 2-yr, 1-hr rainfall depth, at: [http://hdsc.nws.noaa.gov/hdsc/pfds/sa/sca\\_pfds.html](http://hdsc.nws.noaa.gov/hdsc/pfds/sa/sca_pfds.html) .

**5. Hydrologic Conditions of Concern (HCOC) and use of the on-line San Bernardino County HCOC Map for determining necessary mitigation steps necessary if there are HCOCs downstream of a project:**

Project applicants may access the on-line HCOC Map at: <http://sbcounty.permitrack.com/WAP/> . The map will indicate any hydrology concerns with downstream waterways that are hydraulically connected to the project and will indicate if there are any approved regional projects downstream that could be utilized for off-site mitigation of HCOCs. Please indicate here if the project will or will not be able to retain/infiltrate, harvest and use or biotreat and detain the DCV, on-site, as calculated in Section 4 and if there are HCOCs identified downstream of the project:

Retain or Harvest/Use the DCV on site?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
Biotreat the DCV but not infiltrate the runoff?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
HCOCs identified downstream of site?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>

If the entire DCV will not be retained on site, the DCV is biotreated but not infiltrated or additional detention capacity is needed to address identified HCOCs, downstream of the site, please list here, what additional mitigation measures will be utilized (on-site or off-site) to address HCOCs (see Section 4.2.1-4.2.3 of the SB County WQMP Technical Guidance):

**The entire DCV is retained on site.**

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**6. Site Plan and Conceptual Grading/Drainage Plan requirements for submission with the Preliminary WQMP:**

Provide a Site Plan and Conceptual Grading/Drainage Plan along with this Preliminary WQMP, which conceptually shows the proposed locations of buildings, homes, parking lots, parks, new paved roadways, landscaped areas, drainage patterns and drainage sub-areas, methods of conveyance, proposed retention/infiltration, harvest & use or biotreatment facilities that are planned for installation. Where it is determined to be infeasible to capture and detain design storm runoff volumes, on-site, please include other design features, as described in Section 3, above. Include numbered or lettered notes on the Site Plan with a legend detailing other BMPs, as described in Section 3.

## **Appendices**

Appendix A – Preliminary WQMP Exhibit

Appendix B – WAP Report

Appendix C – Soils Map

Appendix D – NOAA Precipitation Data

Appendix E – Preliminary BMP Details

Appendix F – Infiltration Report

Appendix G – Preliminary Grading Plan

# APPENDIX A

## PRELIMINARY WQMP EXHIBIT

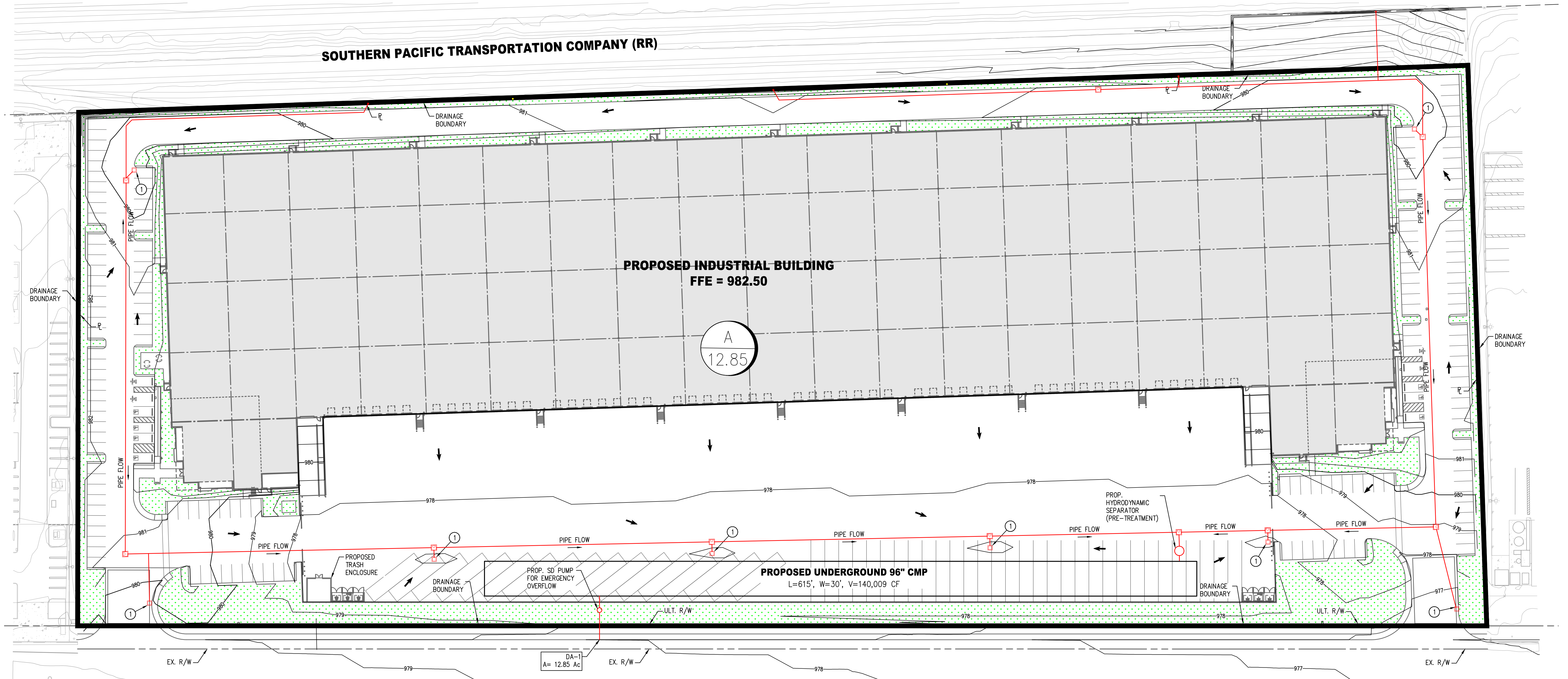


**SITE VICINITY MAP**

<b>WestLAND</b> <b>Group, Inc.</b> Land Surveyors • Civil Engineers • GIS 4150 CONCOURS, ONTARIO, CA 91764 PHONE: (909) 989-9789 FAX: (909) 989-9660	<b>Job Number:</b> 2021-502
	<b>Date:</b> 03/23/2022
	<b>Scale:</b> NOT TO SCALE

Drawing Name: P:\Year\_2021\2021-502 5355 Airport - Prologis - John Carter\06 Engineering\Exhibits\1\_Aerial View Map\2021-502\_EXH\_AERIAL.dwg

SOUTHERN PACIFIC TRANSPORTATION COMPANY (RR)



AIRPORT DRIVE

**GENERAL NOTES**

- SEE PRELIMINARY WQMP REPORT, PREPARED BY LANGAN ENGINEERING, FOR THE COMPLETE DESIGN CAPTURE VOLUME AND INFILTRATION BASIN CALCULATIONS.
- CALCULATIONS WERE BASED ON THE REQUIREMENTS ON THE SAN BERNARDINO TECHNICAL GUIDANCE DOCUMENT FOR WATER QUALITY MANAGEMENT PLANS - SANTA ANA RIVER.
- PROPOSED ON-SITE DRAINAGE SYSTEM LAYOUT IS PRELIMINARY.
- PROPOSED OFF-SITE WQMP WILL BE DESIGNED AND SHOWN ON THE FINAL WQMP REPORT.
- PRELIMINARY DETAILS OF THE INFILTRATION CHAMBERS AND CDS UNITS ARE IN THE PRELIMINARY WQMP REPORT.
- FIELD INFILTRATION RATES WERE OBTAINED FROM INFILTRATION REPORT, PREPARED BY SOUTHERN CALIFORNIA GEOTECHNICAL, INC., DATED MARCH 9, 2022.

**ABBREVIATIONS**

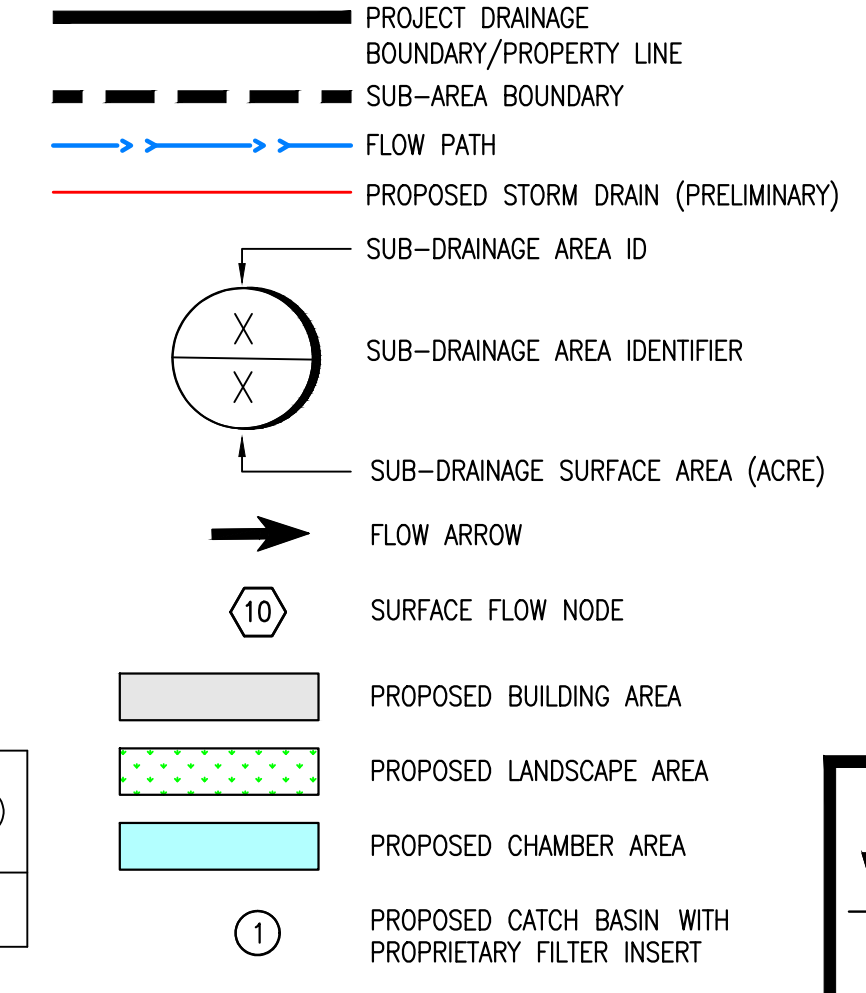
CF	CUBIC FEET
CL OR C	CENTERLINE
CMP	CORRUGATED METAL PIPE
DA	DRAINAGE AREA
EX	EXISTING
FS	FINISHED SURFACE ELEVATION
HR	HOURLY
IN	INCH/INCHES
INV	INVERT ELEVATION
L	LENGTH
R/W	RIGHT OF WAY
PL OR P	PROPERTY LINE
PROP	PROPOSED
SD	STORM DRAIN
TYP	TYPICAL
ULT	ULTIMATE
V	VOLUME
W	WIDTH

**PROJECT SITE SUMMARY**

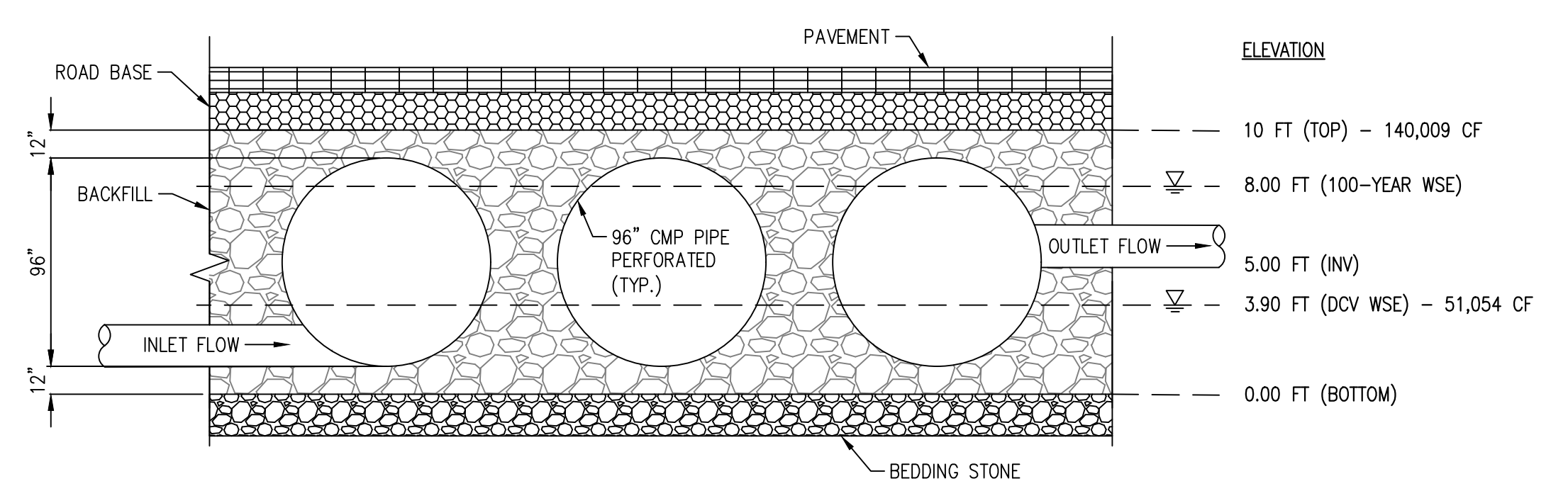
**AREA A**

SITE AREA:	12.85 ACRE
SOIL GROUP:	A (PER USDA WEB SOIL SURVEY)
IMPERVIOUS:	89% (POST-DEVELOPMENT)
ISOHYETALS:	0.526" (2-YEAR 1 HOUR)
CN NUMBER:	32 (SOIL GROUP A)
FREQUENCY:	100 YEAR (FOR STORM DRAIN DESIGN)
METHOD:	SAN BERNARDINO COUNTY TGD - SANTA ANA RIVER

**LEGEND**



**CHAMBER SECTION DETAIL**



**BMP SUMMARY TABLE**

DMA ID	SURFACE AREA		BMP TYPE	IMPERVIOUS FRACTION	C <sub>BMP</sub>	FIELD INFILTRATION BASIN (IN/HR)	DESIGN PERCOLATION RATE (IN/HR)	DESIGN CAPTURE VOLUME (CU-FT)	PROPOSED CHAMBER VOLUME (CU-FT)	DESIGN CAPTURE VOLUME PONDING DEPTH (FT)	DRAWDOWN (HR)
	SF	ACRES									
A	559,755	12.85	UNDERGROUND INFILTRATION CHAMBER	89%	0.89	3.00	1.50	51,054	140,009	3.90	31.2

- NOTE:
- 2 YEAR, 1 HOUR RAINFALL DEPTH = 0.526 (NOAA ATLAS 14)
  - REGRESSION COEFFICIENT = 1.4807 (SB COUNTY TGD SECTION 4.1)
  - 48 HOUR DRAWDOWN COEFFICIENT = 1.963 (SB COUNTY TGD SECTION 4.1)

PREPARED BY:  
**WestLAND Group, Inc.** Land Surveyors • Civil Engineers • GIS  
 4150 CONCOURS, ONTARIO, CA 91764  
 PHONE: (909) 989-9789 FAX: (909) 989-9660  
 JOB NO: 2021-502

INDUSTRIAL BUILDING  
**POST-DEVELOPMENT WQMP EXHIBIT**  
 5355 AIRPORT DRIVE  
 CITY OF ONTARIO

DATE: Mar 2022  
 FIGURE NO.  
**1**

Drawing Name: P:\Year\_2021\2021-502\_5355 Airport - Prelim - Jan - Conca\06 Engineering\Reports\WQMP\3 Exhibit\PRELIMINARY\2021-502-PRELIM\_EXH\_WQMP.dwg



# APPENDIX B

## WAP REPORT



## WQMP Project Report

### County of San Bernardino Stormwater Program

Santa Ana River Watershed Geodatabase

Tuesday, March 22, 2022

Note: The information provided in this report and on the Stormwater Geodatabase for the County of San Bernardino Stormwater Program is intended to provide basic guidance in the preparation of the applicant's Water Quality Management Plan (WQMP) and should not be relied upon without independent verification.

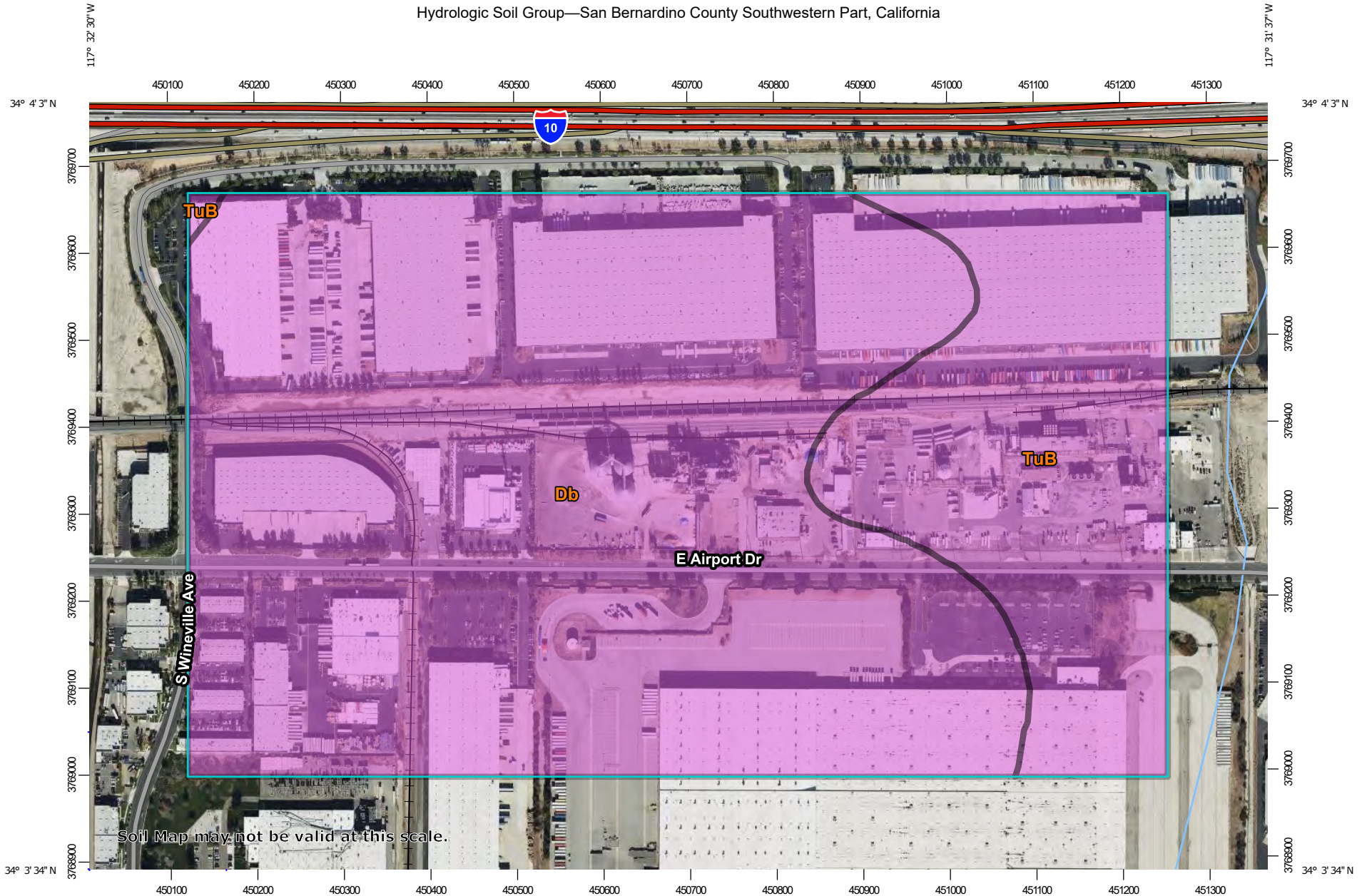
<b>Project Site Parcel Number(s):</b>	023805229, 023805208, 023805220
<b>Project Site Acreage:</b>	35.408
<b>HCOC Exempt Area:</b>	Yes. Verify that the project is completely within the HCOC exemption area.
<b>Closest Receiving Waters:</b>	<b>System Number</b> - 701
<small>(Applicant to verify based on local drainage facilities and topography.)</small>	<b>Facility Name</b> - Lower Etiwanda Creek Channel
	<b>Owner</b> - OTHERS
<b>Closest channel segment's susceptibility to Hydromodification:</b>	EHM
<b>Highest downstream hydromodification susceptibility:</b>	EHM
<b>Is this drainage segment subject to TMDLs?</b>	No
<b>Are there downstream drainage segments subject to TMDLs?</b>	No
<b>Is this drainage segment a 303d listed stream?</b>	No
<b>Are there 303d listed streams downstream?</b>	No
<b>Are there unlined downstream waterbodies?</b>	No
<b>Project Site Onsite Soil Group(s):</b>	A
<b>Environmentally Sensitive Areas within 200':</b>	Grassland/Remanent RAFSS, DELHI SANDS
<b>Groundwater Depth (FT):</b>	-329
<b>Parcels with potential septic tanks within 1000':</b>	No
<b>Known Groundwater Contamination Plumes within 1000':</b>	Yes
<b>Studies and Reports Related to Project Site:</b>	<a href="#">City of Ontario Water Quality Report</a> <a href="#">Chino Basin Recharge Master Plan</a> <a href="#">Chino Basin Water Master 32nd Annual Report</a> <a href="#">Sphere of Influence General Plan Amendment</a> <a href="#">CSDP Project No. 1</a> <a href="#">CSDP 1 Comprehensive Storm Drain</a> <a href="#">CSDP Drainage Study Calculations</a> <a href="#">Review Report of the District Engineer</a> <a href="#">Proposed East Etiwanda Channel Planning Study</a> <a href="#">San Sevaine - Boyle Map 0001</a> <a href="#">San Sevaine - Boyle Map 0002</a> <a href="#">San Sevaine - Boyle Map 0003</a> <a href="#">SBCounty CSDP Project No.2 Volume 1</a> <a href="#">SBCounty CSDP Project No.2 Volume 2</a> <a href="#">Volume 2 Map</a> <a href="#">SBCounty CSDP Project No.3 Volume I</a> <a href="#">SBCounty CSDP Project No.3 Volume II</a>

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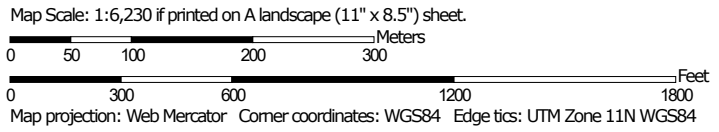
# Appendix C

## SOILS MAP

Hydrologic Soil Group—San Bernardino County Southwestern Part, California




Soil Map may not be valid at this scale.



### MAP LEGEND

**Area of Interest (AOI)**









 Area of Interest (AOI)

**Soils**

**Soil Rating Polygons**





-  A
-  A/D
-  B
-  B/D
-  C
-  C/D
-  D
-  Not rated or not available

**Soil Rating Lines**


-  A
-  A/D
-  B
-  B/D
-  C
-  C/D
-  D
-  Not rated or not available

**Soil Rating Points**






-  A
-  A/D
-  B
-  B/D

-  C
-  C/D
-  D
-  Not rated or not available


**Water Features**

 Streams and Canals

**Transportation**

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

**Background**

 Aerial Photography

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

**Warning:** Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Bernardino County Southwestern Part, California  
 Survey Area Data: Version 13, Sep 13, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 5, 2020—Feb 6, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Db	Delhi fine sand	A	143.7	76.2%
TuB	Tujunga loamy sand, 0 to 5 percent slopes	A	44.9	23.8%
<b>Totals for Area of Interest</b>			<b>188.6</b>	<b>100.0%</b>

### Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

### Rating Options

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff: None Specified*

*Tie-break Rule: Higher*

# Appendix D

## NOAA PRECIPITATION DATA





**NOAA Atlas 14, Volume 6, Version 2**  
**Location name: Ontario, California, USA\***  
**Latitude: 34.0635°, Longitude: -117.5335°**  
**Elevation: 983.19 ft\*\***  
 \* source: ESRI Maps  
 \*\* source: USGS



**POINT PRECIPITATION FREQUENCY ESTIMATES**

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

[PF\\_tabular](#) | [PF\\_graphical](#) | [Maps\\_&\\_aerials](#)

**PF tabular**

<b>PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)<sup>1</sup></b>										
<b>Duration</b>	<b>Average recurrence interval (years)</b>									
	<b>1</b>	<b>2</b>	<b>5</b>	<b>10</b>	<b>25</b>	<b>50</b>	<b>100</b>	<b>200</b>	<b>500</b>	<b>1000</b>
<b>5-min</b>	<b>0.104</b> (0.087-0.126)	<b>0.137</b> (0.114-0.166)	<b>0.181</b> (0.150-0.220)	<b>0.216</b> (0.178-0.265)	<b>0.265</b> (0.210-0.336)	<b>0.302</b> (0.235-0.392)	<b>0.341</b> (0.258-0.454)	<b>0.381</b> (0.281-0.522)	<b>0.436</b> (0.307-0.623)	<b>0.479</b> (0.326-0.710)
<b>10-min</b>	<b>0.149</b> (0.124-0.180)	<b>0.196</b> (0.164-0.238)	<b>0.259</b> (0.215-0.315)	<b>0.310</b> (0.255-0.380)	<b>0.379</b> (0.302-0.482)	<b>0.433</b> (0.337-0.562)	<b>0.488</b> (0.370-0.650)	<b>0.546</b> (0.402-0.748)	<b>0.624</b> (0.441-0.894)	<b>0.686</b> (0.467-1.02)
<b>15-min</b>	<b>0.180</b> (0.150-0.218)	<b>0.237</b> (0.198-0.288)	<b>0.313</b> (0.260-0.381)	<b>0.375</b> (0.308-0.460)	<b>0.459</b> (0.365-0.583)	<b>0.524</b> (0.408-0.680)	<b>0.591</b> (0.448-0.787)	<b>0.660</b> (0.486-0.905)	<b>0.755</b> (0.533-1.08)	<b>0.830</b> (0.565-1.23)
<b>30-min</b>	<b>0.270</b> (0.225-0.327)	<b>0.356</b> (0.297-0.432)	<b>0.470</b> (0.390-0.571)	<b>0.562</b> (0.463-0.690)	<b>0.689</b> (0.548-0.875)	<b>0.786</b> (0.612-1.02)	<b>0.886</b> (0.672-1.18)	<b>0.991</b> (0.730-1.36)	<b>1.13</b> (0.800-1.62)	<b>1.25</b> (0.848-1.85)
<b>60-min</b>	<b>0.399</b> (0.332-0.483)	<b>0.526</b> (0.438-0.638)	<b>0.693</b> (0.576-0.843)	<b>0.830</b> (0.683-1.02)	<b>1.02</b> (0.808-1.29)	<b>1.16</b> (0.903-1.51)	<b>1.31</b> (0.993-1.74)	<b>1.46</b> (1.08-2.00)	<b>1.67</b> (1.18-2.39)	<b>1.84</b> (1.25-2.73)
<b>2-hr</b>	<b>0.598</b> (0.498-0.724)	<b>0.777</b> (0.647-0.943)	<b>1.01</b> (0.838-1.23)	<b>1.20</b> (0.986-1.47)	<b>1.45</b> (1.15-1.84)	<b>1.65</b> (1.28-2.14)	<b>1.84</b> (1.40-2.45)	<b>2.05</b> (1.51-2.80)	<b>2.32</b> (1.64-3.32)	<b>2.54</b> (1.73-3.76)
<b>3-hr</b>	<b>0.757</b> (0.631-0.917)	<b>0.979</b> (0.815-1.19)	<b>1.26</b> (1.05-1.54)	<b>1.49</b> (1.23-1.83)	<b>1.80</b> (1.43-2.29)	<b>2.04</b> (1.58-2.64)	<b>2.27</b> (1.72-3.02)	<b>2.51</b> (1.85-3.45)	<b>2.84</b> (2.00-4.06)	<b>3.09</b> (2.11-4.58)
<b>6-hr</b>	<b>1.08</b> (0.898-1.31)	<b>1.39</b> (1.16-1.69)	<b>1.79</b> (1.49-2.18)	<b>2.11</b> (1.73-2.58)	<b>2.52</b> (2.01-3.21)	<b>2.84</b> (2.21-3.68)	<b>3.15</b> (2.39-4.20)	<b>3.47</b> (2.55-4.75)	<b>3.89</b> (2.74-5.56)	<b>4.20</b> (2.86-6.24)
<b>12-hr</b>	<b>1.42</b> (1.18-1.72)	<b>1.85</b> (1.54-2.24)	<b>2.39</b> (1.98-2.90)	<b>2.81</b> (2.31-3.45)	<b>3.36</b> (2.67-4.26)	<b>3.76</b> (2.93-4.88)	<b>4.15</b> (3.15-5.53)	<b>4.55</b> (3.35-6.23)	<b>5.06</b> (3.57-7.24)	<b>5.43</b> (3.70-8.06)
<b>24-hr</b>	<b>1.89</b> (1.67-2.18)	<b>2.51</b> (2.22-2.89)	<b>3.27</b> (2.89-3.79)	<b>3.87</b> (3.39-4.51)	<b>4.64</b> (3.93-5.59)	<b>5.20</b> (4.31-6.39)	<b>5.74</b> (4.65-7.24)	<b>6.28</b> (4.95-8.13)	<b>6.97</b> (5.27-9.40)	<b>7.48</b> (5.47-10.4)
<b>2-day</b>	<b>2.31</b> (2.04-2.66)	<b>3.13</b> (2.77-3.61)	<b>4.17</b> (3.68-4.83)	<b>4.99</b> (4.37-5.82)	<b>6.07</b> (5.14-7.32)	<b>6.87</b> (5.70-8.45)	<b>7.66</b> (6.21-9.66)	<b>8.46</b> (6.66-11.0)	<b>9.50</b> (7.18-12.8)	<b>10.3</b> (7.52-14.3)
<b>3-day</b>	<b>2.52</b> (2.23-2.91)	<b>3.47</b> (3.07-4.01)	<b>4.70</b> (4.14-5.44)	<b>5.68</b> (4.97-6.63)	<b>6.99</b> (5.92-8.43)	<b>7.98</b> (6.62-9.82)	<b>8.98</b> (7.27-11.3)	<b>9.99</b> (7.87-12.9)	<b>11.3</b> (8.58-15.3)	<b>12.4</b> (9.05-17.3)
<b>4-day</b>	<b>2.76</b> (2.44-3.18)	<b>3.84</b> (3.39-4.43)	<b>5.23</b> (4.62-6.06)	<b>6.36</b> (5.57-7.42)	<b>7.89</b> (6.68-9.51)	<b>9.05</b> (7.51-11.1)	<b>10.2</b> (8.29-12.9)	<b>11.4</b> (9.01-14.8)	<b>13.1</b> (9.88-17.6)	<b>14.3</b> (10.5-20.0)
<b>7-day</b>	<b>3.24</b> (2.87-3.74)	<b>4.54</b> (4.02-5.24)	<b>6.26</b> (5.52-7.24)	<b>7.66</b> (6.70-8.93)	<b>9.57</b> (8.10-11.5)	<b>11.0</b> (9.16-13.6)	<b>12.6</b> (10.2-15.8)	<b>14.1</b> (11.1-18.3)	<b>16.2</b> (12.3-21.9)	<b>17.9</b> (13.1-25.0)
<b>10-day</b>	<b>3.50</b> (3.10-4.03)	<b>4.93</b> (4.36-5.69)	<b>6.83</b> (6.03-7.91)	<b>8.40</b> (7.35-9.80)	<b>10.6</b> (8.93-12.7)	<b>12.2</b> (10.1-15.0)	<b>13.9</b> (11.3-17.6)	<b>15.7</b> (12.4-20.4)	<b>18.2</b> (13.8-24.5)	<b>20.1</b> (14.7-28.1)
<b>20-day</b>	<b>4.07</b> (3.60-4.69)	<b>5.82</b> (5.15-6.72)	<b>8.18</b> (7.22-9.47)	<b>10.2</b> (8.89-11.9)	<b>12.9</b> (10.9-15.6)	<b>15.1</b> (12.5-18.6)	<b>17.4</b> (14.1-21.9)	<b>19.8</b> (15.6-25.6)	<b>23.2</b> (17.5-31.2)	<b>25.8</b> (18.9-36.1)
<b>30-day</b>	<b>4.80</b> (4.25-5.54)	<b>6.90</b> (6.10-7.96)	<b>9.75</b> (8.60-11.3)	<b>12.2</b> (10.6-14.2)	<b>15.6</b> (13.2-18.8)	<b>18.3</b> (15.2-22.5)	<b>21.2</b> (17.1-26.7)	<b>24.2</b> (19.1-31.4)	<b>28.5</b> (21.6-38.5)	<b>32.0</b> (23.4-44.6)
<b>45-day</b>	<b>5.71</b> (5.05-6.58)	<b>8.17</b> (7.22-9.43)	<b>11.6</b> (10.2-13.4)	<b>14.5</b> (12.6-16.9)	<b>18.6</b> (15.7-22.4)	<b>21.9</b> (18.2-27.0)	<b>25.5</b> (20.6-32.1)	<b>29.3</b> (23.1-37.9)	<b>34.7</b> (26.3-46.8)	<b>39.1</b> (28.6-54.6)
<b>60-day</b>	<b>6.64</b> (5.88-7.65)	<b>9.42</b> (8.33-10.9)	<b>13.3</b> (11.7-15.4)	<b>16.6</b> (14.5-19.4)	<b>21.4</b> (18.1-25.8)	<b>25.3</b> (21.0-31.1)	<b>29.5</b> (23.9-37.1)	<b>33.9</b> (26.7-44.0)	<b>40.4</b> (30.5-54.5)	<b>45.7</b> (33.4-63.7)

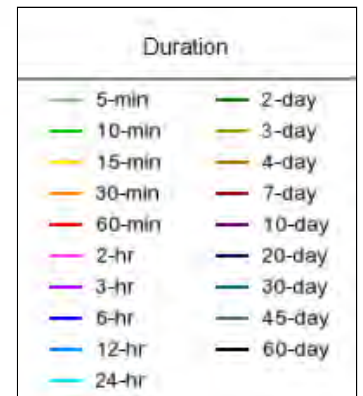
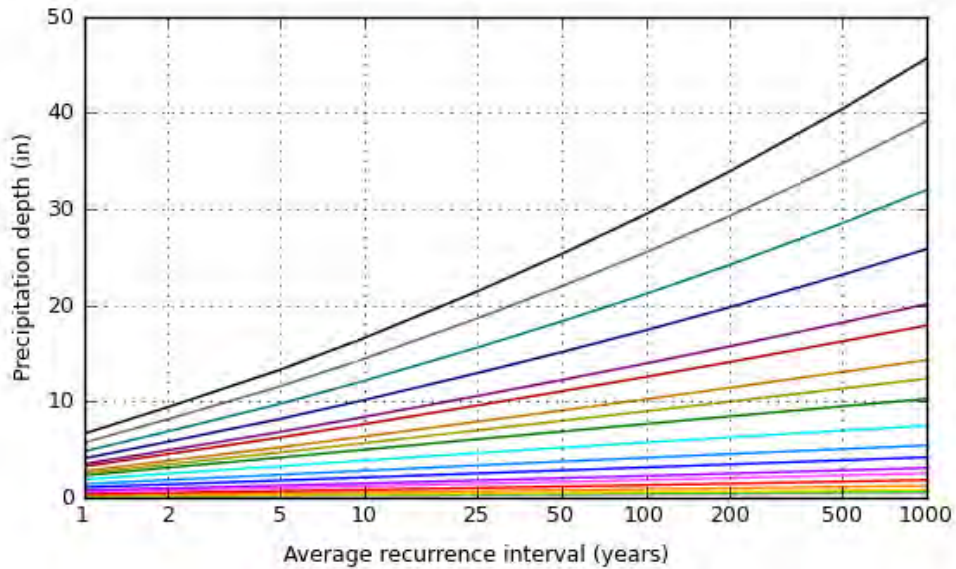
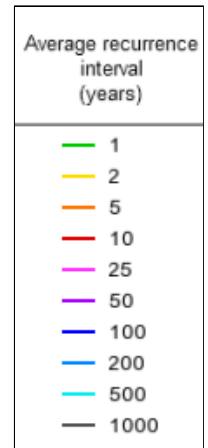
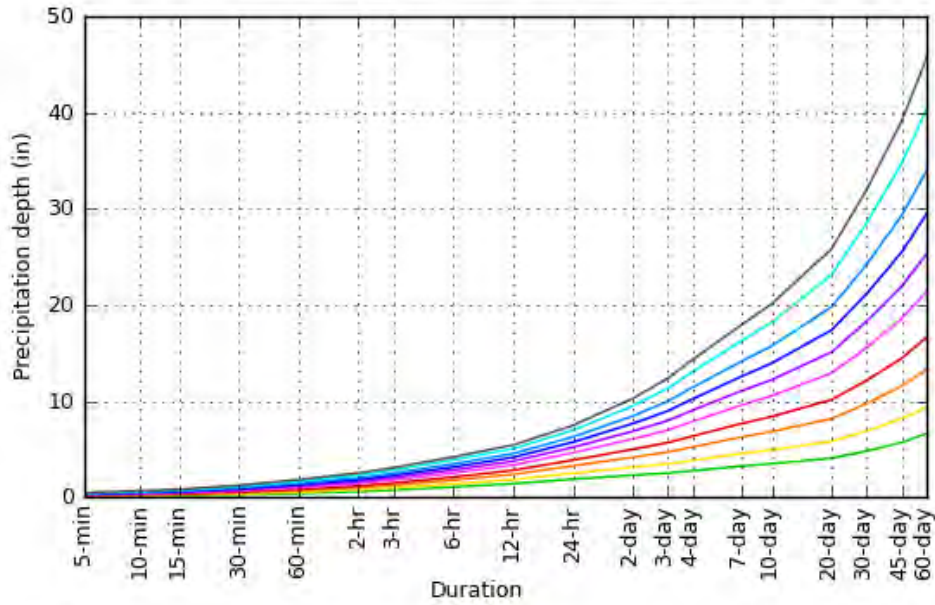
<sup>1</sup> Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

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**PF graphical**

PDS-based depth-duration-frequency (DDF) curves

Latitude: 34.0635°, Longitude: -117.5335°



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**Maps & aeriels**

**Small scale terrain**

# APPENDIX E

## PRELIMINARY BMP DETAILS

# PROJECT SUMMARY

## CALCULATION DETAILS

- LOADING = HS20/HS25
- APPROX. LINEAR FOOTAGE = 1,851 LF

## STORAGE SUMMARY

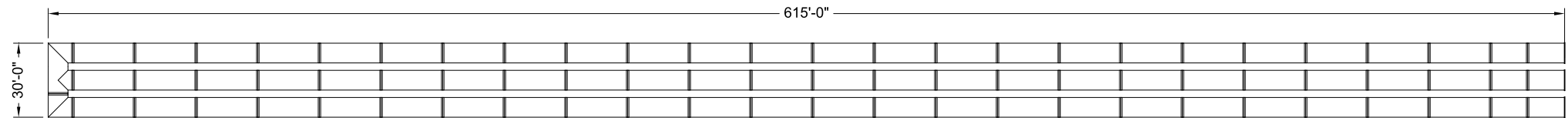
- STORAGE VOLUME REQUIRED = 140,000 CF
- PIPE STORAGE VOLUME = 93,041 CF
- BACKFILL STORAGE VOLUME = 46,967 CF
- TOTAL STORAGE PROVIDED = 140,009 CF

## PIPE DETAILS

- DIAMETER = 96"
- CORRUGATION = 5x1
- GAGE = 16
- COATING = ALT2
- WALL TYPE = PERFORATED
- BARREL SPACING = 36"

## BACKFILL DETAILS

- WIDTH AT ENDS = 24"
- ABOVE PIPE = 12"
- WIDTH AT SIDES = 24"
- BELOW PIPE = 12"



## NOTES

- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE. ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE 2<sup>2</sup>/<sub>3</sub>" x 1<sup>1</sup>/<sub>2</sub>" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- BAND TYPE TO BE DETERMINED UPON FINAL DESIGN.
- THE PROJECT SUMMARY IS REFLECTIVE OF THE DYODS DESIGN, QUANTITIES ARE APPROX. AND SHOULD BE VERIFIED UPON FINAL DESIGN AND APPROVAL. FOR EXAMPLE, TOTAL EXCAVATION DOES NOT CONSIDER ALL VARIABLES SUCH AS SHORING AND ONLY ACCOUNTS FOR MATERIAL WITHIN THE ESTIMATED EXCAVATION FOOTPRINT.
- THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES AND DO NOT REFLECT ANY LOCAL PREFERENCES OR REGULATIONS. PLEASE CONTACT YOUR LOCAL CONTECH REP FOR MODIFICATIONS.

**ASSEMBLY**  
SCALE: 1" = 60'

C:\EXPORT\TEMPLATES\CMP\_18.DWG 10/18/2019 10:02 AM

<small>The design and information shown on this drawing is provided as a service to the project owner, engineer and contractor by Contech Engineered Solutions LLC ("Contech"). Neither this drawing, nor any part thereof, may be used, reproduced or modified in any manner without the prior written consent of Contech. Failure to comply is done at the user's own risk and Contech expressly disclaims any liability or responsibility for such use.</small>		
<small>If discrepancies between the supplied information upon which the drawing is based and actual field conditions are encountered as site work progresses, these discrepancies must be reported to Contech immediately for re-evaluation of the design. Contech accepts no liability for designs based on missing, incomplete or inaccurate information supplied by others.</small>		
DATE	REVISION DESCRIPTION	BY

**CONTECH**  
ENGINEERED SOLUTIONS LLC  
www.ContechES.com

9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069  
800-338-1122 513-645-7000 513-645-7993 FAX

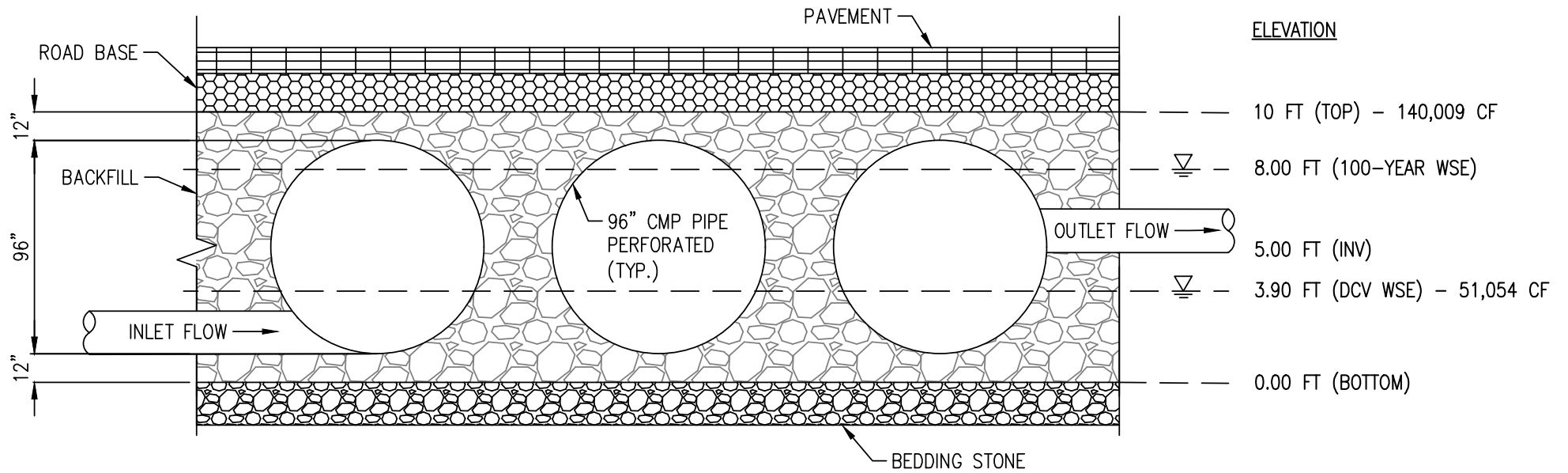
**CONTECH**  
CMP DETENTION SYSTEMS

CONTECH  
**DYODS**  
DRAWING

DYO14828 5355 Airport Drive  
Underground Infiltration Chamber #1  
Ontario, CA  
DETENTION SYSTEM

PROJECT No.: 9371	SEQ. No.: 14828	DATE: 3/23/2022
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.:		<b>1</b>

# CHAMBER SECTION DETAIL



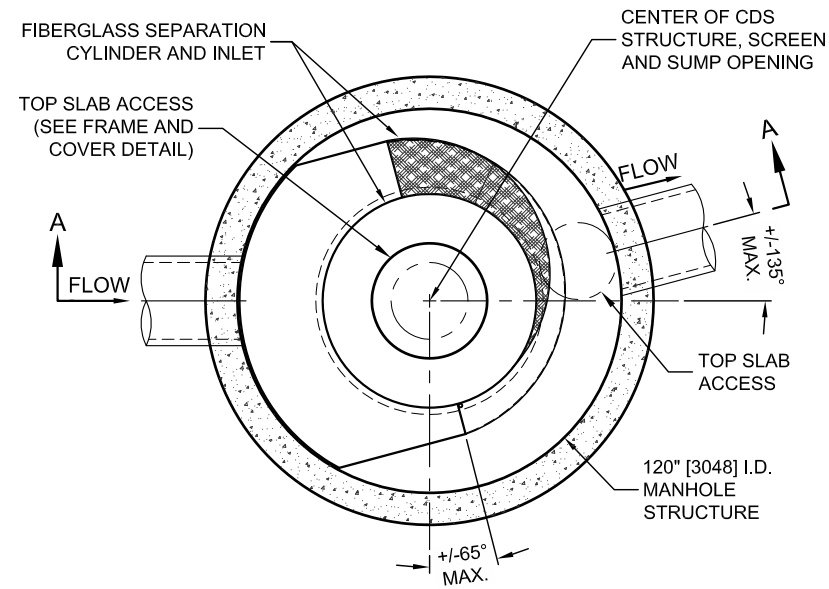


## CDS5653-10-C DESIGN NOTES

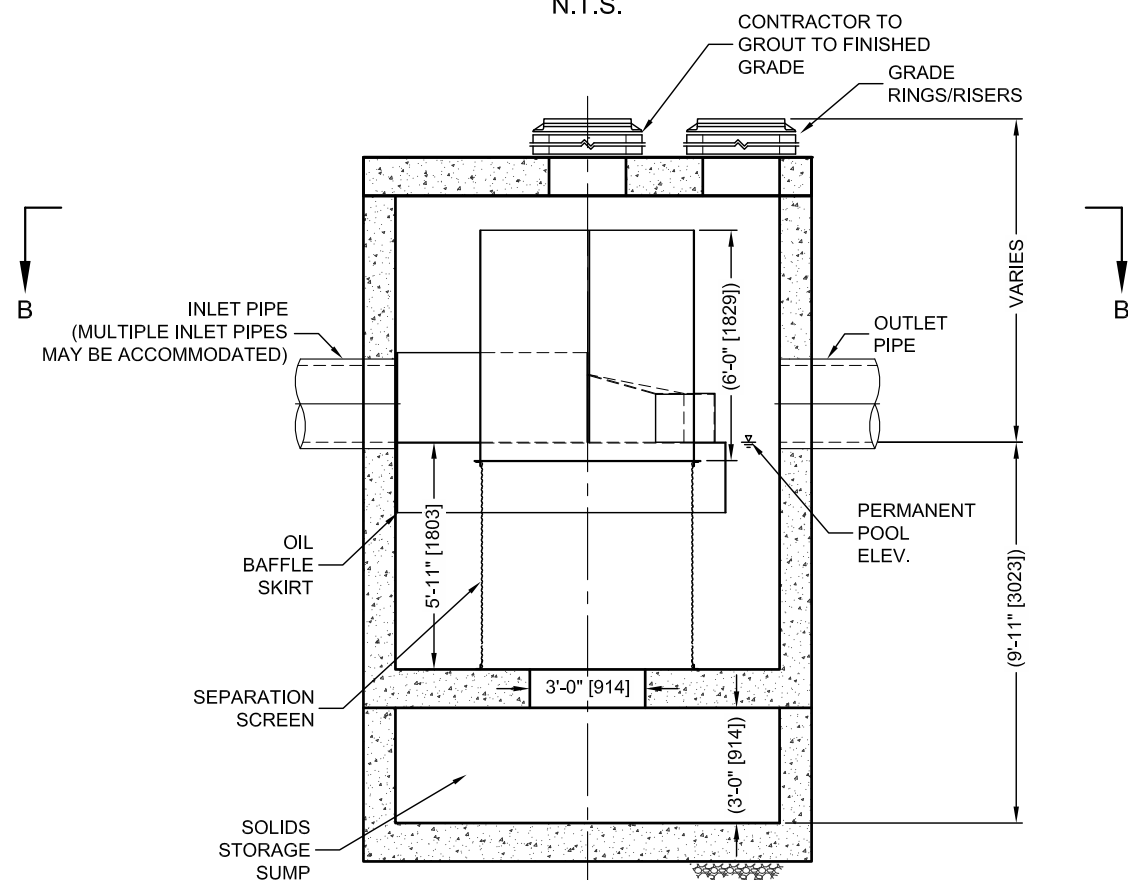
THE STANDARD CDS5653-10-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

### CONFIGURATION DESCRIPTION

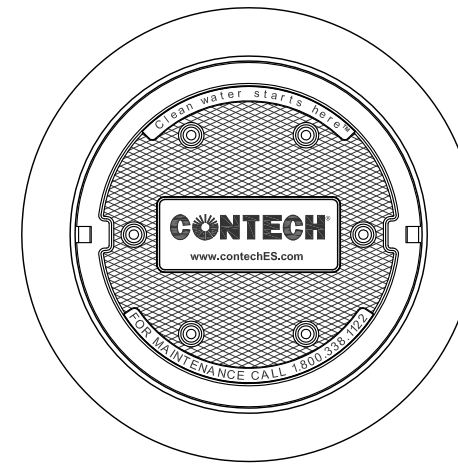
- GRATED INLET ONLY (NO INLET PIPE)
- GRATED INLET WITH INLET PIPE OR PIPES
- CURB INLET ONLY (NO INLET PIPE)
- CURB INLET WITH INLET PIPE OR PIPES
- SEPARATE OIL BAFFLE (SINGLE INLET PIPE REQUIRED FOR THIS CONFIGURATION)
- SEDIMENT WEIR FOR NJDEP / NJCAT CONFORMING UNITS



**PLAN VIEW B-B**  
N.T.S.



**ELEVATION A-A**  
N.T.S.



**FRAME AND COVER**  
(DIAMETER VARIES)  
N.T.S.

### SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID				
WATER QUALITY FLOW RATE (CFS OR L/s)				*
PEAK FLOW RATE (CFS OR L/s)				*
RETURN PERIOD OF PEAK FLOW (YRS)				*
SCREEN APERTURE (2400 OR 4700)				*
PIPE DATA:		I.E.	MATERIAL	DIAMETER
INLET PIPE 1		*	*	*
INLET PIPE 2		*	*	*
OUTLET PIPE		*	*	*
RIM ELEVATION				*
ANTI-FLOTATION BALLAST		WIDTH	HEIGHT	
		*	*	
NOTES/SPECIAL REQUIREMENTS:				
* PER ENGINEER OF RECORD				

#### GENERAL NOTES

1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. [www.contechES.com](http://www.contechES.com)
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET HS20 (AASHTO M 306) AND BE CAST WITH THE CONTECH LOGO.
6. IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

#### INSTALLATION NOTES

- A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
- C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
- D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
- E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

**CONTECH**  
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CDS5653-10-C  
INLINE CDS  
STANDARD DETAIL



# APPENDIX F

## INFILTRATION REPORT



March 9, 2022

Prologis  
17777 Center Court Drive North, Suite 100  
Cerritos, California 90703



**SOUTHERN  
CALIFORNIA  
GEOTECHNICAL**  
*A California Corporation*

Attention: Mr. John Carter  
Director, Project Management

Project No.: 22G128-2

Subject: Results of Infiltration Testing  
Proposed Warehouse  
5355 East Airport Drive  
Ontario, California

Reference: Geotechnical Investigation, Proposed Warehouse, 5355 East Airport Drive, Ontario, California, prepared by Southern California Geotechnical, Inc. (SCG) for Prologis, SCG Project No. 22G128-1, dated March 9, 2022.

Dear Mr. Carter:

In accordance with your request, we have conducted infiltration testing at the subject site. We are pleased to present this report summarizing the results of the infiltration testing and our design recommendations.

### Scope of Services

The scope of services performed for this project was in general accordance with our Proposal No. 22P129, dated January 21, 2022. The scope of services included site reconnaissance, subsurface exploration, field testing, and engineering analysis to determine the infiltration rates of the on-site soils. The infiltration testing was performed in general accordance with the guidelines published in the Riverside County – Low Impact Development BMP Design Handbook – Section 2.3 of Appendix A, prepared for the Riverside County Department of Environmental Health (RCDEH), dated December, 2013. The San Bernardino County standards defer to the guidelines published by the RCDEH.

### Site and Project Description

The subject site is located on the north side of East Airport Drive, 1,310± feet east of the intersection of South Wineville Avenue and East Airport Drive in Ontario, California. The site is also referenced by the street address 5355 East Airport Drive. The site is bounded to the north by Union Pacific railroad tracks, to the east and west by an industrial development, and to the south by East Airport Drive. The general location of the site is illustrated on the Site Location Map, enclosed as Plate 1 of this report.

The site consists of an irregular-shaped property, 14.58± acres in size. The site is developed to manufacture and store animal feed grains. The development includes several buildings and shed structures ranging in size from 2,200± ft<sup>2</sup> to 20,175± ft<sup>2</sup>, and several silos and above-ground

storage tanks (ASTs) primarily located in the north-central region of the site. The existing structures are generally of concrete tilt-up and/or metal-framed construction, and are presumed to be supported on conventional shallow foundations with concrete slab-on-grade floors. The existing structures are generally surrounded by asphaltic concrete (AC) pavements, with isolated areas of Portland cement concrete (PCC), aggregate base pavements, and exposed soils in the south-central portion of the site. The existing pavements are in poor condition, with moderate to severe cracking throughout. Two medium-size trees are present in the south-central region of the site.

Detailed topographic information was not available at the time of this report. Based on elevations obtained from Google Earth and visual observations made at the time of the subsurface investigation, the site slopes gently to the south-southeast at a gradient of less than 1 percent.

### Proposed Development

A preliminary site plan, identified as Scheme 01 and prepared by RGA, for the proposed development was provided to our office by the client. Based on this plan, the subject site will be developed with a 259,189± ft<sup>2</sup> warehouse, located in the north-central region of the site. Dock-high doors will be constructed along a portion of the south building wall. The proposed building is expected to be surrounded by AC pavements in the parking and drive areas, PCC pavements in the loading dock area, and concrete flatwork and landscaped planters throughout the site.

We understand that the proposed development will include on-site stormwater infiltration. Based on our experience with similar projects in the area, the infiltration systems are expected to be below-grade chambers. The bottoms of the infiltration systems are expected to be 10 to 12± feet below the existing site grades.

### Concurrent Study

SCG concurrently conducted a geotechnical investigation at the subject site, referenced above. As a part of this study, five (5) borings (identified as Boring Nos. B-1 through B-5) were advanced to depths of 20 to 30± feet below the existing site grades.

AC pavements were encountered at the ground surface of Boring Nos. B-1 through B-4. The pavement sections generally consist of 0 to 2½± inches of AC, underlain by 1 to 3½± inches of aggregate base. Artificial fill soils were encountered beneath the existing pavements at Boring Nos. B-1 through B-4 and at the ground surface at Boring No. B-5, extending to depths of 2½ to 6½± feet below the existing site grades. The fill soils generally consist of loose to medium dense sands and silty sands, with occasional dense silty sands. Native alluvium was encountered beneath the artificial fill soils at all of the boring locations, extending to at least the maximum depth explored of 30± feet. The near-surface alluvium generally consists of loose to medium dense sands and sandy silts, extending to depths of 6½ to 12± feet. At greater depths, the alluvium generally consists of medium dense to dense sands, silty sands and sandy silts. Boring No. B-3 encountered a stratum of dense silty sands at a depth of 14½ to 17± feet. Boring No. B-5 encountered a stratum of loose well-graded sands at a depth of 12 to 17± feet.

## Groundwater

Free water was not encountered during the drilling of any of the borings. Based on the lack of any water within the borings, and the moisture contents of the recovered soil samples, the static groundwater table is considered to have existed at a depth in excess of 30± feet at the time of the subsurface exploration.

As part of our research, we reviewed available groundwater data in order to determine groundwater levels for the site. Water level data was obtained from the California Department of Water Resources Water Data Library website, <https://wdl.water.ca.gov/waterdatalibrary/>. The nearest monitoring well on record (identified as State Well Number: 01S06W29H001S) is located 3,400± feet southeast of the project site. Water level readings within this monitoring well indicate a high groundwater level of 277± feet below the ground surface in April 2019.

## Subsurface Exploration

### Scope of Exploration

The subsurface exploration conducted for the infiltration testing consisted of six (6) infiltration test borings, advanced to depths of 10 to 12± feet below the existing site grades. The infiltration borings were advanced using a truck-mounted drilling rig, equipped with 8-inch-diameter hollow-stem augers and were logged during drilling by a member of our staff. The approximate locations of the infiltration test borings (identified as I-1 through I-6) are indicated on the Infiltration Test Location Plan, enclosed as Plate 2 of this report.

Upon the completion of the infiltration borings, the bottom of each test boring was covered with 2± inches of clean ¾-inch gravel. A sufficient length of 3-inch-diameter perforated PVC casing was then placed into each test hole so that the PVC casing extended from the bottom of the test hole to the ground surface. Clean ¾-inch gravel was then installed in the annulus surrounding the PVC casing.

### Geotechnical Conditions

AC pavements were encountered at the ground surface of Infiltration Test Nos. I-1 through I-5. The pavement sections generally consist of 0 to 6± inches of AC, underlain by 0 to 9± inches of aggregate base. An 8±-inch-thick PCC section was encountered at the ground surface at Infiltration Test Nos. I-6. Steel reinforcement was not encountered at this location. Artificial fill soils were encountered beneath the existing pavements at all of the infiltration boring location, extending to depths of 3 to 4± feet below the existing site grades. The fill soils generally consist of medium dense to dense silty sands, with occasional loose sands. The fill soils possess a disturbed mottled appearance resulting in their classification as artificial fill. Native alluvial soils were encountered beneath the fill soils at all of the infiltration boring locations, extending to at least the maximum depth explored of 12± feet. The alluvium generally consists of loose sands, silty sands and silty sands to sandy silts, with occasional medium dense silty sands. The Boring Logs, which illustrate the conditions encountered at the boring locations, are included with this report.

## Infiltration Testing

As previously mentioned, the infiltration testing was performed in general accordance with the guidelines published in Riverside County – Low Impact Development BMP Design Handbook – Section 2.3 of Appendix A, which apply to San Bernardino County.

### Pre-soaking

In accordance with the county infiltration standards for sandy soils, all infiltration test borings were pre-soaked 2 hours prior to the infiltration testing or until all of the water had percolated through the test holes. The pre-soaking process consisted of filling test borings by inverting a full 5-gallon bottle of clear water supported over each hole so that the water flow into the hole holds **constant at a level at least 5 times the hole's radius above the gravel at the bottom of each hole**. Pre-soaking was completed after all of the water had percolated through the test holes.

### Infiltration Testing

Following the pre-soaking process of the infiltration test borings, SCG performed the infiltration testing. **Each test hole was filled with water to a depth of at least 5 times the hole's radius above the gravel at the bottom of the test holes.** In accordance with the Riverside County guidelines, **since "sandy soils" (where 6 inches of water infiltrated into the surrounding soils in less than 25 minutes for two consecutive readings)** were encountered at the bottom of the infiltration test borings, readings were taken at 10-minute intervals for a total of 1 hour. After each reading, water was added to the borings so that the depth of the water was at least 5 times the radius of the hole. The water level readings are presented on the spreadsheets enclosed with this report. The infiltration rates for each of the timed intervals are also tabulated on the spreadsheets.

The infiltration rates from the tests are tabulated in inches per hour. In accordance with the typically accepted practice, it is recommended that the most conservative reading from the latter part of the infiltration tests be used as the design infiltration rate. The rates are summarized below:

<u>Infiltration Test No.</u>	<u>Depth (feet)</u>	<u>Soil Description</u>	<u>Infiltration Rate (inches/hour)</u>
I-1	10	Silty fine Sand, little medium Sand	3.9
I-2	12	Silty fine to medium Sand	3.0
I-3	12	Silty fine to medium Sand, trace coarse Sand	4.6
I-4	12	Silty fine Sand to fine Sandy Silt, trace medium Sand	3.1
I-5	10	Silty fine Sand, little medium Sand, trace fine Gravel	3.5
I-6	10	Silty fine Sand to fine Sandy Silt, trace medium Sand, trace fine Gravel	3.0

## Laboratory Testing

### Moisture Content

The moisture contents for the recovered soil samples within the borings were determined in accordance with ASTM D-2216 and are expressed as a percentage of the dry weight. These test results are presented on the Boring Logs.

### Grain Size Analysis

The grain size distribution of selected soils collected from the base of each infiltration test boring have been determined using a range of wire mesh screens. These tests were performed in general accordance with ASTM D-422 and/or ASTM D-1140. The weight of the portion of the sample retained on each screen is recorded and the percentage finer or coarser of the total weight is calculated. The results of these tests are presented on Plates C-1 through C-6 of this report.

### Design Recommendations

Six (6) infiltration tests were performed at the subject site. As noted above, the infiltration rates at these locations vary from 3.0 to 4.6 inches per hour. The major factor affecting the difference in infiltration rates at the infiltration test locations is the presence of silt in the soils at the tested depths. Based on the infiltration test results, we recommend an infiltration rate of 3.0 inches per hour be used in the design of the infiltration systems, if the bottom of the infiltration systems extend between 10 to 12± feet below the existing site grades.

The design of the storm water infiltration systems should be performed by the project civil engineer, in accordance with the City of Ontario and/or County of San Bernardino guidelines. It is recommended that the system be constructed so as to facilitate removal of silt and clay, or other deleterious materials from any water that may enter the systems. The presence of such materials would decrease the effective infiltration rates. It is recommended that the project civil engineer apply an appropriate factor of safety. The infiltration rates recommended above is based on the assumption that only clean water will be introduced to the subsurface profile. Any fines, debris, or organic materials could significantly impact the infiltration rate. It should be noted that the recommended infiltration rates are based on infiltration testing at six (6) discrete locations and that the overall infiltration rates of the proposed infiltration systems could vary considerably.

### Infiltration Rate Considerations

The infiltration rates presented herein was determined in accordance with the San Bernardino County guidelines and are considered valid only for the time and place of the actual test. Varying subsurface conditions will exist in other areas of the site, which could alter the recommended infiltration rates presented above. The infiltration rates will decline over time between maintenance cycles as silt or clay particles accumulate on the BMP surface. The infiltration rate is highly dependent upon a number of factors, including density, silt and clay content, grainsize distribution throughout the range of particle sizes, and particle shape. Small changes in these factors can cause large changes in the infiltration rates.

Infiltration rates are based on unsaturated flow. As water is introduced into soils by infiltration, the soils become saturated and the wetting front advances from the unsaturated zone to the saturated zone. Once the soils become saturated, infiltration rates become zero, and water can only move through soils by hydraulic conductivity at a rate determined by pressure head and soil permeability. Changes in soil moisture content will affect the infiltration rate. Infiltration rates should be expected to decrease until the soils become saturated. Soil permeability values will then govern groundwater movement. Permeability values may be on the order of 10 to 20 times less than infiltration rates. The system designer should incorporate adequate factors of safety and allow for overflow design into appropriate traditional storm drain systems, which would transport storm water off-site.

### Construction Considerations

The infiltration rates presented in this report are specific to the tested locations and tested depths. Infiltration rates can be significantly reduced if the soils are exposed to excessive disturbance or compaction during construction. Compaction of the soils at the bottom of the infiltration system can significantly reduce the infiltration ability of the basins. Therefore, the subgrade soils within proposed infiltration system areas should not be over-excavated, undercut or compacted in any significant manner. It is recommended that a note to this effect be added to the project plans and/or specifications.

We recommend that a representative from the geotechnical engineer be on-site during the construction of the proposed infiltration systems to identify the soil classification at the base of each system. It should be confirmed that the soils at the base of the proposed infiltration systems correspond with those presented in this report to ensure that the performance of the systems will be consistent with the rates reported herein.

We recommend that scrapers and other rubber-tired heavy equipment not be operated on the basin bottom, or at levels lower than 2 feet above the bottom of the system, particularly within basins. As such, the bottom 24 inches of the infiltration systems should be excavated with non-rubber-tired equipment, such as excavators.

### Basin Maintenance

The proposed project may include infiltration basins. Water flowing into these basins will carry some level of sediment. Wind-blown sediments and erosion of the basin side walls will also contribute to sediment deposition at the bottom of the basin. This layer has the potential to significantly reduce the infiltration rate of the basin subgrade soils. Therefore, a formal basin maintenance program should be established to ensure that these silt and clay deposits are removed from the basin on a regular basis. Appropriate vegetation on the basin sidewalls and bottom may reduce erosion and sediment deposition.

Basin maintenance should also include measures to prevent animal burrows, and to repair any burrows or damage caused by such. Animal burrows in the basin sidewalls can significantly increase the risk of erosion and piping failures.

## Location of Infiltration Systems

The use of on-site storm water infiltration systems carries a risk of creating adverse geotechnical conditions. Increasing the moisture content of the soil can cause the soil to lose internal shear strength and increase its compressibility, resulting in a change in the designed engineering properties. Overlying structures and pavements in the infiltration area could potentially be damaged due to saturation of the subgrade soils. The proposed infiltration systems for this site should be located at least 25 feet away from any structures, including retaining walls. Even with this provision of locating the infiltration system at least 25 feet from the building(s), it is possible that infiltrating water into the subsurface soils could have an adverse effect on the proposed or existing structures. It should also be noted that utility trenches which happen to collect storm water can also serve as conduits to transmit storm water toward the structure, depending on the slope of the utility trench. Therefore, consideration should also be given to the proposed locations of underground utilities which may pass near the proposed infiltration system.

The infiltration system designer should also give special consideration to the effect that the proposed infiltration systems may have on nearby subterranean structures, open excavations, or descending slopes. In particular, infiltration systems should not be located near the crest of descending slopes, particularly where the slopes are comprised of granular soils. Such systems will require specialized design and analysis to evaluate the potential for slope instability, piping failures and other phenomena that typically apply to earthen dam design. This type of analysis is beyond the scope of this infiltration test report, but these factors should be considered by the infiltration system designer when locating the infiltration systems.

## General Comments

This report has been prepared as an instrument of service for use by the client in order to aid in the evaluation of this property and to assist the architects and engineers in the design and preparation of the project plans and specifications. This report may be provided to the contractor(s) and other design consultants to disclose information relative to the project. However, this report is not intended to be utilized as a specification in and of itself, without appropriate interpretation by the project architect, structural engineer, and/or civil engineer. The design of the proposed storm water infiltration system is the responsibility of the civil engineer. The role of the geotechnical engineer is limited to determination of infiltration rate only. By using the design infiltration rate contained herein, the civil engineer agrees to indemnify, defend, and hold harmless the geotechnical engineer for all aspects of the design and performance of the proposed storm water infiltration system. The reproduction and distribution of this report must be authorized by the client and Southern California Geotechnical, Inc. Furthermore, any reliance **on this report by an unauthorized third party is at such party's sole risk, and we accept no** responsibility for damage or loss which may occur.

The analysis of this site was based on a subsurface profile interpolated from limited discrete soil samples. While the materials encountered in the project area are considered to be representative of the total area, some variations should be expected between boring locations and testing depths. If the conditions encountered during construction vary significantly from those detailed herein, we should be contacted immediately to determine if the conditions alter the recommendations contained herein.

This report has been based on assumed or provided characteristics of the proposed development. It is recommended that the owner, client, architect, structural engineer, and civil engineer carefully review these assumptions to ensure that they are consistent with the characteristics of the proposed development. If discrepancies exist, they should be brought to our attention to verify that they do not affect the conclusions and recommendations contained herein. We also recommend that the project plans and specifications be submitted to our office for review to verify that our recommendations have been correctly interpreted. The analysis, conclusions, and recommendations contained within this report have been promulgated in accordance with generally accepted professional geotechnical engineering practice. No other warranty is implied or expressed.

### Closure

We sincerely appreciate the opportunity to be of service on this project. We look forward to providing additional consulting services during the course of the project. If we may be of further assistance in any manner, please contact our office.

Respectfully Submitted,

### **SOUTHERN CALIFORNIA GEOTECHNICAL, INC.**



Joseph Lozano Leon  
Staff Engineer



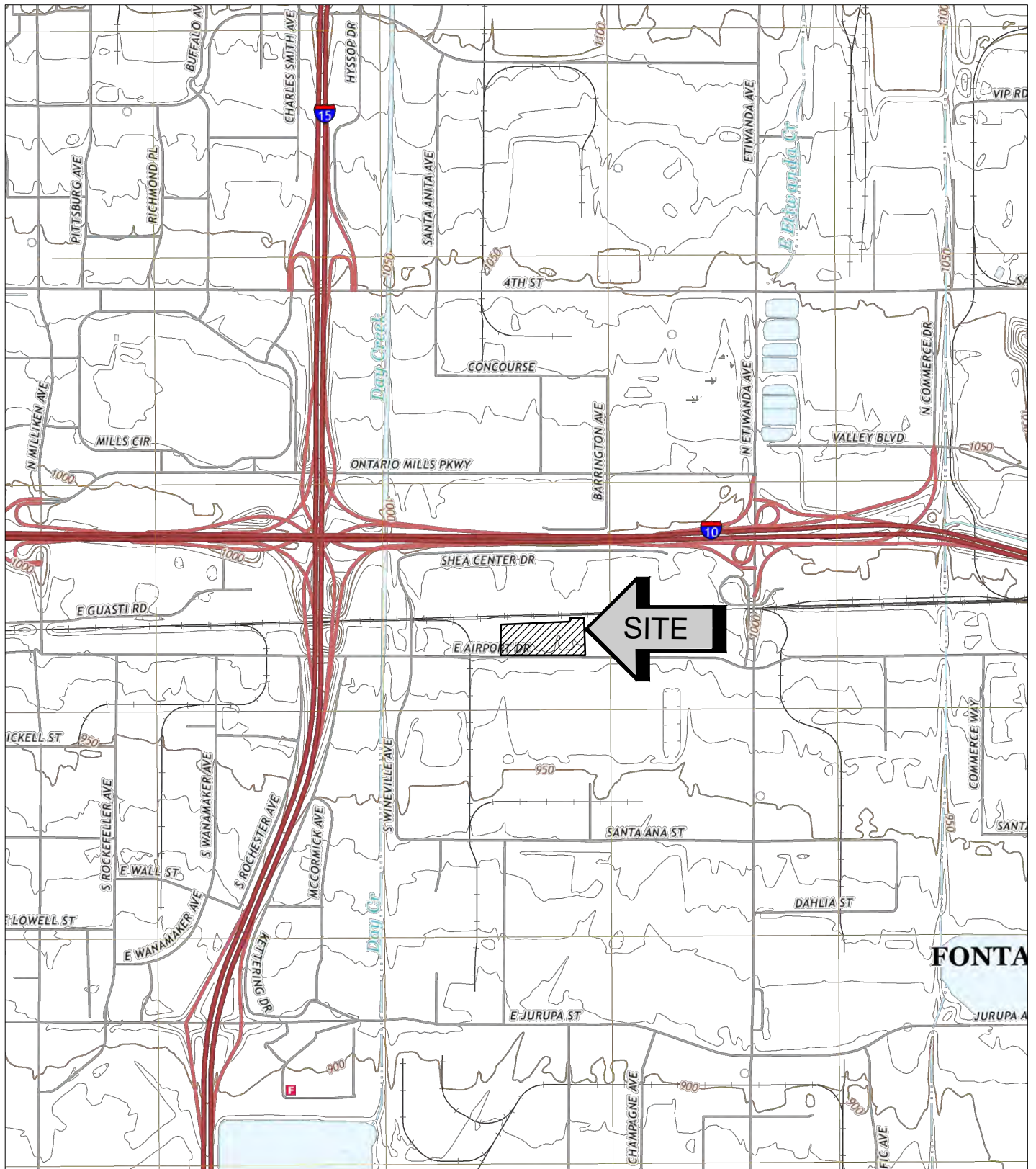
Robert G. Trazo, GE 2655  
Principal Engineer



Distribution: (1) Addressee

Enclosures: Plate 1 - Site Location Map  
Plate 2 - Infiltration Test Location Plan  
Boring Log Legend and Logs (8 pages)  
Infiltration Test Results Spreadsheets (6 pages)  
Grain Size Distribution Graphs (6 pages)

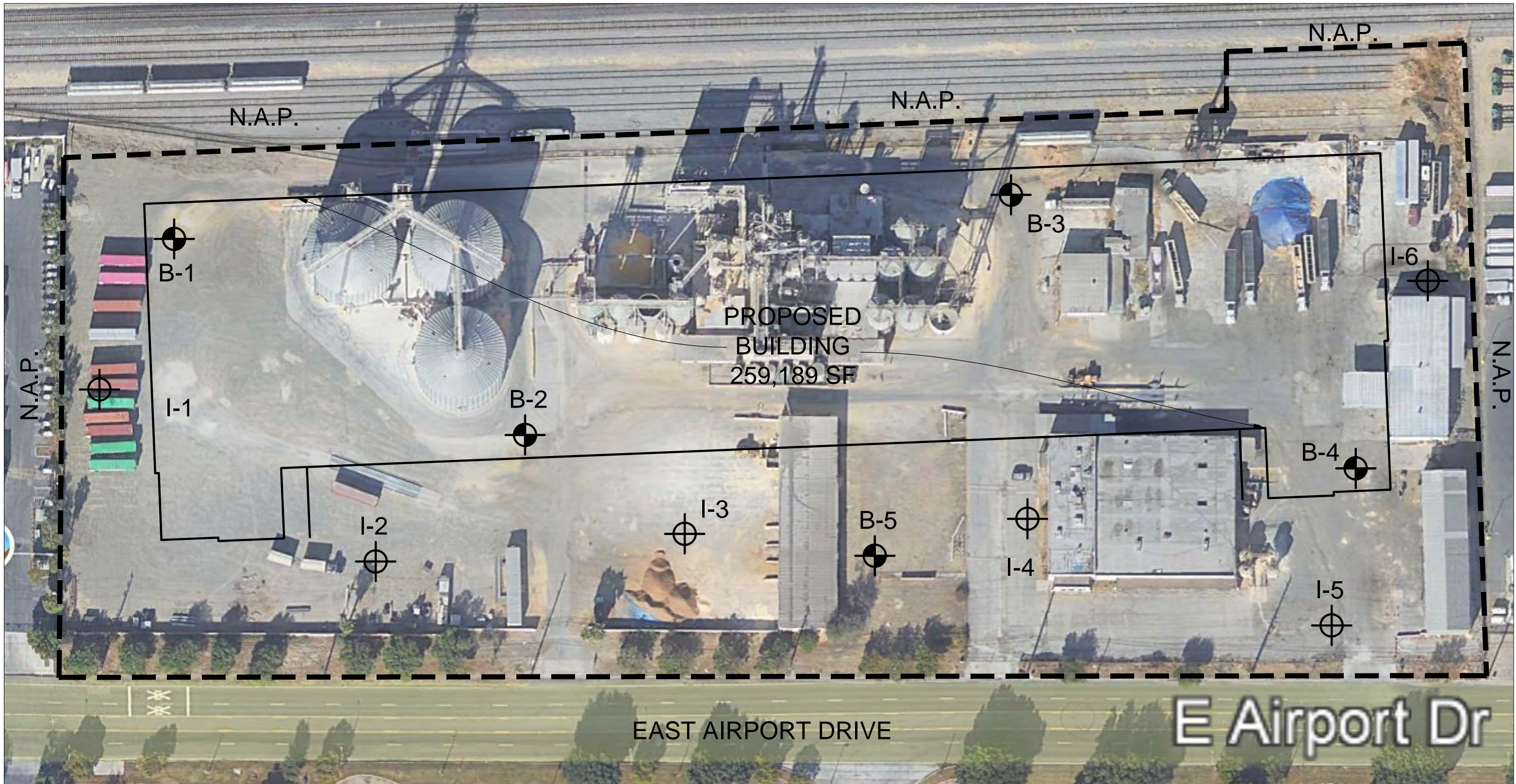







SOURCE: USGS TOPOGRAPHIC MAP OF THE GUASTI QUADRANGLE, SAN BERNARDINO COUNTY, CALIFORNIA, 2021.



<b>SITE LOCATION MAP</b>	
PROPOSED WAREHOUSE	
ONTARIO, CALIFORNIA	
SCALE: 1" = 2000'	 <b>SOUTHERN CALIFORNIA GEOTECHNICAL</b>
DRAWN: JLL	
CHKD: RGT	
SCG PROJECT 22G128-2	
PLATE 1	



**GEOTECHNICAL LEGEND**

-  APPROXIMATE INFILTRATION TEST LOCATION
-  APPROXIMATE BORING LOCATION FROM CONCURRENT STUDY (SCG PROJECT NO. 22G128-1)
-  PROPERTY LINE



NOTE: PRELIMINARY SITE PLAN PREPARED BY RGA.  
AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH.

**INFILTRATION TEST LOCATION PLAN**

PROPOSED WAREHOUSE  
ONTARIO, CALIFORNIA

SCALE: 1" = 80'

DRAWN: JLL  
CHKD: RGT






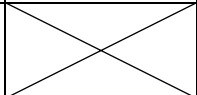
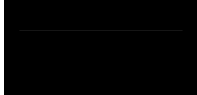

SCG PROJECT  
22G128-2

PLATE 2



**SOUTHERN CALIFORNIA GEOTECHNICAL**

# BORING LOG LEGEND

SAMPLE TYPE	GRAPHICAL SYMBOL	SAMPLE DESCRIPTION
AUGER		SAMPLE COLLECTED FROM AUGER CUTTINGS, NO FIELD MEASUREMENT OF SOIL STRENGTH. (DISTURBED)
CORE		ROCK CORE SAMPLE: TYPICALLY TAKEN WITH A DIAMOND-TIPPED CORE BARREL. TYPICALLY USED ONLY IN HIGHLY CONSOLIDATED BEDROCK.
GRAB		SOIL SAMPLE TAKEN WITH NO SPECIALIZED EQUIPMENT, SUCH AS FROM A STOCKPILE OR THE GROUND SURFACE. (DISTURBED)
CS		CALIFORNIA SAMPLER: 2-1/2 INCH I.D. SPLIT BARREL SAMPLER, LINED WITH 1-INCH HIGH BRASS RINGS. DRIVEN WITH SPT HAMMER. (RELATIVELY UNDISTURBED)
NSR		NO RECOVERY: THE SAMPLING ATTEMPT DID NOT RESULT IN RECOVERY OF ANY SIGNIFICANT SOIL OR ROCK MATERIAL.
SPT		STANDARD PENETRATION TEST: SAMPLER IS A 1.4 INCH INSIDE DIAMETER SPLIT BARREL, DRIVEN 18 INCHES WITH THE SPT HAMMER. (DISTURBED)
SH		SHELBY TUBE: TAKEN WITH A THIN WALL SAMPLE TUBE, PUSHED INTO THE SOIL AND THEN EXTRACTED. (UNDISTURBED)
VANE		VANE SHEAR TEST: SOIL STRENGTH OBTAINED USING A 4 BLADED SHEAR DEVICE. TYPICALLY USED IN SOFT CLAYS-NO SAMPLE RECOVERED.

## COLUMN DESCRIPTIONS

### DEPTH:

Distance in feet below the ground surface.

### SAMPLE:

Sample Type as depicted above.

### BLOW COUNT:

Number of blows required to advance the sampler 12 inches using a 140 lb hammer with a 30-inch drop. 50/3" indicates penetration refusal (>50 blows) at 3 inches. WH indicates that the weight of the hammer was sufficient to push the sampler 6 inches or more.

### POCKET PEN.:

Approximate shear strength of a cohesive soil sample as measured by pocket penetrometer.

### GRAPHIC LOG:

Graphic Soil Symbol as depicted on the following page.

### DRY DENSITY:

Dry density of an undisturbed or relatively undisturbed sample in lbs/ft<sup>3</sup>.

### MOISTURE CONTENT:

Moisture content of a soil sample, expressed as a percentage of the dry weight.

### LIQUID LIMIT:

The moisture content above which a soil behaves as a liquid.

### PLASTIC LIMIT:

The moisture content above which a soil behaves as a plastic.

### PASSING #200 SIEVE:

The percentage of the sample finer than the #200 standard sieve.

### UNCONFINED SHEAR:

The shear strength of a cohesive soil sample, as measured in the unconfined state.

# SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS	
			GRAPH	LETTER		
<p><b>COARSE GRAINED SOILS</b></p> <p>MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE</p>	<p><b>GRAVEL AND GRAVELLY SOILS</b></p>	<p>CLEAN GRAVELS</p> <p>(LITTLE OR NO FINES)</p>		<b>GW</b>	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES	
		<p>MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE</p>	<p>GRAVELS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		<b>GP</b>	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
			<p>GRAVELS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		<b>GM</b>	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
		<p>MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE</p>	<p>CLEAN SANDS</p> <p>(LITTLE OR NO FINES)</p>		<b>SW</b>	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
	<p>MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE</p>		<p>SANDS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		<b>SP</b>	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		<p>SANDS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		<b>SM</b>	SILTY SANDS, SAND - SILT MIXTURES	
	<p>SANDS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		<b>SC</b>	CLAYEY SANDS, SAND - CLAY MIXTURES		
	<p><b>FINE GRAINED SOILS</b></p> <p>MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE</p>	<p><b>SILTS AND CLAYS</b></p> <p>LIQUID LIMIT LESS THAN 50</p>		<b>ML</b>	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY	
				<b>CL</b>	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS	
				<b>OL</b>	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	
<p><b>SILTS AND CLAYS</b></p> <p>LIQUID LIMIT GREATER THAN 50</p>			<b>MH</b>	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS		
			<b>CH</b>	INORGANIC CLAYS OF HIGH PLASTICITY		
			<b>OH</b>	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS		
<p><b>HIGHLY ORGANIC SOILS</b></p>				<b>PT</b>	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS	

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS



JOB NO.: 22G128-2	DRILLING DATE: 2/10/22	WATER DEPTH: Dry
PROJECT: Proposed Warehouse	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: ---
LOCATION: Ontario, California	LOGGED BY: Joseph Lozano Leon	READING TAKEN: At Completion

FIELD RESULTS				GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)			DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	
SURFACE ELEVATION: --- MSL												
				8± inches Aggregate Base								
	X	26		FILL: Gray Brown Silty fine to coarse Sand, little fine Gravel, medium dense-moist		10						
5	X	7		ALLUVIUM: Light Brown to Brown Silty fine Sand, loose-damp		4						
	X	9		@ 8½ feet, little medium Sand		5		31				
10				Boring Terminated at 10'								

TBL 22G128-2.GPJ\_SOCALGEO.GDT 3/9/22



JOB NO.: 22G128-2	DRILLING DATE: 2/10/22	WATER DEPTH: Dry
PROJECT: Proposed Warehouse	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: ---
LOCATION: Ontario, California	LOGGED BY: Joseph Lozano Leon	READING TAKEN: At Completion

FIELD RESULTS				GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)			DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	
SURFACE ELEVATION: --- MSL												
				5 1/2± inches Aggregate Base								
		30		FILL: Brown Silty fine Sand, little medium Sand, trace coarse Sand, trace fine Gravel, dense-dry to damp		2						
5		4		ALLUVIUM: Gray Brown Silty fine Sand, little medium Sand, trace coarse Sand, loose-damp		6						
		6		Brown Silty fine Sand, trace medium Sand, loose-damp to moist		7						
10		23		Brown Silty fine to medium Sand, medium dense-moist		8			33			
Boring Terminated at 12'												

TBL 22G128-2.GPJ\_SOCALGEO.GDT 3/9/22



JOB NO.: 22G128-2	DRILLING DATE: 2/10/22	WATER DEPTH: Dry
PROJECT: Proposed Warehouse	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: ---
LOCATION: Ontario, California	LOGGED BY: Joseph Lozano Leon	READING TAKEN: At Completion

FIELD RESULTS				GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)			DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	
SURFACE ELEVATION: --- MSL												
					6± inches Asphaltic Concrete							
		8			<u>FILL</u> : Brown fine to medium Sand, little Silt, loose-damp to moist		7					
5		4			<u>ALLUVIUM</u> : Brown fine to medium Sand, little Silt, loose-damp		5					
		7					5					
10		6			Brown to Dark Brown Silty fine to medium Sand, trace coarse Sand, loose-damp to moist		7		20			
					Boring Terminated at 12'							

TBL 22G128-2.GPJ\_SOCALGEO.GDT 3/9/22



JOB NO.: 22G128-2	DRILLING DATE: 2/10/22	WATER DEPTH: Dry
PROJECT: Proposed Warehouse	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: ---
LOCATION: Ontario, California	LOGGED BY: Joseph Lozano Leon	READING TAKEN: At Completion






FIELD RESULTS				GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)			DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	
SURFACE ELEVATION: --- MSL												
					3± inches Asphaltic Concrete, 9± inches of Aggregate Base							
	X	19			<u>FILL</u> : Gray Brown Silty fine to medium Sand, trace coarse Sand, medium dense-damp	5						
5	X	4			<u>ALLUVIUM</u> : Gray Brown Silty fine Sand, little medium Sand, loose, damp to moist	7						
	X	9				7						
10	X	6			Gray Brown Silty fine Sand to fine Sandy Silt, trace medium Sand, loose-very moist	13			52			
					Boring Terminated at 12'							

TBL 22G128-2.GPJ\_SOCALGEO.GDT 3/9/22





JOB NO.: 22G128-2	DRILLING DATE: 2/10/22	WATER DEPTH: Dry
PROJECT: Proposed Warehouse	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: ---
LOCATION: Ontario, California	LOGGED BY: Joseph Lozano Leon	READING TAKEN: At Completion

FIELD RESULTS				GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS					COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)			DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	
SURFACE ELEVATION: --- MSL											
					2½± inches Asphaltic Concrete, 3½± inches of Aggregate Base						
		12			FILL: Brown Silty fine Sand, trace to little medium Sand, trace coarse Sand, medium dense-moist	8					
5		4			ALLUVIUM: Brown Silty fine Sand, trace to little medium Sand, loose-damp	6					
		9			Gray Brown to Dark Gray Brown Silty fine Sand to fine Sandy Silt, loose-very moist	14					
10					Gray Brown Silty fine Sand, little medium Sand, trace fine Gravel, loose-moist	9			24		
Boring Terminated at 10'											

TBL 22G128-2.GPJ\_SOCALGEO.GDT 3/9/22



JOB NO.: 22G128-2	DRILLING DATE: 2/10/22	WATER DEPTH: Dry
PROJECT: Proposed Warehouse	DRILLING METHOD: Hollow Stem Auger	CAVE DEPTH: ---
LOCATION: Ontario, California	LOGGED BY: Joseph Lozano Leon	READING TAKEN: At Completion

FIELD RESULTS				GRAPHIC LOG	DESCRIPTION	LABORATORY RESULTS						COMMENTS
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)			DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	
SURFACE ELEVATION: --- MSL												
				8± inches Portland Cement Concrete								
	X	43		FILL: Gray Brown Silty fine Sand, little medium Sand, trace coarse Sand, dense-moist		9						
5	X	8		ALLUVIUM: Gray Brown Silty fine Sand, trace medium Sand, loose-moist		9						
	X	6		Gray Brown Silty fine Sand to fine Sandy Silt, trace medium Sand, trace fine Gravel, loose-very moist		14			43			
10				Boring Terminated at 10'								

TBL 22G128-2.GPJ\_SOCALGEO.GDT 3/9/22

## INFILTRATION CALCULATIONS

Project Name	Proposed Warehouse
Project Location	Ontario, California
Project Number	22G128-2
Engineer	Caleb Brackett

Test Hole Radius	4 (in)
Test Depth	10.20 (ft)

Infiltration Test Hole	I-1
------------------------	-----

Soil Criteria Test							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (in)	Did 6 inches of water seep away in less than 25 minutes?	Sandy Soils or Non-Sandy Soils?
1	Initial	8:28 AM	25.00	8.10	24.00	YES	SANDY SOILS
	Final	8:53 AM		10.10			
2	Initial	8:55 AM	25.00	8.10	24.00	YES	SANDY SOILS
	Final	9:20 AM		10.10			

Test Data							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (ft)	Average Head Height (ft)	Infiltration Rate Q (in/hr)
1	Initial	9:21 AM	10.00	8.20	0.80	1.60	5.43
	Final	9:31 AM		9.00			
2	Initial	9:31 AM	10.00	8.20	0.70	1.65	4.62
	Final	9:41 AM		8.90			
3	Initial	9:41 AM	10.00	8.20	0.60	1.70	3.86
	Final	9:51 AM		8.80			
4	Initial	9:51 AM	10.00	8.30	0.60	1.60	4.08
	Final	10:01 AM		8.90			
5	Initial	10:01 AM	10.00	8.20	0.60	1.70	3.86
	Final	10:11 AM		8.80			
6	Initial	10:11 AM	10.00	8.20	0.60	1.70	3.86
	Final	10:21 AM		8.80			
7	Initial	10:21 AM	10.00	8.20	0.60	1.70	3.86
	Final	10:31 AM		8.80			

Per County Standards, Infiltration Rate calculated as follows:

Where:

$$Q = \frac{\Delta H(60r)}{\Delta t(r + 2H_{avg})}$$

Q = Infiltration Rate (in inches per hour)  
 ΔH = Change in Height (Water Level) over the time interval  
 r = Test Hole (Borehole) Radius  
 Δt = Time Interval  
 H<sub>avg</sub> = Average Head Height over the time interval

### INFILTRATION CALCULATIONS

Project Name	Proposed Warehouse
Project Location	Ontario, California
Project Number	22G128-2
Engineer	Caleb Brackett

Test Hole Radius	4 (in)
Test Depth	12.00 (ft)

Infiltration Test Hole	I-2
------------------------	-----

Soil Criteria Test							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (in)	Did 6 inches of water seep away in less than 25 minutes?	Sandy Soils or Non-Sandy Soils?
1	Initial	7:07 AM	25.00	9.00	24.00	YES	SANDY SOILS
	Final	7:32 AM		11.00			
2	Initial	7:33 AM	25.00	9.00	22.80	YES	SANDY SOILS
	Final	7:58 AM		10.90			

Test Data							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (ft)	Average Head Height (ft)	Infiltration Rate Q (in/hr)
1	Initial	7:58 AM	10.00	9.00	0.80	2.60	3.47
	Final	8:08 AM		9.80			
2	Initial	8:09 AM	10.00	9.00	0.80	2.60	3.47
	Final	8:19 AM		9.80			
3	Initial	8:20 AM	10.00	9.00	0.70	2.65	2.98
	Final	8:30 AM		9.70			
4	Initial	8:30 AM	10.00	9.00	0.80	2.60	3.47
	Final	8:40 AM		9.80			
5	Initial	8:40 AM	10.00	9.00	0.70	2.65	2.98
	Final	8:50 AM		9.70			
6	Initial	8:50 AM	10.00	9.00	0.70	2.65	2.98
	Final	9:00 AM		9.70			

Per County Standards, Infiltration Rate calculated as follows:

Where:

$$Q = \frac{\Delta H(60r)}{\Delta t(r + 2H_{avg})}$$

- Q = Infiltration Rate (in inches per hour)
- ΔH = Change in Height (Water Level) over the time interval
- r = Test Hole (Borehole) Radius
- Δt = Time Interval
- H<sub>avg</sub> = Average Head Height over the time interval

**INFILTRATION CALCULATIONS**

Project Name	Proposed Warehouse
Project Location	Ontario, California
Project Number	22G128-2
Engineer	Sam Bergeland

Test Hole Radius	4 (in)
Test Depth	12.40 (ft)

Infiltration Test Hole	I-3
------------------------	-----

Soil Criteria Test							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (in)	Did 6 inches of water seep away in less than 25 minutes?	Sandy Soils or Non-Sandy Soils?
1	Initial	10:15 AM	25.00	10.40	24.00	YES	SANDY SOILS
	Final	10:40 AM		12.40			
2	Initial	10:42 AM	25.00	10.40	24.00	YES	SANDY SOILS
	Final	11:07 AM		12.40			

Test Data							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (ft)	Average Head Height (ft)	Infiltration Rate Q (in/hr)
1	Initial	11:08 AM	10.00	10.40	0.80	1.60	5.43
	Final	11:18 AM		11.20			
2	Initial	11:20 AM	10.00	10.40	0.90	1.55	6.29
	Final	11:30 AM		11.30			
3	Initial	11:31 AM	10.00	10.40	0.80	1.60	5.43
	Final	11:41 AM		11.20			
4	Initial	11:42 AM	10.00	10.40	0.80	1.60	5.43
	Final	11:52 AM		11.20			
5	Initial	11:55 AM	10.00	10.40	0.70	1.65	4.62
	Final	12:05 PM		11.10			
6	Initial	12:06 PM	10.00	10.40	0.70	1.65	4.62
	Final	12:16 PM		11.10			
7	Initial	12:18 PM	10.00	10.40	0.70	1.65	4.62
	Final	12:28 PM		11.10			
8	Initial	12:29 PM	10.00	10.40	0.70	1.65	4.62
	Final	12:39 PM		11.10			

Per County Standards, Infiltration Rate calculated as follows:

Where:

$$Q = \frac{\Delta H(60r)}{\Delta t(r + 2H_{avg})}$$

- Q = Infiltration Rate (in inches per hour)
- ΔH = Change in Height (Water Level) over the time interval
- r = Test Hole (Borehole) Radius
- Δt = Time Interval
- H<sub>avg</sub> = Average Head Height over the time interval

## INFILTRATION CALCULATIONS

Project Name	Proposed Warehouse
Project Location	Ontario, California
Project Number	22G128-2
Engineer	Sam Bergeland

Test Hole Radius	4 (in)
Test Depth	11.70 (ft)

Infiltration Test Hole	I-4
------------------------	-----

Soil Criteria Test							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (in)	Did 6 inches of water seep away in less than 25 minutes?	Sandy Soils or Non-Sandy Soils?
1	Initial	7:56 AM	25.00	10.00	20.40	YES	SANDY SOILS
	Final	8:21 AM		11.70			
2	Initial	8:22 AM	25.00	10.00	20.40	YES	SANDY SOILS
	Final	8:47 AM		11.70			

Test Data							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (ft)	Average Head Height (ft)	Infiltration Rate Q (in/hr)
1	Initial	8:48 AM	10.00	10.30	0.50	1.15	4.56
	Final	8:58 AM		10.80			
2	Initial	8:59 AM	10.00	10.30	0.40	1.20	3.51
	Final	9:09 AM		10.70			
3	Initial	9:10 AM	10.00	10.30	0.30	1.25	2.54
	Final	9:20 AM		10.60			
4	Initial	9:20 AM	10.00	10.30	0.20	1.30	1.64
	Final	9:30 AM		10.50			
5	Initial	9:31 AM	10.00	10.10	0.50	1.35	3.96
	Final	9:41 AM		10.60			
6	Initial	9:42 AM	10.00	10.10	0.40	1.40	3.06
	Final	9:52 AM		10.50			
7	Initial	9:24 AM	10.00	10.10	0.40	1.40	3.06
	Final	9:34 AM		10.50			

Per County Standards, Infiltration Rate calculated as follows:

Where:

$$Q = \frac{\Delta H(60r)}{\Delta t(r + 2H_{avg})}$$

Q = Infiltration Rate (in inches per hour)  
 ΔH = Change in Height (Water Level) over the time interval  
 r = Test Hole (Borehole) Radius  
 Δt = Time Interval  
 H<sub>avg</sub> = Average Head Height over the time interval

**INFILTRATION CALCULATIONS**

Project Name	Proposed Warehouse
Project Location	Ontario, California
Project Number	22G128-2
Engineer	Sam Bergeland

Test Hole Radius	4 (in)
Test Depth	10.20 (ft)

Infiltration Test Hole I-5

Soil Criteria Test							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (in)	Did 6 inches of water seep away in less than 25 minutes?	Sandy Soils or Non-Sandy Soils?
1	Initial	7:42 AM	25.00	8.10	20.40	YES	SANDY SOILS
	Final	8:07 AM		9.80			
2	Initial	8:08 AM	25.00	8.10	21.60	YES	SANDY SOILS
	Final	8:33 AM		9.90			

Test Data							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (ft)	Average Head Height (ft)	Infiltration Rate Q (in/hr)
1	Initial	8:35 AM	10.00	8.30	0.80	1.50	5.76
	Final	8:45 AM		9.10			
2	Initial	8:46 AM	10.00	8.80	0.60	1.10	5.68
	Final	8:56 AM		9.40			
3	Initial	8:57 AM	10.00	8.80	0.50	1.15	4.56
	Final	9:07 AM		9.30			
4	Initial	9:08 AM	10.00	8.80	0.50	1.15	4.56
	Final	9:18 AM		9.30			
5	Initial	9:19 AM	10.00	8.80	0.40	1.20	3.51
	Final	9:29 AM		9.20			
6	Initial	9:30 AM	10.00	8.80	0.40	1.20	3.51
	Final	9:40 AM		9.20			
7	Initial	9:42 AM	10.00	8.80	0.40	1.20	3.51
	Final	9:52 AM		9.20			
8	Initial	9:53 AM	10.00	8.80	0.40	1.20	3.51
	Final	10:03 AM		9.20			

Per County Standards, Infiltration Rate calculated as follows:

Where:

$$Q = \frac{\Delta H(60r)}{\Delta t(r + 2H_{avg})}$$

- Q = Infiltration Rate (in inches per hour)
- ΔH = Change in Height (Water Level) over the time interval
- r = Test Hole (Borehole) Radius
- Δt = Time Interval
- H<sub>avg</sub> = Average Head Height over the time interval

## INFILTRATION CALCULATIONS

Project Name	Proposed Warehouse
Project Location	Ontario, California
Project Number	22G128-2
Engineer	Sam Bergeland

Test Hole Radius	4 (in)
Test Depth	10.20 (ft)

Infiltration Test Hole	I-6
------------------------	-----

Soil Criteria Test							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (in)	Did 6 inches of water seep away in less than 25 minutes?	Sandy Soils or Non-Sandy Soils?
1	Initial	7:49 AM	25.00	8.10	19.20	YES	SANDY SOILS
	Final	8:14 AM		9.70			
2	Initial	8:15 AM	25.00	8.10	20.40	YES	SANDY SOILS
	Final	8:40 AM		9.80			

Test Data							
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (ft)	Average Head Height (ft)	Infiltration Rate Q (in/hr)
1	Initial	10:17 AM	10.00	8.10	0.60	1.80	3.66
	Final	10:27 AM		8.70			
2	Initial	10:28 AM	10.00	8.10	0.70	1.75	4.38
	Final	10:38 AM		8.80			
3	Initial	10:39 AM	10.00	8.10	0.50	1.85	2.98
	Final	10:49 AM		8.60			
4	Initial	10:50 AM	10.00	8.10	0.60	1.80	3.66
	Final	11:00 AM		8.70			
5	Initial	11:05 AM	10.00	8.10	0.50	1.85	2.98
	Final	11:15 AM		8.60			
6	Initial	11:16 AM	10.00	8.10	0.50	1.85	2.98
	Final	11:26 AM		8.60			
7	Initial	11:27 AM	10.00	8.10	0.50	1.85	2.98
	Final	11:37 AM		8.60			

Per County Standards, Infiltration Rate calculated as follows:

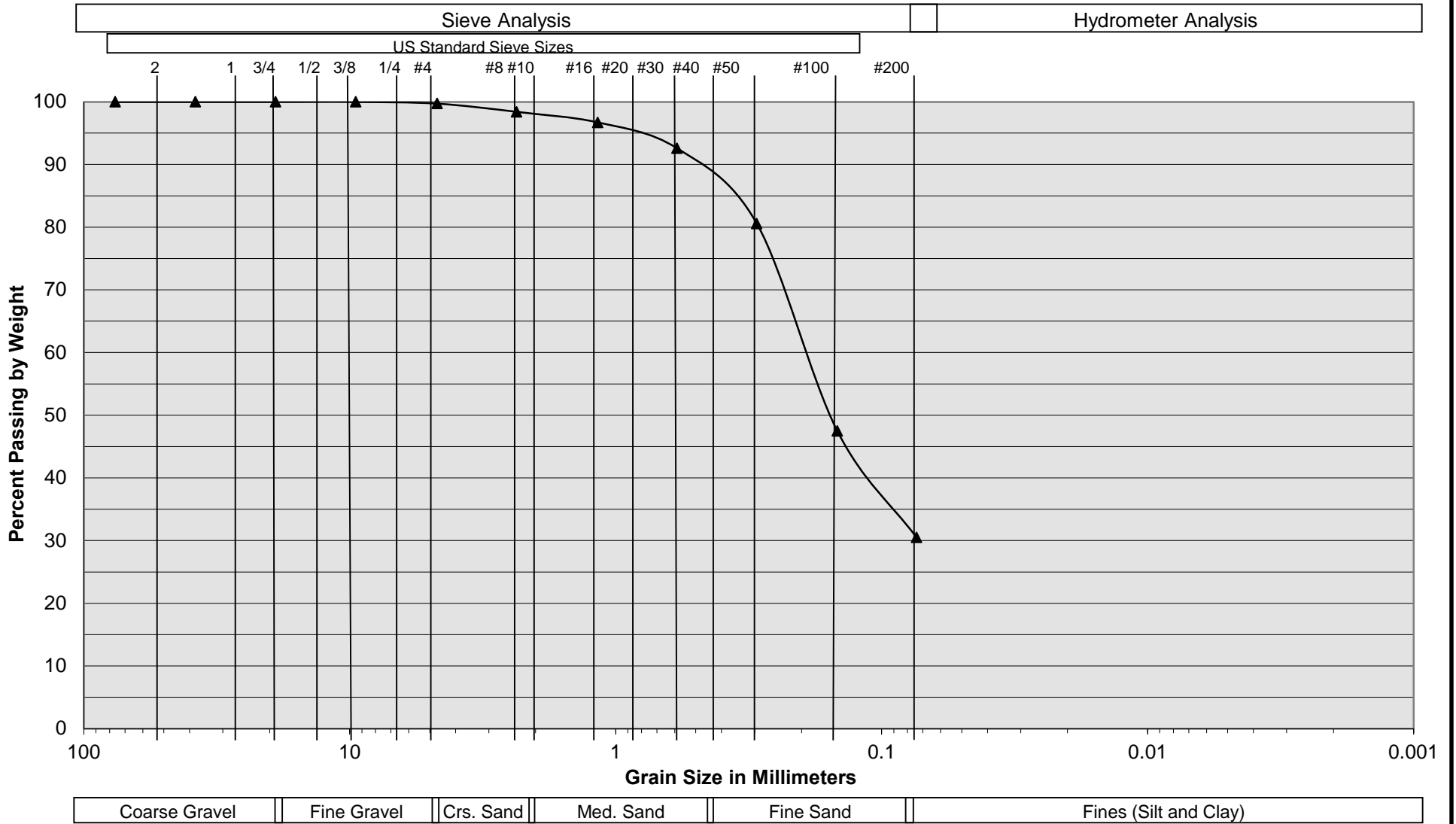
Where:

$$Q = \frac{\Delta H(60r)}{\Delta t(r + 2H_{avg})}$$

Q = Infiltration Rate (in inches per hour)  
 ΔH = Change in Height (Water Level) over the time interval  
 r = Test Hole (Borehole) Radius  
 Δt = Time Interval  
 H<sub>avg</sub> = Average Head Height over the time interval



# Grain Size Distribution



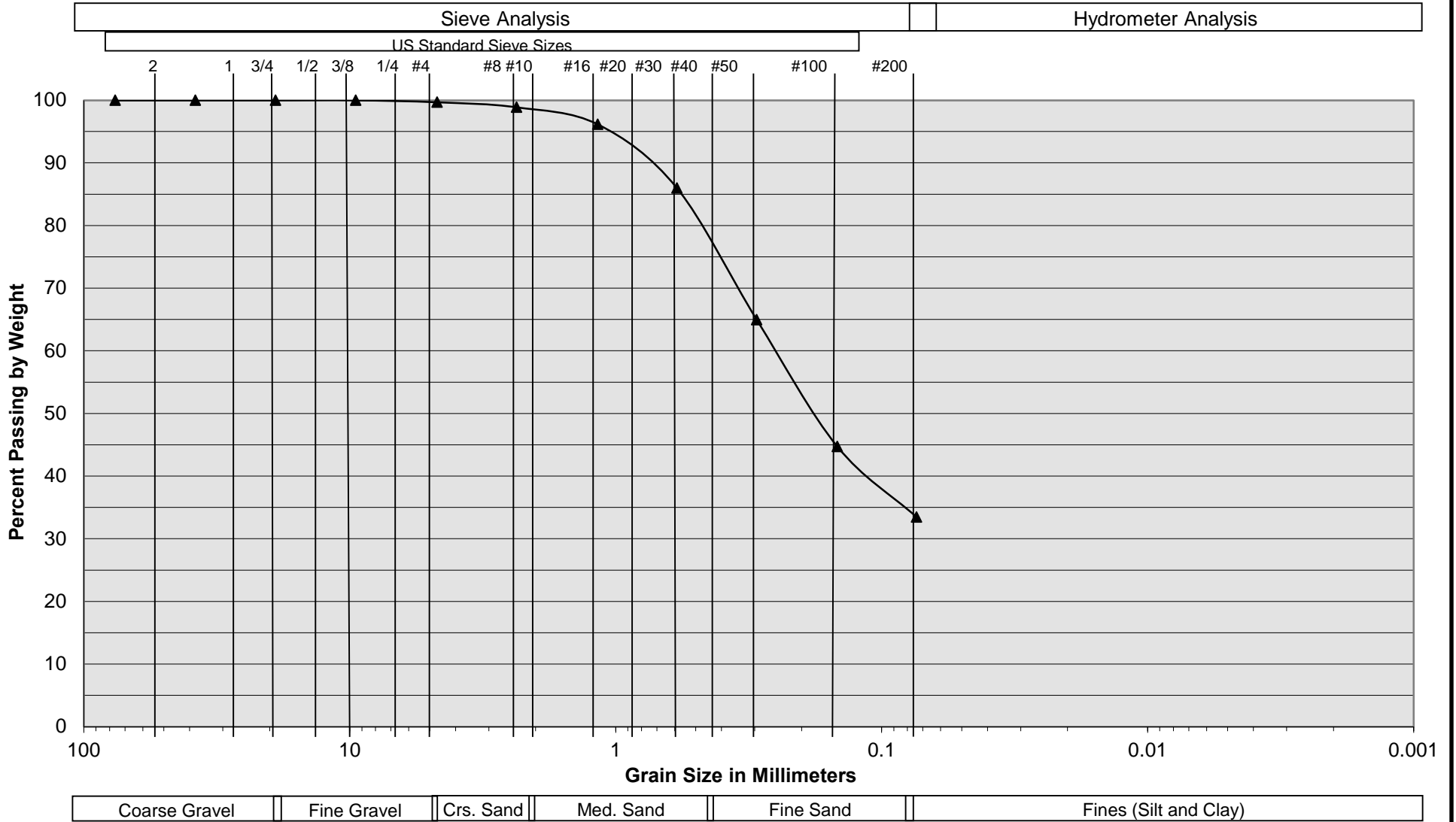
Sample Description	I-1 @ 8½'
Soil Classification	Light Brown to Brown Silty fine Sand, little medium Sand

Proposed Warehouse  
 Ontario, California  
 Project No. 22G128-2  
**PLATE C- 1**



**SOUTHERN CALIFORNIA GEOTECHNICAL**  
*A California Corporation*

# Grain Size Distribution



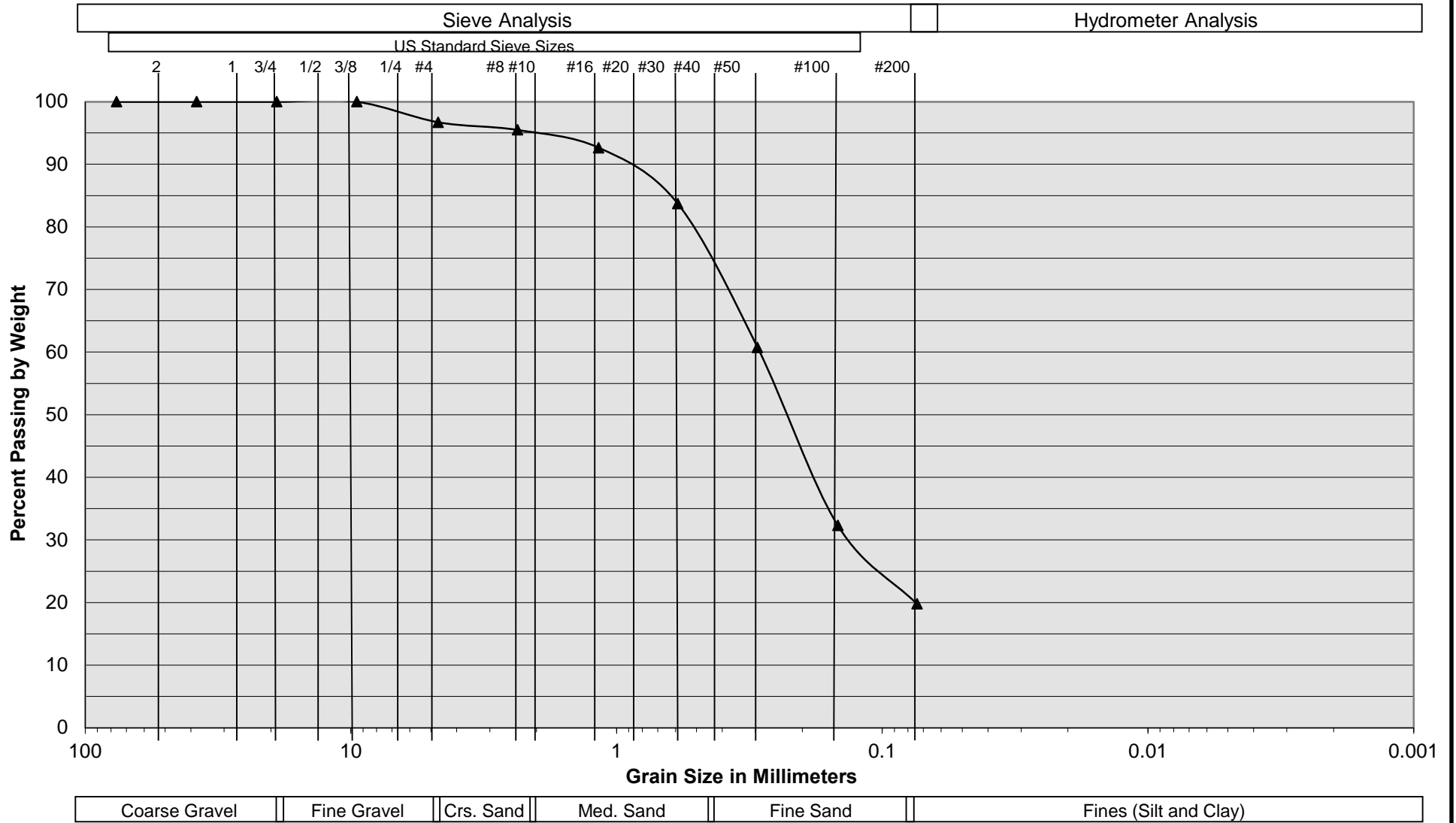
Sample Description	I-2 @ 10½'
Soil Classification	Brown Silty fine to medium Sand

Proposed Warehouse  
 Ontario, California  
 Project No. 22G128-2  
**PLATE C- 2**



**SOUTHERN CALIFORNIA GEOTECHNICAL**  
*A California Corporation*

# Grain Size Distribution



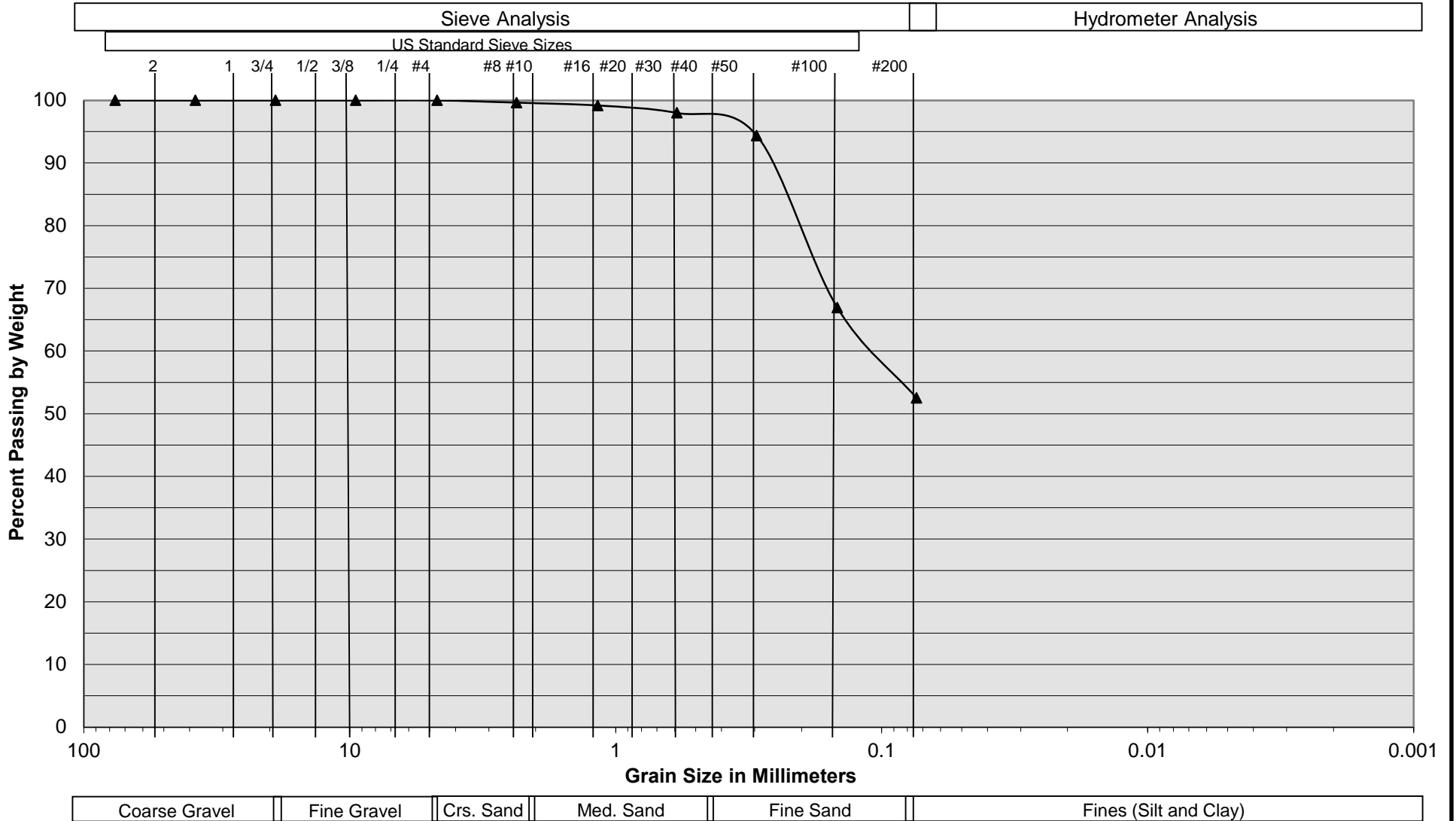
Sample Description	I-3 @ 10½'
Soil Classification	Brown to Dark Brown Silty fine to medium Sand, trace coarse Sand

Proposed Warehouse  
 Ontario, California  
 Project No. 22G128-2  
**PLATE C- 3**



**SOUTHERN CALIFORNIA GEOTECHNICAL**  
A California Corporation

# Grain Size Distribution



Sample Description	I-4 @ 10½'
Soil Classification	Gray Brown Silty fine Sand to fine Sandy Silt, trace medium Sand

Proposed Warehouse  
 Ontario, California  
 Project No. 22G128-2  
**PLATE C- 4**

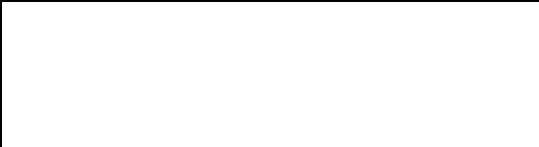


# Grain Size Distribution



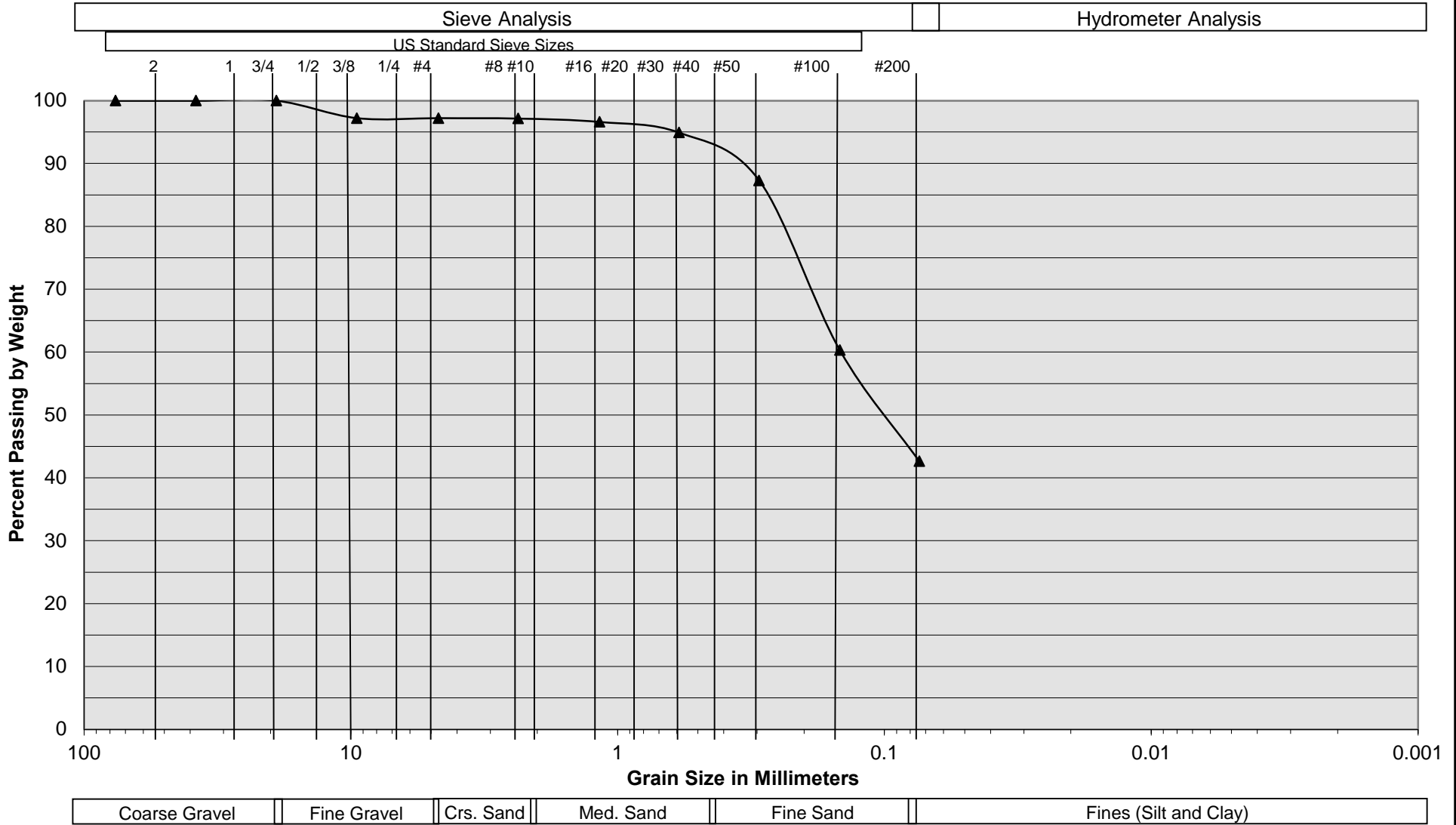
Sample Description	I-5 @ 9½'
Soil Classification	Gray Brown Silty fine Sand, little medium Sand, trace fine Gravel

Proposed Warehouse  
 Ontario, California  
 Project No. 22G128-2  
**PLATE C- 5**



**SOUTHERN CALIFORNIA GEOTECHNICAL**  
A California Corporation

# Grain Size Distribution



Sample Description	I-6 @ 8½'
Soil Classification	Gray Brown Silty fine Sand to fine Sandy Silt, trace medium Sand, trace fine Gravel

Proposed Warehouse  
 Ontario, California  
 Project No. 22G128-2  
**PLATE C- 6**





**SOUTHERN CALIFORNIA GEOTECHNICAL**  
A California Corporation

# APPENDIX G

## PRELIMINARY GRADING PLAN



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# **5355 East Airport Drive**

## **NOISE IMPACT ANALYSIS**

### **CITY OF ONTARIO**

PREPARED BY:

Bill Lawson, PE, INCE  
blawson@urbanxroads.com  
(949) 584-3148

AUGUST 26, 2022

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14539-02 Noise Study





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## **LIST OF ABBREVIATED TERMS**

(1)	Reference
ADT	Average Daily Traffic
ANSI	American National Standards Institute
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dBA	A-weighted decibels
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
Hz	Hertz
INCE	Institute of Noise Control Engineering
$L_{eq}$	Equivalent continuous (average) sound level
$L_{max}$	Maximum level measured over the time interval
$L_{min}$	Minimum level measured over the time interval
OPR	Office of Planning and Research
PPV	Peak particle velocity
Project	5355 East Airport Drive
REMEL	Reference Energy Mean Emission Level
RMS	Root-mean-square
VdB	Vibration Decibels

## EXECUTIVE SUMMARY

Urban Crossroads, Inc. has prepared this noise study to determine the potential noise impacts and the necessary noise mitigation measures, if any, for the proposed 5355 East Airport Drive development (“Project”). The proposed Project is to consist of a 270,337 square foot warehouse. This study has been prepared to satisfy applicable City of Ontario standards and thresholds of significance based on guidance provided by Appendix G of the California Environmental Quality Act (CEQA) Guidelines (1).

The results of this 5355 East Airport Drive Noise Impact Analysis are summarized below based on the significance criteria in Section 4 of this report. Table ES-1 shows the findings of significance for each potential noise and/or vibration impact under CEQA before and after any required mitigation measures.

**TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS**

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
Operational Noise	7	<i>Less Than Significant</i>	-
Construction Noise	8	<i>Less Than Significant</i>	-
Construction Vibration		<i>Less Than Significant</i>	-

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# **1 INTRODUCTION**

This noise analysis has been completed to determine the noise impacts associated with the development of the proposed 5355 East Airport Drive (“Project”). This noise study briefly describes the proposed Project, provides information regarding noise fundamentals, sets out the local regulatory setting, presents the study methods and procedures for noise analysis, and evaluates the future exterior noise environment. In addition, this study includes an analysis of the potential Project-related long-term stationary-source operational noise and short-term construction noise and vibration impacts.

## **1.1 SITE LOCATION**

The proposed Project is located at 5355 East Airport Drive in the City of Ontario as shown on Exhibit 1-A. The Project is located approximately 2.7 miles east of the Ontario International Airport (ONT).

## **1.2 PROJECT DESCRIPTION**

The proposed Project is to consist of a 270,337 square foot warehouse, as shown on Exhibit 1-B. The on-site Project-related noise sources are expected to include: loading dock activity, roof-top air conditioning units, trash enclosure activity, parking lot vehicle movements, and truck movements. This noise analysis is intended to describe noise level impacts associated with the expected typical operational activities at the Project site.



EXHIBIT 1-A: LOCATION MAP

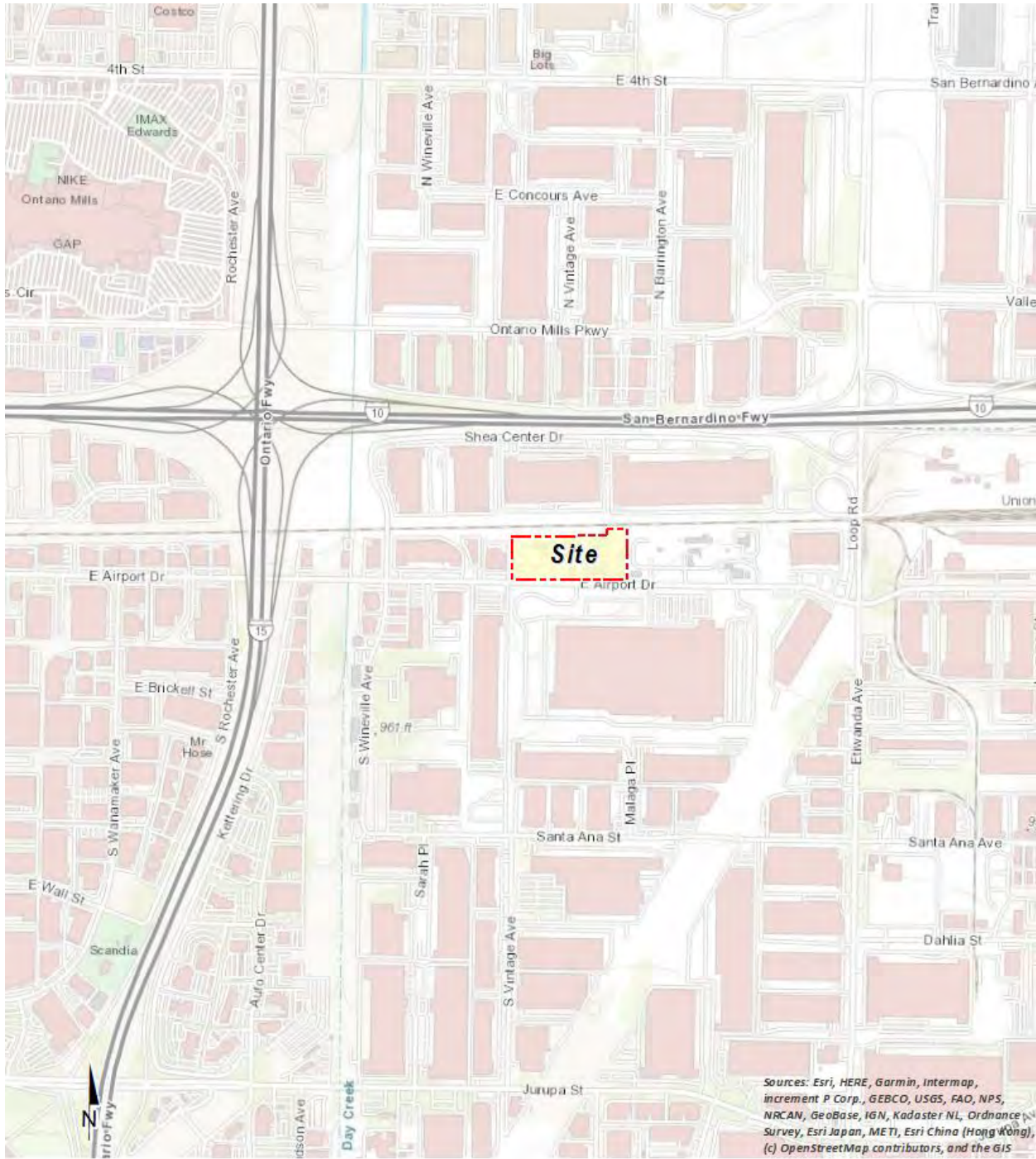


EXHIBIT 1-B: SITE PLAN



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## 2 FUNDAMENTALS

Noise is simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear. Exhibit 2-A presents a summary of the typical noise levels and their subjective loudness and effects that are described in more detail below.

**EXHIBIT 2-A: TYPICAL NOISE LEVELS**

<b>COMMON OUTDOOR ACTIVITIES</b>	<b>COMMON INDOOR ACTIVITIES</b>	<b>A - WEIGHTED SOUND LEVEL dBA</b>	<b>SUBJECTIVE LOUDNESS</b>	<b>EFFECTS OF NOISE</b>
THRESHOLD OF PAIN		140	<b>INTOLERABLE OR DEAFENING</b>	<b>HEARING LOSS</b>
NEAR JET ENGINE		130		
		120		
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100	<b>VERY NOISY</b>	<b>SPEECH INTERFERENCE</b>
GAS LAWN MOWER AT 1m (3 ft)		90		
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80	<b>LOUD</b>	
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	70		
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60	<b>MODERATE</b>	<b>SLEEP DISTURBANCE</b>
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50		
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40		
QUIET SUBURBAN NIGHTTIME	LIBRARY	30	<b>FAINT</b>	<b>NO EFFECT</b>
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20		
	BROADCAST/RECORDING STUDIO	10	<b>VERY FAINT</b>	
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0		

Source: Environmental Protection Agency Office of Noise Abatement and Control, *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (EPA/ONAC 550/9-74-004)* March 1974.

### 2.1 RANGE OF NOISE

Since the range of intensities that the human ear can detect is so large, the scale frequently used to measure intensity is a scale based on multiples of 10, the logarithmic scale. The scale for measuring intensity is the decibel scale. Each interval of 10 decibels indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud. (2) The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA

at approximately 1,000 feet, which can cause serious discomfort. (3) Another important aspect of noise is the duration of the sound and the way it is described and distributed in time.

## 2.2 NOISE DESCRIPTORS

Environmental noise descriptors are generally based on averages, rather than instantaneous, noise levels. The most used metric is the equivalent level ( $L_{eq}$ ). Equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level ( $L_{eq}$ ) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period and is commonly used to describe the “average” noise levels within the environment.

Peak hour or average noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level (CNEL), representing a composite 24-hour noise level is utilized. The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time-of-day corrections require the addition of 5 decibels to dBA  $L_{eq}$  sound levels in the evening from 7:00 p.m. to 10:00 p.m., and the addition of 10 decibels to dBA  $L_{eq}$  sound levels at night between 10:00 p.m. and 7:00 a.m. These additions are made to account for the noise sensitive time periods during the evening and night hours when noise can become more intrusive. CNEL does not represent the actual sound level heard at any time, but rather represents the total sound exposure. The City of Ontario relies on the 24-hour CNEL level to assess land use compatibility with transportation related noise sources.

## 2.3 SOUND PROPAGATION

When sound propagates over a distance, it changes in level and frequency content. The way noise reduces with distance depends on the following factors.

### 2.3.1 GEOMETRIC SPREADING

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. (2)

### 2.3.2 GROUND ABSORPTION

The propagation path of noise from a highway to a receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually

sufficiently accurate for distances of less than 200 ft. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source. (4)

### **2.3.3 ATMOSPHERIC EFFECTS**

Receivers located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects. (2)

### **2.3.4 SHIELDING**

A large object or barrier in the path between a noise source and a receiver can substantially attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Shielding by trees and other such vegetation typically only has an “out of sight, out of mind” effect. That is, the perception of noise impact tends to decrease when vegetation blocks the line-of-sight to nearby residents. However, for vegetation to provide a substantial, or even noticeable, noise reduction, the vegetation area must be at least 15 feet in height, 100 feet wide and dense enough to completely obstruct the line-of-sight between the source and the receiver. This size of vegetation may provide up to 5 dBA of noise reduction. The Federal Highway Administration (FHWA) does not consider the planting of vegetation to be a noise abatement measure. (5)

## **2.4 NOISE CONTROL**

Noise control is the process of obtaining an acceptable noise environment for an observation point or receiver by controlling the noise source, transmission path, receiver, or all three. This concept is known as the source-path-receiver concept. In general, noise control measures can be applied to these three elements.

## **2.5 NOISE BARRIER ATTENUATION**

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receiver. Noise barriers, however, do have limitations. For a noise barrier to work, it must block the line-of-sight path of sound from the noise source.

## 2.6 LAND USE COMPATIBILITY WITH NOISE

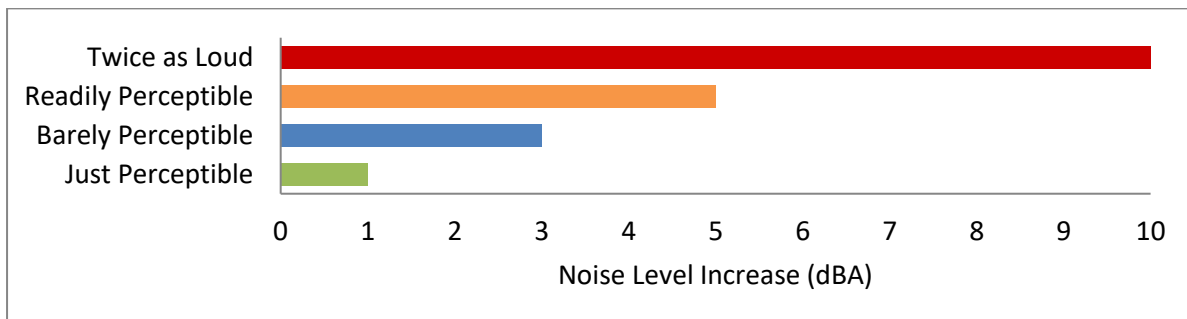
Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, and residences are more sensitive to noise intrusion than are commercial or industrial developments and related activities. As ambient noise levels affect the perceived amenity or livability of a development, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process. The FHWA encourages State and Local government to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized. (6)

## 2.7 COMMUNITY RESPONSE TO NOISE

Approximately sixteen percent of the population has a very low tolerance for noise and will object to any noise not of their making. Consequently, even in the quietest environment, some complaints may occur. Twenty to thirty percent of the population will not complain even in very severe noise environments. (7 pp. 8-6) Thus, a variety of reactions can be expected from people exposed to any given noise environment.

Surveys have shown that community response to noise varies from no reaction to vigorous action for newly introduced noises averaging from 10 dB below existing to 25 dB above existing. (8) According to research originally published in the Noise Effects Handbook (7), the percentage of high annoyance ranges from approximately 0 percent at 45 dB or less, 10 percent are highly annoyed around 60 dB, and increases rapidly to approximately 70 percent being highly annoyed at approximately 85 dB or greater. Despite this variability in behavior on an individual level, the population can be expected to exhibit the following responses to changes in noise levels as shown on Exhibit 2-B. A change of 3 dBA is considered barely perceptible, and changes of 5 dBA are considered readily perceptible. (4)

**EXHIBIT 2-B: NOISE LEVEL INCREASE PERCEPTION**



## 2.8 VIBRATION

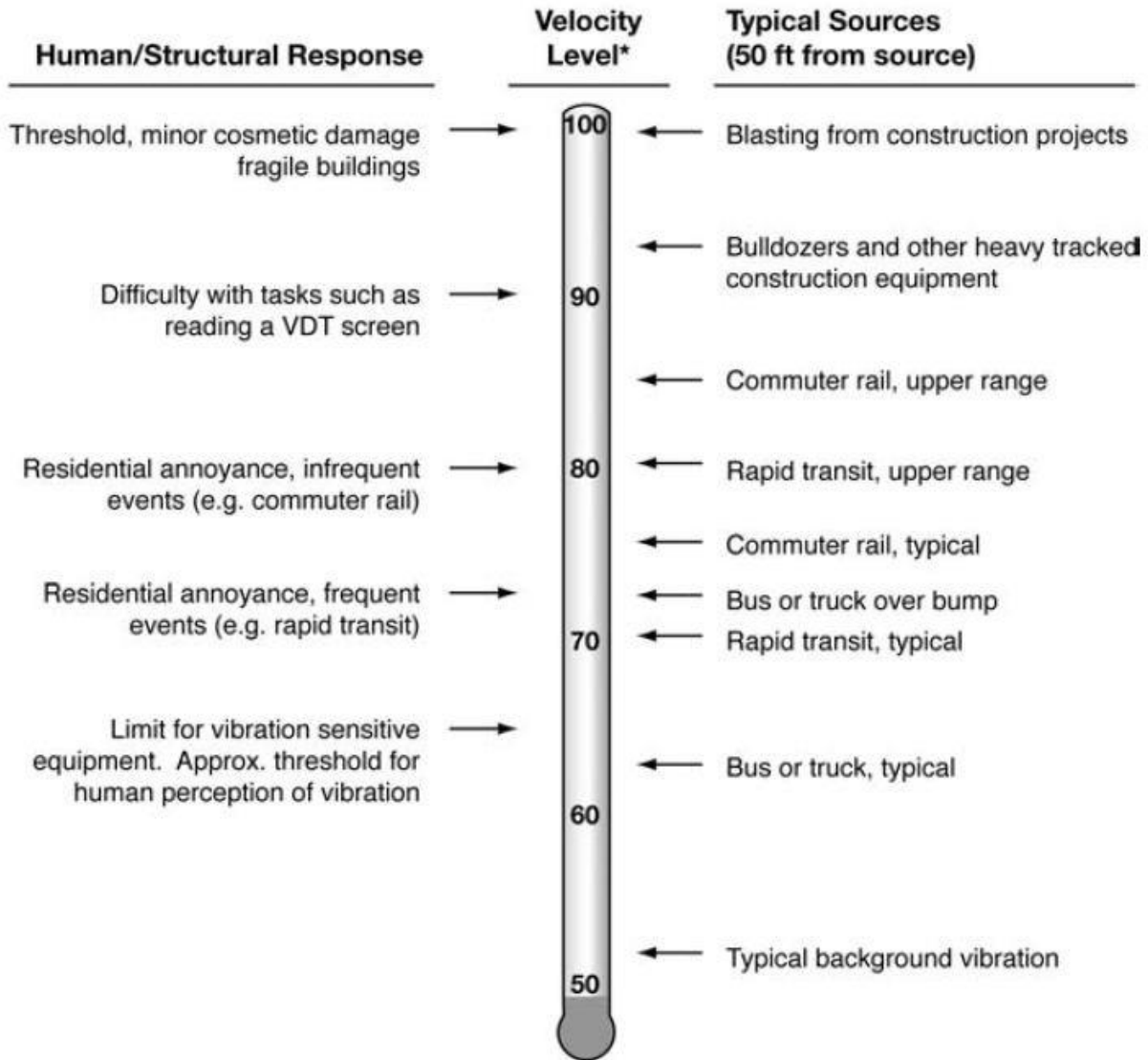
Per the Federal Transit Administration (FTA) *Transit Noise Impact and Vibration Impact Assessment Manual* (8), vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of ground-borne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings but is not always suitable for evaluating human response (annoyance) because it takes some time for the human body to respond to vibration signals. Instead, the human body responds to average vibration amplitude often described as the root mean square (RMS). The RMS amplitude is defined as the average of the squared amplitude of the signal and is most frequently used to describe the effect of vibration on the human body. Decibel notation (VdB) is commonly used to measure RMS. Decibel notation (VdB) serves to reduce the range of numbers used to describe human response to vibration. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receivers for vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration-sensitive equipment and/or activities.

The background vibration-velocity level in residential areas is generally 50 VdB. Ground-borne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings. Exhibit 2-C illustrates common vibration sources and the human and structural response to ground-borne vibration.



**EXHIBIT 2-C: TYPICAL LEVELS OF GROUND-BORNE VIBRATION**



\* RMS Vibration Velocity Level in VdB relative to  $10^{-6}$  inches/second

Source: Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual.

### 3 REGULATORY SETTING

The federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise. In most areas, automobile and truck traffic is the major source of environmental noise. Traffic activity generally produces an average sound level that remains constant with time. Air and rail traffic, and commercial and industrial activities are also major sources of noise in some areas. Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies.

#### 3.1 STATE OF CALIFORNIA NOISE REQUIREMENTS

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a Noise Element which is to be prepared per guidelines adopted by the Governor's Office of Planning and Research (OPR). (9) The purpose of the Noise Element is to *limit the exposure of the community to excessive noise levels*. In addition, the California Environmental Quality Act (CEQA) requires that all known environmental effects of a project be analyzed, including environmental noise impacts.

#### 3.2 CITY OF ONTARIO GENERAL PLAN NOISE ELEMENT

The City of Ontario General Plan (Policy Plan) identifies several policies to minimize the impacts of excessive noise levels throughout the community. Policy Plan Section S4, Noise Hazards, establishes a goal of maintaining *an environment where noise does not adversely affect the public's health, safety, and welfare*. (10) To satisfy this goal, the Policy Plan identifies six policies related to: noise mitigation; coordination with transportation authorities; airport noise mitigation; truck traffic; roadway design; and airport noise compatibility. Noise criteria identified at Policy Plan Table LU-7 provide guidelines to evaluate land use compatibility within various noise environments. Table LU-7 is reproduced here as Exhibit 3-A *Noise Level Exposure and Land Use Compatibility Guidelines*. The Project industrial land uses are considered *clearly acceptable* within exterior noise level environments approaching 70 dBA CNEL and *normally acceptable* within noise level environments up to 75 dBA CNEL. For noise level environments greater than 80 dBA CNEL, the Project land uses would be considered *clearly unacceptable*, and no new construction should be permitted.

**EXHIBIT 3-A: NOISE LEVEL EXPOSURE AND LAND USE COMPATIBILITY GUIDELINES**

LAND USE CATEGORIES		COMMUNITY NOISE EQUIVALENT LEVEL (CNEL)					
Category	Land Use	55	60	65	70	75	80
Residential/ Lodging	Single Family / Duplex	Green	Green	Yellow	Orange	Red	Red
	Multi-Family	Green	Green	Yellow	Orange	Red	Red
	Mobile Homes	Green	Green	Yellow	Red	Red	Red
	Hotel/Motels	Green	Green	Green	Yellow	Orange	Red
Public/Institutional	Schools/Hospitals	Green	Green	Yellow	Orange	Red	Red
	Churches/ Libraries	Green	Green	Yellow	Orange	Red	Red
	Auditoriums/Concert Halls	Green	Yellow	Orange	Orange	Red	Red
Commercial	Offices	Green	Green	Green	Yellow	Yellow	Orange
	Retail	Green	Green	Green	Green	Yellow	Orange
Industrial	Manufacturing	Green	Green	Green	Green	Yellow	Orange
	Warehousing	Green	Green	Green	Green	Yellow	Yellow
Recreational/ Open Space	Parks/Playgrounds	Green	Green	Green	Yellow	Orange	Red
	Golf Courses/ Riding Stables	Green	Green	Green	Yellow	Orange	Red
	Outdoor Spectator Sports	Green	Green	Yellow	Orange	Orange	Red
	Outdoor Music Shells/ Amphitheaters	Yellow	Yellow	Orange	Red	Red	Red
	Livestock/Wildlife Preserves	Green	Green	Green	Green	Orange	Red
	Crop Agriculture	Green	Green	Green	Green	Green	Green

**LEGEND**

	<b>Clearly Acceptable:</b>	No special noise insulation required, assuming buildings of normal conventional construction.
	<b>Normally Acceptable:</b>	Acoustical reports will be required for major new residential construction. Conventional construction with closed windows and fresh air supply systems of air conditioning will normally suffice.
	<b>Normally Unacceptable:</b>	New construction should be discouraged. Noise/aviation easements required for all new construction. If new construction does proceed, a detailed analysis of noise reduction requirements must be made and necessary noise insulation features included.
	<b>Clearly Unacceptable:</b>	No new construction should be permitted.

Source: The Ontario Plan Safety Section on Noise Hazards (Table LU-7).

### 3.3 OPERATIONAL NOISE STANDARDS

To analyze noise impacts originating from a designated fixed location or private property such as the 5355 East Airport Drive, stationary-source (operational) noise levels are evaluated against standards established under a City's Municipal Code. The City of Ontario requires that noise from new stationary sources in the City comply with the City's Noise Ordinance, which limits the acceptable noise at the property line of the impacted property, to reduce nuisances to sensitive land uses. Compliance with the City's Noise Ordinance would result in noise levels that are acceptable to the City and would result in less than significant noise impacts from stationary sources (11).

Section 5-29.04(a) identifies the allowable daytime and nighttime ambient exterior noise standards for each land use type. For Manufacturing and Industrial land uses (Noise Zone V), such as the Project, ambient exterior noise levels may not exceed 70 dBA  $L_{eq}$ . For residential land uses (Noise Zone I), ambient exterior noise levels may not exceed 65 dBA  $L_{eq}$  during the daytime hours (7:00 a.m. to 10:00 p.m.) and may not exceed 45 dBA  $L_{eq}$  during the nighttime hours (10:00 p.m. to 7:00 a.m.) (12). The lower noise level standard shall apply on the boundary between two (2) different noise zones. If the ambient noise level exceeds the resulting standard, the ambient noise level shall be the standard. The maximum acceptable Project-related operational noise levels received at off-site land uses in the City of Ontario are identified on Table 3-1.

**TABLE 3-1: OPERATIONAL NOISE STANDARDS**

Noise Zone	Land Use	Exterior Noise Levels (dBA $L_{eq}$ ) <sup>2</sup>	
		Daytime (7am-10pm)	Nighttime (10pm-7am)
I	Single-Family Residential	65	45
II	Multi-Family Residential	65	50
III	Commercial	65	60
IV	Residential Mixed-Use	70	70
V	Manufacturing and Industrial	70	70

<sup>1</sup> Source: Section 5-29.04 of the City of Ontario Municipal Code (Appendix 3.1).

<sup>2</sup>  $L_{eq}$  represents a steady state sound level containing the same total energy as a time varying signal over a given period.

### 3.4 CONSTRUCTION NOISE STANDARDS

The City of Ontario has set restrictions to control noise impacts associated with construction. Section 5-29.09 of the Municipal Code states: No person, while engaged in construction, remodeling, digging, grading, demolition or any other related building activity, shall operate any tool, equipment or machine in a manner that produces loud noise that disturbs a person of normal sensitivity who works or resides in the vicinity, or a Police or Code Enforcement Officer, on any weekday except between the hours of 7:00 a.m. and 6:00 p.m. or on Saturday or Sunday between the hours of 9:00 a.m. and 6:00 p.m. (12) While the City establishes limits to the hours during which construction activity may take place, it does not identify specific noise level limits for construction noise levels at potentially affected receiver locations for CEQA analysis purposes.

Therefore, a numerical construction threshold based on Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual is used for analysis of daytime construction impacts, as discussed below.

According to the FTA, local noise ordinances are typically not very useful in evaluating construction noise. They usually relate to nuisance and hours of allowed activity, and sometimes specify limits in terms of maximum levels, but are generally not practical for assessing the impact of a construction project. Project construction noise criteria should account for the existing noise environment, the absolute noise levels during construction activities, the duration of the construction, and the adjacent land use. Due to the lack of standardized construction noise thresholds, the FTA provides guidelines that can be considered reasonable criteria for construction noise assessment. The FTA considers a daytime exterior construction noise level of 80 dBA  $L_{eq}$  as a reasonable threshold for noise sensitive residential land use (8 p. 179).

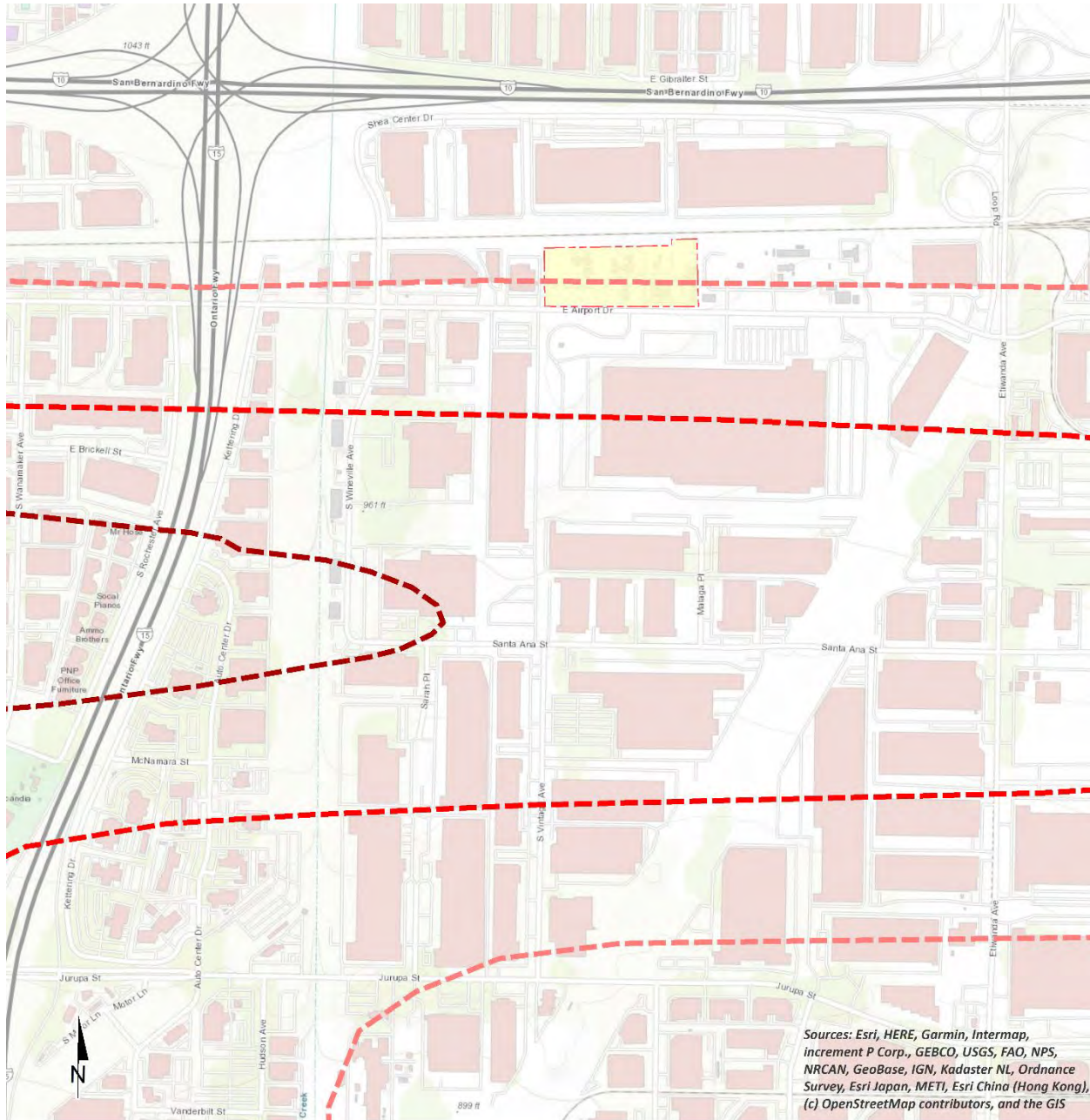
### 3.5 VIBRATION STANDARDS

Construction activity can result in varying degrees of ground-borne vibration, depending on the equipment and methods used, distance to the affected structures and soil type. Construction vibration is generally associated with pile driving and rock blasting. Other construction equipment such as air compressors, light trucks, hydraulic loaders, etc., generates little or no ground vibration. (8) To analyze vibration impacts originating from the operation and construction of 5355 East Airport Drive, vibration-generating activities are appropriately evaluated against standards established under a City's Municipal Code, if such standards exist. However, the City of Ontario does not identify specific vibration level limits. Therefore, for analysis purposes, the Caltrans *Transportation and Construction Vibration Guidance Manual*, (13 p. 38) Table 19, vibration damage are used in this noise study to assess potential temporary construction-related impacts at adjacent building locations. The nearest noise sensitive buildings adjacent to the Project site can best be described as "older residential structures" with a maximum acceptable continuous vibration threshold of 0.3 PPV (in/sec).

### 3.6 AIRPORT LAND USE COMPATIBILITY

The Project site is located approximately 2.7 miles east of the Ontario International Airport (ONT). This places the Project site within the ONT Airport Influence Area according to Policy Map 2-1 of the *Ontario International Airport Land Use Compatibility Plan (ONT ALUCP)*. The ONT ALUCP was amended July 2018 to promote compatibility between airport and the land uses that surround it (14). Since the Project site is located within the ONT Airport Influence Area, the Project is subject to the Noise Criteria established on Table 2-3 in the ONT ALUCP. As shown on Exhibit 3-B, the Project site is located within the ONT Airport Influence Area but outside the 65 dBA CNEL airport noise impact zone consistent with Policy Map 2-3. According to Table 2-3 of the ONT ALUCP, industrial land uses located outside the 65 dBA CNEL noise level contours of ONT, such as the Project, are considered *normally compatible land use*. For *normally compatible land use*, either the activities associated with the land use are inherently noisy or standard construction methods will sufficiently attenuate exterior noise to an acceptable indoor community noise equivalent level (CNEL).

**EXHIBIT 3-B: ONT FUTURE AIRPORT NOISE CONTOURS**



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS

**LEGEND:**

- Project Site Boundary
- Ontario Airport Noise Impact Zone**
- 60 dBA CNEL Noise Contour
- 65 dBA CNEL Noise Contour
- 70 dBA CNEL Noise Contour

Source: Ontario International ALUCP Compatibility Policy Map: Noise Impact Zones, Map 2-3 (July 2018 Amendment)

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## 4 SIGNIFICANCE CRITERIA

The following significance criteria are based on currently adopted guidance provided by Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1) For the purposes of this report, impacts would be potentially significant if the Project results in or causes:

- A. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- B. Generation of excessive ground-borne vibration or ground-borne noise levels?
- C. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

### 4.1 NOISE LEVEL INCREASES (THRESHOLD A)

Noise level increases resulting from the Project are evaluated based on the Appendix G CEQA Guidelines. Under CEQA, consideration must be given to the magnitude of the increase, the existing baseline ambient noise levels, and the location of receivers to determine if a noise increase represents a significant adverse environmental impact. This approach recognizes *that there is no single noise increase that renders the noise impact significant.* (15) This is primarily because of the wide variation in individual thresholds of annoyance and differing individual experiences with noise. Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of it to the existing environment to which one has adapted—the so-called *ambient* environment. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will typically be judged.

The Federal Interagency Committee on Noise (FICON) (16) developed guidance to be used for the assessment of project-generated increases in noise levels that consider the ambient noise level. The FICON recommendations are based on studies that relate aircraft noise levels to the percentage of persons highly annoyed by aircraft noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, these recommendations are often used in environmental noise impact assessments involving the use of cumulative noise exposure metrics, such as the average-daily noise level (CNEL) and equivalent continuous noise level ( $L_{eq}$ ).

As previously stated, the approach used in this noise study recognizes *that there is no single noise increase that renders the noise impact significant*, based on a 2008 California Court of Appeal ruling on *Gray v. County of Madera*. (15) For example, if the ambient noise environment is quiet (<60 dBA) and the new noise source greatly increases the noise levels, an impact may occur if the noise criteria may be exceeded. Therefore, for this analysis, a *readily perceptible* 5 dBA or greater project-related noise level increase is considered a significant impact when the without project noise levels are below 60 dBA. Per the FICON, in areas where the without project noise levels range from 60 to 65 dBA, a 3 dBA *barely perceptible* noise level increase appears to be appropriate for most people. When the without project noise levels already exceed 65 dBA, any increase in community noise louder than 1.5 dBA or greater is considered a significant impact if



the noise criteria for a given land use is exceeded, since it likely contributes to an existing noise exposure exceedance. The FICON guidance provides an established source of criteria to assess the impacts of substantial temporary or permanent increase in baseline ambient noise levels. Based on the FICON criteria, the amount to which a given noise level increase is considered acceptable is reduced when the without Project (baseline) noise levels are already shown to exceed certain land-use specific exterior noise level criteria. The specific levels are based on typical responses to noise level increases of 5 dBA or *readily perceptible*, 3 dBA or *barely perceptible*, and 1.5 dBA depending on the underlying without Project noise levels for noise-sensitive uses. These levels of increases and their perceived acceptance are consistent with guidance provided by both the Federal Highway Administration (4 p. 9) and Caltrans (17 p. 2\_48).

#### **4.2 VIBRATION (THRESHOLD B)**

As described in Section 3.5, the vibration impacts originating from the construction of the 5355 East Airport Drive, vibration-generating activities are appropriately evaluated using the Caltrans vibration damage thresholds to assess potential temporary construction-related impacts at adjacent building locations. The nearest noise sensitive buildings adjacent to the Project site can best be described as “older residential structures” with a maximum acceptable continuous vibration threshold of 0.3 PPV (in/sec).

#### **4.3 CEQA GUIDELINES NOT FURTHER ANALYZED (THRESHOLD C)**

CEQA Noise Threshold C applies when there are nearby public and private airports and/or air strips and focuses on land use compatibility of the Project to nearby airports and airstrips. The closest airport which would require additional noise analysis under CEQA guideline C is the Ontario International Airport. As previously indicated in Section 3.6, the Project site is located within the ONT Airport Influence Area but is located outside the 65 dBA CNEL airport noise impact zone. Therefore, airport noise impacts are considered *less than significant*, and no further noise analysis is provided under Guideline C.

#### 4.4 SIGNIFICANCE CRITERIA SUMMARY

Noise impacts shall be considered significant if any of the following occur as a direct result of the proposed Project. Table 4-1 shows the significance criteria summary matrix that includes the allowable criteria used to identify potentially significant incremental noise level increases.

**TABLE 4-1: SIGNIFICANCE CRITERIA SUMMARY**

Analysis	Receiving Land Use	Condition(s)	Significance Criteria	
			Daytime	Nighttime
Operational	Noise-Sensitive	Exterior Noise Level Standards <sup>1</sup>	65 dBA Leq	45 dBA Leq
		If ambient is < 60 dBA Leq <sup>2</sup>	≥ 5 dBA Leq Project increase	
		If ambient is 60 - 65 dBA Leq <sup>2</sup>	≥ 3 dBA Leq Project increase	
		If ambient is > 65 dBA Leq <sup>2</sup>	≥ 1.5 dBA Leq Project increase	
Construction	Noise-Sensitive	Permitted hours of 7:00 a.m. and 6:00 p.m. on weekdays <sup>3</sup>		
		Noise Level Threshold <sup>4</sup>	80 dBA Leq	
		Vibration Level Threshold <sup>5</sup>	0.3 PPV (in/sec)	

<sup>1</sup> City of Ontario Municipal Code, 5-29.04(a) exterior noise standards for residential land uses (Noise Zone I).

<sup>2</sup> FICON, 1992.

<sup>3</sup> City of Ontario Municipal Code Section 5-29.09(a).

<sup>4</sup> Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual.

<sup>5</sup> Caltrans Transportation and Construction Vibration Manual, April 2020 Table 19.

"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

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## 5 EXISTING NOISE LEVEL MEASUREMENTS

To assess the existing noise level environment, 24-hour noise level measurements were taken at four locations in the Project study area. The receiver locations were selected to describe and document the existing noise environment within the Project study area. Exhibit 5-A provides the boundaries of the Project study area and the noise level measurement locations. To fully describe the existing noise conditions, noise level measurements were collected by Urban Crossroads, Inc. on Tuesday, March 8<sup>th</sup>, 2022. Appendix 5.1 includes study area photos.

### 5.1 MEASUREMENT PROCEDURE AND CRITERIA

To describe the existing noise environment, the hourly noise levels were measured during typical weekday conditions over a 24-hour period. By collecting individual hourly noise level measurements, it is possible to describe the equivalent daytime and nighttime hourly noise levels. The long-term noise readings were recorded using Piccolo Type 2 integrating sound level meter and dataloggers. The Piccolo sound level meters were calibrated using a Larson-Davis calibrator, Model CAL 150. All noise meters were programmed in "slow" mode to record noise levels in "A" weighted form. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013. (18)

### 5.2 NOISE MEASUREMENT LOCATIONS

The long-term noise level measurements were positioned as close to the nearest sensitive receiver locations as possible to assess the existing ambient hourly noise levels surrounding the Project site. Both Caltrans and the FTA recognize that it is not reasonable to collect noise level measurements that can fully represent every part of a private yard, patio, deck, or balcony normally used for human activity when estimating impacts for new development projects. This is demonstrated in the Caltrans general site location guidelines which indicate that, *sites must be free of noise contamination by sources other than sources of interest. Avoid sites located near sources such as barking dogs, lawnmowers, pool pumps, and air conditioners unless it is the express intent of the analyst to measure these sources.* (2) Further, FTA guidance states, *that it is not necessary nor recommended that existing noise exposure be determined by measuring at every noise-sensitive location in the project area. Rather, the recommended approach is to characterize the noise environment for clusters of sites based on measurements or estimates at representative locations in the community.* (8)

Based on recommendations of Caltrans and the FTA, it is not necessary to collect measurements at each individual building or residence, because each receiver measurement represents a group of buildings that share acoustical equivalence. (8) In other words, the area represented by the receiver shares similar shielding, terrain, and geometric relationship to the reference noise source. Receivers represent a location of noise sensitive areas and are used to estimate the future noise level impacts. Collecting reference ambient noise level measurements at the nearby sensitive receiver locations allows for a comparison of the before and after Project noise levels

and is necessary to assess potential noise impacts due to the Project's contribution to the ambient noise levels.

### 5.3 NOISE MEASUREMENT RESULTS

The noise measurements presented below focus on the average or equivalent sound levels ( $L_{eq}$ ). The equivalent sound level ( $L_{eq}$ ) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. Table 5-1 identifies the hourly daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) noise levels at each noise level measurement location.

**TABLE 5-1: 24-HOUR AMBIENT NOISE LEVEL MEASUREMENTS**

Location <sup>1</sup>	Description	Energy Average Noise Level (dBA $L_{eq}$ ) <sup>2</sup>	
		Daytime	Nighttime
L1	Located northwest of the Project site near Ayres Hotel Ontario Mills Mall at 4395 Ontario Mills Parkway.	58.4	59.0
L2	Located northwest of the Project site near Hampton Inn & Suites Ontario at 4500 Ontario Mills Parkway.	61.7	61.3
L3	Located northwest of the Project site near Country Inn & Suites by Radisson, Ontario at Ontario Mills at 4674 Ontario Mills Parkway.	67.1	62.2
L4	Located northwest of the Project site near Hyatt Place Ontario/Rancho Cucamonga at 4760 Mills Circle.	69.8	68.2

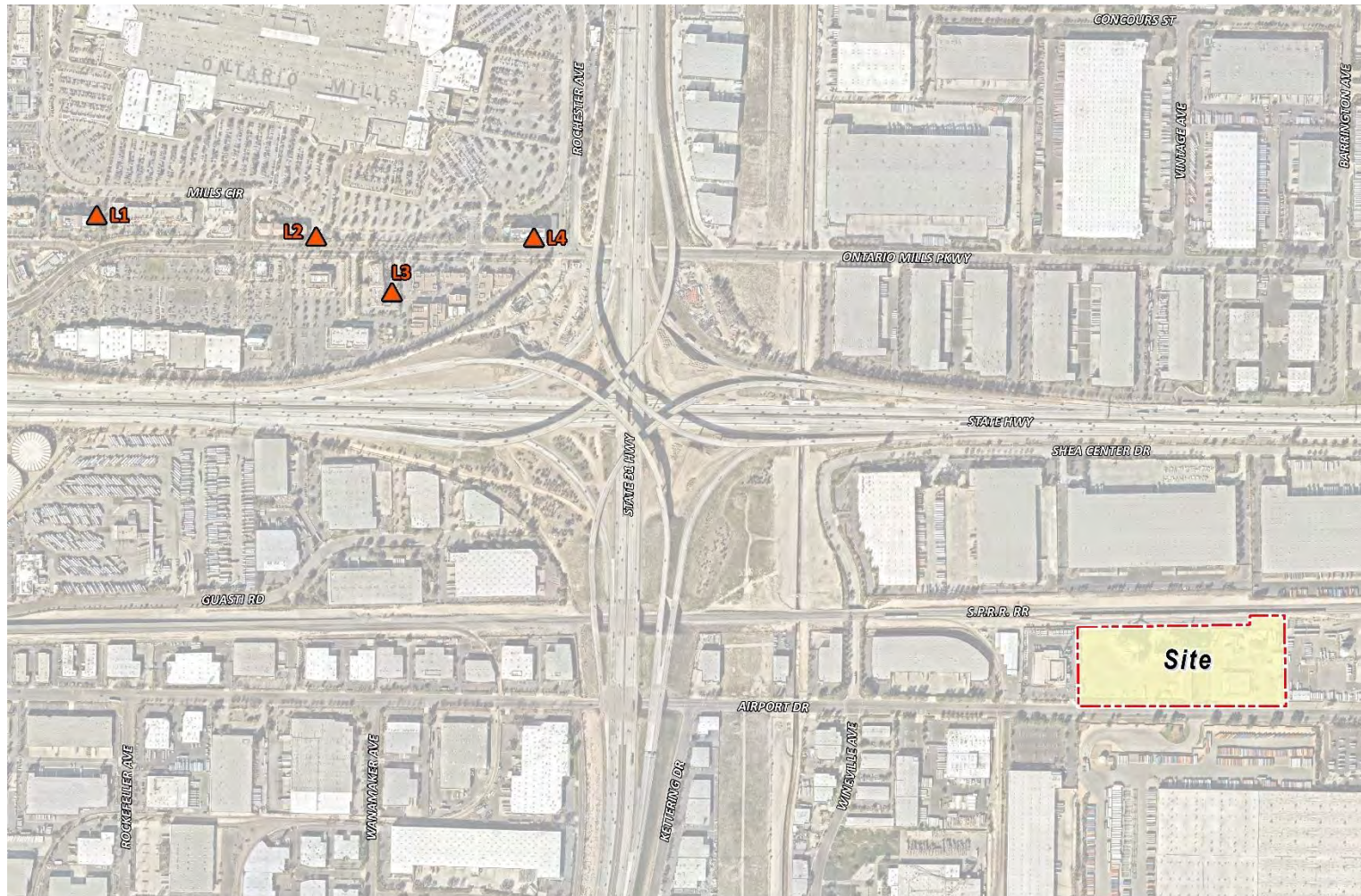
<sup>1</sup> See Exhibit 5-A for the noise level measurement locations.

<sup>2</sup> Energy (logarithmic) average levels. The long-term 24-hour measurement worksheets are included in Appendix 5.2.

"Daytime" = 7:00 a.m. to 7:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

Table 5-1 provides the (energy average) noise levels used to describe the daytime and nighttime ambient conditions. These daytime and nighttime energy average noise levels represent the average of all hourly noise levels observed during these time periods expressed as a single number. Appendix 5.2 provides summary worksheets of the noise levels for each hour as well as the minimum, maximum, L<sub>1</sub>, L<sub>2</sub>, L<sub>5</sub>, L<sub>8</sub>, L<sub>25</sub>, L<sub>50</sub>, L<sub>90</sub>, L<sub>95</sub>, and L<sub>99</sub> percentile noise levels observed during the daytime and nighttime periods.

EXHIBIT 5-A: NOISE MEASUREMENT LOCATIONS



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## 6 RECEIVER LOCATIONS

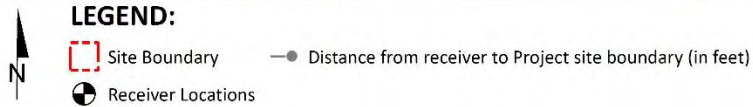
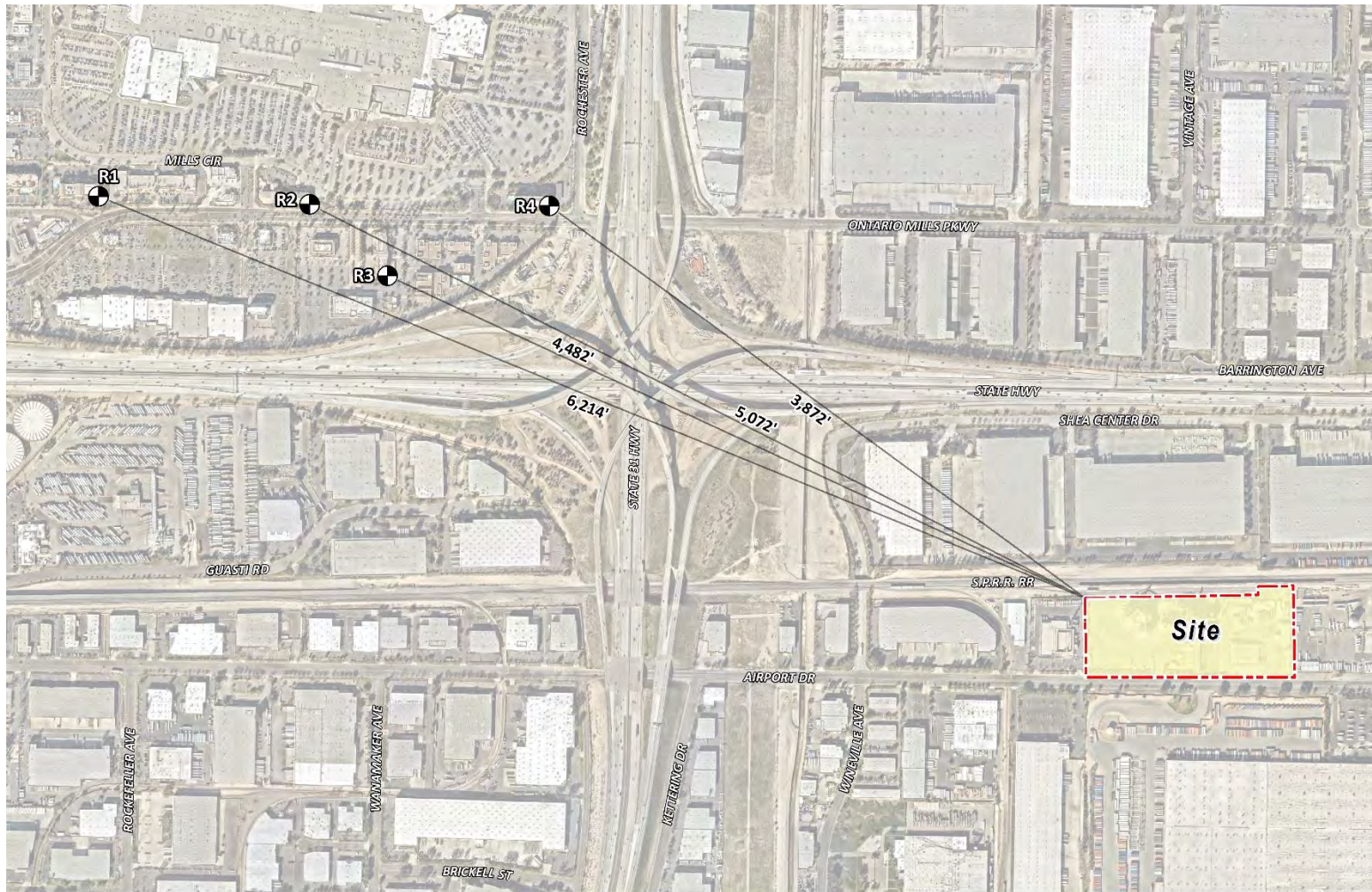
To assess the potential for long-term operational and short-term construction noise impacts, the following sensitive receiver locations, as shown on Exhibit 6-A, were identified as representative locations for analysis. Sensitive receivers are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise-sensitive land uses are generally considered to include schools, hospitals, single-family dwellings, mobile home parks, churches, libraries, and recreation areas. Moderately noise-sensitive land uses typically include multi-family dwellings, hotels, motels, dormitories, outpatient clinics, cemeteries, golf courses, country clubs, athletic/tennis clubs, and equestrian clubs. Land uses that are considered relatively insensitive to noise include business, commercial, and professional developments. Land uses that are typically not affected by noise include: industrial, manufacturing, utilities, agriculture, undeveloped land, parking lots, warehousing, liquid and solid waste facilities, salvage yards, and transit terminals.

To describe the potential off-site Project noise levels, four receiver locations in the vicinity of the Project site were identified. The selection of receiver locations is based on FHWA guidelines and is consistent with additional guidance provided by Caltrans and the FTA, as previously described in Section 5.2. Other sensitive land uses in the Project study area that are located at greater distances than those identified in this noise study will experience lower noise levels than those presented in this report due to the additional attenuation from distance and the shielding of intervening structures. Distance is measured in a straight line from the project boundary to each receiver location.

- R1: Location R1 represents the existing noise sensitive Ayres Hotel Ontario Mills Mall at 4395 Ontario Mills Parkway, approximately 6,214 feet northwest of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R1 is placed at the building façade. A 24-hour noise measurement was taken near this location, L1, to describe the existing ambient noise environment.
- R2: Location R2 represents the existing noise sensitive Hampton Inn & Suites Ontario at 4500 Ontario Mills Parkway, approximately 5,072 feet northwest of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R2 is placed at the building façade. A 24-hour noise measurement was taken near this location, L2, to describe the existing ambient noise environment.
- R3: Location R3 represents the existing noise Country Inn & Suites by Radisson, Ontario at Ontario Mills at 4674 Ontario Mills Parkway, approximately 4,482 feet northwest of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R3 is placed at the building façade. A 24-hour noise measurement was taken near this location, L3, to describe the existing ambient noise environment.
- R4: Location R4 represents the existing noise Hyatt Place Ontario/Rancho Cucamonga at 4760 Mills Circle, approximately 3,872 feet northwest of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R4 is placed at the building façade. A 24-hour noise measurement was taken near this location, L4, to describe the existing ambient noise environment.



EXHIBIT 6-A: RECEIVER LOCATIONS



## 7 OPERATIONAL NOISE ANALYSIS

This section analyzes the potential stationary-source operational noise impacts at the nearby receiver locations, identified in Section 6, resulting from the operation of the proposed 5355 East Airport Drive Project. Exhibit 7-A identifies the noise source locations used to assess the operational noise levels.

### 7.1 OPERATIONAL NOISE SOURCES

This operational noise analysis is intended to describe noise level impacts associated with the expected typical of daytime and nighttime activities at the Project site. To present the potential worst-case noise conditions, this analysis assumes the Project would be operational 24 hours per day, seven days per week. Consistent with similar warehouse and industrial uses, the Project business operations would primarily be conducted within the enclosed buildings, except for traffic movement, parking, as well as loading and unloading of trucks at designated loading bays. The on-site Project-related noise sources are expected to include: loading dock activity, roof-top air conditioning units, trash enclosure activity, parking lot vehicle movements, and truck movements.

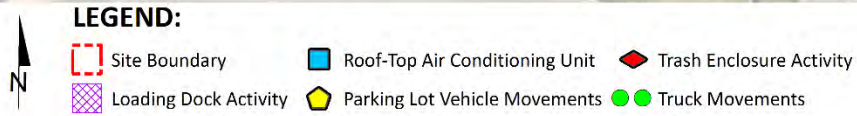
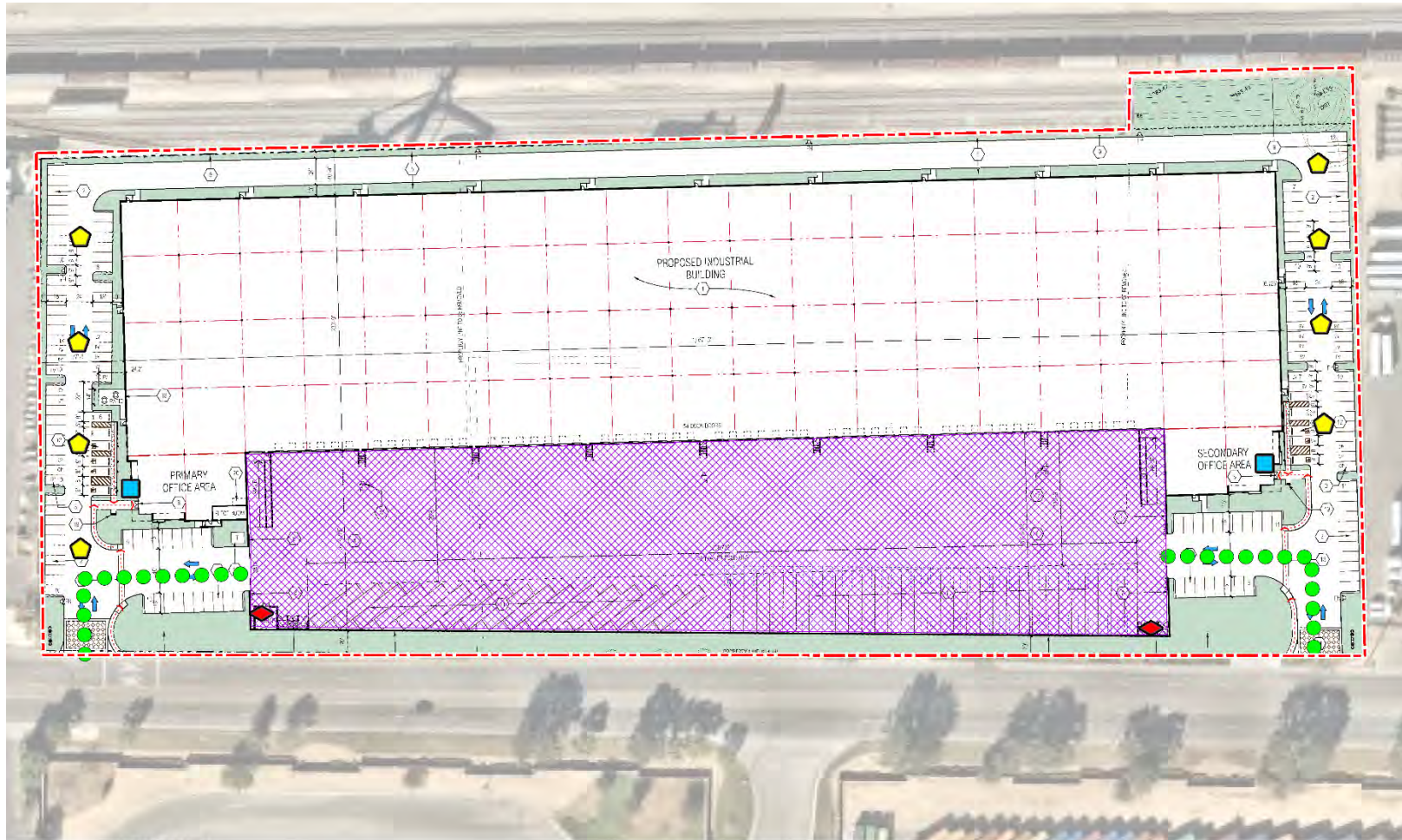
### 7.2 REFERENCE NOISE LEVELS

To estimate the Project operational noise impacts, reference noise level measurements were collected from similar types of activities to represent the noise levels expected with the development of the proposed Project. This section provides a detailed description of the reference noise level measurements shown on Table 7-1 used to estimate the Project operational noise impacts. It is important to note that the following projected noise levels assume the worst-case noise environment with the loading dock activity, roof-top air conditioning units, trash enclosure activity, parking lot vehicle movements, and truck movements all operating at the same time. These sources of noise activity will likely vary throughout the day.

#### 7.2.1 MEASUREMENT PROCEDURES

The reference noise level measurements presented in this section were collected using a Larson Davis LxT Type 1 precision sound level meter (serial number 01146). The LxT sound level meter was calibrated using a Larson-Davis calibrator, Model CAL 200, was programmed in "slow" mode to record noise levels in "A" weighted form and was located at approximately five feet above the ground elevation for each measurement. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013. (18)

**EXHIBIT 7-A: OPERATIONAL NOISE SOURCE LOCATIONS**



**TABLE 7-1: REFERENCE NOISE LEVEL MEASUREMENTS**

Noise Source <sup>1</sup>	Noise Source Height (Feet)	Min./Hour <sup>2</sup>		Reference Noise Level (dBA Leq) @ 50 Feet	Sound Power Level (dBA) <sup>3</sup>
		Day	Night		
Loading Dock Activity	8'	60	60	65.7	111.5
Roof-Top Air Conditioning Units	5'	39	28	57.2	88.9
Trash Enclosure Activity	5'	10	10	57.3	89.0
Parking Lot Vehicle Movements	5'	60	60	56.1	87.8
Truck Movements	8'	60	60	59.8	93.2

<sup>1</sup> As measured by Urban Crossroads, Inc.

<sup>2</sup> Anticipated duration (minutes within the hour) of noise activity during typical hourly conditions expected at the Project site. "Daytime" = 7:00 a.m. - 10:00 p.m.; "Nighttime" = 10:00 p.m. - 7:00 a.m.

<sup>3</sup> Sound power level represents the total amount of acoustical energy (noise level) produced by a sound source independent of distance or surroundings. Sound power levels calculated using the CadnaA noise model at the reference distance to the noise source.

### 7.2.2 LOADING DOCK ACTIVITY

The reference loading dock activities are intended to describe the typical outdoor operational noise activities associated with the Project. This includes truck idling, reefer activity (refrigerator truck/cold storage), deliveries, backup alarms, trailer docking including a combination of tractor trailer semi-trucks, two-axle delivery trucks, and background operation activities. Since the noise levels generated by cold storage loading dock activity can be slightly higher due to the use of refrigerated trucks or reefers.

The reference noise level measurement was taken in the center of the loading dock activity area and represents multiple concurrent noise sources resulting in a combined noise level of 65.7 dBA Leq at a uniform distance of 50 feet. Specifically, the reference noise level measurement represents one truck located approximately 30 feet from the noise level meter with another truck passing by to park roughly 20 feet away, both with their engines idling. Throughout the reference noise level measurement, a separate docked and running reefer truck was located approximately 50 feet east of the measurement location. Additional background noise sources included truck pass-by noise, truck drivers talking to each other next to docked trucks, and air brake release noise when trucks parked.

### 7.2.3 ROOF-TOP AIR CONDITIONING UNITS

The noise level measurements describe a single mechanical roof-top air conditioning unit. The reference noise level represents a Lennox SCA120 series 10-ton model packaged air conditioning unit. At the uniform reference distance of 50 feet, the reference noise levels are 57.2 dBA Leq. Based on the typical operating conditions observed over a four-day measurement period, the roof-top air conditioning units are estimated to operate for an average 39 minutes per hour during the daytime hours, and 28 minutes per hour during the nighttime hours. These operating conditions reflect peak summer cooling requirements with measured temperatures approaching

96 degrees Fahrenheit (°F) with average daytime temperatures of 82°F. For this noise analysis, the air conditioning units are expected to be located on the roof of the Project buildings.

#### **7.2.4 TRASH ENCLOSURE ACTIVITY**

To describe the noise levels associated with a trash enclosure activity, Urban Crossroads collected a reference noise level measurement at an existing trash enclosure containing two dumpster bins. The trash enclosure noise levels describe metal gates opening and closing, metal scraping against concrete floor sounds, dumpster movement on metal wheels, and trash dropping into the metal dumpster. The reference noise levels describe trash enclosure noise activities when trash is dropped into an empty metal dumpster, as would occur at the Project Site. The measured reference noise level at the uniform 50-foot reference distance is 57.3 dBA  $L_{eq}$  for the trash enclosure activity. The reference noise level describes the expected noise source activities associated with the trash enclosures for the Project's proposed building. Typical trash enclosure activities are estimated to occur for 10 minutes per hour.

#### **7.2.5 PARKING LOT VEHICLE MOVEMENTS**

To describe the on-site parking lot activity, a long-term 29-hour reference noise level measurement was collected in the center of activity within the staff parking lot of a warehouse distribution center. At 50 feet from the center of activity, the parking lot produced a reference noise level of 56.1 dBA  $L_{eq}$ . Parking activities are expected to take place during the full hour (60 minutes) throughout the daytime and evening hours. The parking lot noise levels are mainly due cars pulling in and out of parking spaces in combination with car doors opening and closing.

#### **7.2.6 TRUCK MOVEMENTS**

The truck movements reference noise level measurement was collected over a period of 1 hour and 28 minutes and represents multiple heavy trucks entering and exiting the outdoor loading dock area producing a reference noise level of 59.8 dBA  $L_{eq}$  at 50 feet. The noise sources included at this measurement location account for trucks entering and existing the Project driveways and maneuvering in and out of the outdoor loading dock activity area.

### **7.3 CADNAA NOISE PREDICTION MODEL**

To fully describe the exterior operational noise levels from the Project, Urban Crossroads, Inc. developed a noise prediction model using the CadnaA (Computer Aided Noise Abatement) computer program. CadnaA can analyze multiple types of noise sources using the spatially accurate Project site plan, georeferenced Nearmap aerial imagery, topography, buildings, and barriers in its calculations to predict outdoor noise levels.

Using the ISO 9613-2 protocol, CadnaA will calculate the distance from each noise source to the noise receiver locations, using the ground absorption, distance, and barrier/building attenuation inputs to provide a summary of noise level at each receiver and the partial noise level contributions by noise source. Consistent with the ISO 9613-2 protocol, the CadnaA noise prediction model relies on the reference sound power level ( $L_w$ ) to describe individual noise sources. While sound pressure levels (e.g.,  $L_{eq}$ ) quantify in decibels the intensity of given sound

sources at a reference distance, sound power levels ( $L_w$ ) are connected to the sound source and are independent of distance. Sound pressure levels vary substantially with distance from the source and diminish because of intervening obstacles and barriers, air absorption, wind, and other factors. Sound power is the acoustical energy emitted by the sound source and is an absolute value that is not affected by the environment.

The operational noise level calculations provided in this noise study account for the distance attenuation provided due to geometric spreading, when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern. A default ground attenuation factor of 0.5 was used in the CadnaA noise analysis to account for mixed ground representing a combination of hard and soft surfaces. Appendix 7.1 includes the detailed noise model inputs used to estimate the Project operational noise levels presented in this section.

## 7.4 PROJECT OPERATIONAL NOISE LEVELS

Using the reference noise levels to represent the proposed Project operations that include loading dock activity, roof-top air conditioning units, trash enclosure activity, parking lot vehicle movements, and truck movements, Urban Crossroads, Inc. calculated the operational source noise levels that are expected to be generated at the Project site and the Project-related noise level increases that would be experienced at each of the sensitive receiver locations. Table 7-2 shows the Project operational noise levels during the daytime hours of 7:00 a.m. to 10:00 p.m. The daytime hourly noise levels at the off-site receiver locations are expected to range from 22.2 to 27.4 dBA  $L_{eq}$ .

**TABLE 7-2: DAYTIME PROJECT OPERATIONAL NOISE LEVELS**

Noise Source <sup>1</sup>	Operational Noise Levels by Receiver Location (dBA Leq)			
	R1	R2	R3	R4
Loading Dock Activity	21.0	25.2	26.4	25.8
Roof-Top Air Conditioning Units	7.6	10.8	12.1	13.5
Trash Enclosure Activity	0.0	2.6	4.0	0.0
Parking Lot Vehicle Movements	11.5	15.6	16.9	18.5
Truck Movements	12.6	15.4	16.8	16.8
<b>Total (All Noise Sources)</b>	<b>22.2</b>	<b>26.2</b>	<b>27.4</b>	<b>27.2</b>

<sup>1</sup> See Exhibit 7-A for the noise source locations. CadnaA noise model calculations are included in Appendix 7.1.

Table 7-3 shows the Project operational noise levels during the nighttime hours of 10:00 p.m. to 7:00 a.m. The nighttime hourly noise levels at the off-site receiver locations are expected to range from 22.1 to 27.4 dBA  $L_{eq}$ . The differences between the daytime and nighttime noise levels are largely related to the estimated duration of noise activity as outlined in Table 7-1 and Appendix 7.1.

**TABLE 7-3: NIGHTTIME PROJECT OPERATIONAL NOISE LEVELS**

Noise Source <sup>1</sup>	Operational Noise Levels by Receiver Location (dBA Leq)			
	R1	R2	R3	R4
Loading Dock Activity	21.0	25.2	26.4	25.8
Roof-Top Air Conditioning Units	5.2	8.4	9.7	11.0
Trash Enclosure Activity	0.0	1.7	3.0	0.0
Parking Lot Vehicle Movements	11.5	15.6	16.9	18.5
Truck Movements	12.6	15.4	16.8	16.8
<b>Total (All Noise Sources)</b>	<b>22.1</b>	<b>26.1</b>	<b>27.4</b>	<b>27.1</b>

<sup>1</sup> See Exhibit 7-A for the noise source locations. CadnaA noise model calculations are included in Appendix 7.1.

## 7.5 PROJECT OPERATIONAL NOISE LEVEL COMPLIANCE

To demonstrate compliance with local noise regulations, the Project-only operational noise levels are evaluated against exterior noise level thresholds based on the City of Ontario exterior noise level standards at nearby noise-sensitive receiver locations. Table 7-4 shows the operational noise levels associated with 5355 East Airport Drive Project will satisfy the City of Ontario exterior noise level standards.

**TABLE 7-4: OPERATIONAL NOISE LEVEL COMPLIANCE**

Receiver Location <sup>1</sup>	Project Operational Noise Levels (dBA Leq) <sup>2</sup>		Noise Level Standards (dBA Leq) <sup>3</sup>		Noise Level Standards Exceeded? <sup>4</sup>	
	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime
R1	22.2	22.1	65.0	45.0	No	No
R2	26.2	26.1	65.0	45.0	No	No
R3	27.4	27.4	65.0	45.0	No	No
R4	27.2	27.1	65.0	45.0	No	No

<sup>1</sup> See Exhibit 6-A for the receiver locations.

<sup>2</sup> Proposed Project operational noise levels as shown on Tables 7-2 and 7-3.

<sup>3</sup> Exterior noise level standards, for residential land use, as shown on Table 4-1.

<sup>4</sup> Do the estimated Project operational noise source activities exceed the noise level standards?

"Daytime" = 7:00 a.m. - 10:00 p.m.; "Nighttime" = 10:00 p.m. - 7:00 a.m.

## 7.6 PROJECT OPERATIONAL NOISE LEVEL INCREASES

To describe the Project operational noise level increases, the Project operational noise levels are combined with the existing ambient noise levels measurements for the nearby receiver locations potentially impacted by Project operational noise sources. Since the units used to measure noise, decibels (dB), are logarithmic units, the Project-operational and existing ambient noise levels cannot be combined using standard arithmetic equations. (2) Instead, they must be logarithmically added using the following base equation:

$$SPL_{Total} = 10\log_{10}[10^{SPL1/10} + 10^{SPL2/10} + \dots 10^{SPLn/10}]$$

Where “SPL1,” “SPL2,” etc. are equal to the sound pressure levels being combined, or in this case, the Project-operational and existing ambient noise levels. The difference between the combined Project and ambient noise levels describes the Project noise level increases to the existing ambient noise environment. As indicated on Tables 7-5 and 7-6, the Project will not generate an unmitigated nighttime operational noise level increase at the nearest receiver locations. Project-related operational noise level increases will satisfy the operational noise level increase significance criteria presented on Table 4-1. Therefore, the incremental Project operational noise level increase is considered *less than significant* at all receiver locations.

**TABLE 7-5: DAYTIME PROJECT OPERATIONAL NOISE LEVEL INCREASES**

Receiver Location <sup>1</sup>	Total Project Operational Noise Level <sup>2</sup>	Measurement Location <sup>3</sup>	Reference Ambient Noise Levels <sup>4</sup>	Combined Project and Ambient <sup>5</sup>	Project Increase <sup>6</sup>	Increase Criteria <sup>7</sup>	Increase Criteria Exceeded?
R1	22.2	L1	58.4	58.4	0.0	5.0	No
R2	26.2	L2	61.7	61.7	0.0	5.0	No
R3	27.4	L3	67.1	67.1	0.0	1.5	No
R4	27.2	L4	69.8	69.8	0.0	1.5	No

<sup>1</sup> See Exhibit 6-A for the receiver locations.

<sup>2</sup> Total Project daytime operational noise levels as shown on Table 7-2.

<sup>3</sup> Reference noise level measurement locations as shown on Exhibit 5-A.

<sup>4</sup> Observed daytime ambient noise levels as shown on Table 5-1.

<sup>5</sup> Represents the combined ambient conditions plus the Project activities.

<sup>6</sup> The noise level increase expected with the addition of the proposed Project activities.

<sup>7</sup> Significance increase criteria as shown on Table 4-1.



**TABLE 7-6: NIGHTTIME OPERATIONAL NOISE LEVEL INCREASES**

Receiver Location <sup>1</sup>	Total Project Operational Noise Level <sup>2</sup>	Measurement Location <sup>3</sup>	Reference Ambient Noise Levels <sup>4</sup>	Combined Project and Ambient <sup>5</sup>	Project Increase <sup>6</sup>	Increase Criteria <sup>7</sup>	Increase Criteria Exceeded?
R1	22.1	L1	59.0	59.0	0.0	5.0	No
R2	26.1	L2	61.3	61.3	0.0	5.0	No
R3	27.4	L3	62.2	62.2	0.0	5.0	No
R4	27.1	L4	68.2	68.2	0.0	1.5	No

<sup>1</sup> See Exhibit 6-A for the receiver locations.

<sup>2</sup> Total Project nighttime operational noise levels as shown on Table 7-4.

<sup>3</sup> Reference noise level measurement locations as shown on Exhibit 5-A.

<sup>4</sup> Observed nighttime ambient noise levels as shown on Table 5-1.

<sup>5</sup> Represents the combined ambient conditions plus the Project activities.

<sup>6</sup> The noise level increase expected with the addition of the proposed Project activities.

<sup>7</sup> Significance increase criteria as shown on Table 4-1.

## 7.7 OFF-SITE TRAFFIC NOISE ANALYSIS

Traffic generated by the operation of the proposed Project will influence the traffic noise levels in surrounding off-site areas and at the Project site. The off-site Project-related traffic represents an incremental increase to the existing roadway volumes, which is not expected to generate a barely perceptible noise level increase of 3 dBA CNEL at nearby sensitive land uses adjacent to study area roadways, since a doubling of the existing traffic volumes would be required to generate a 3 dBA CNEL increase. Due to the low traffic volumes generated by the Project, the off-site traffic noise levels generated by the Project are considered less than significant and no further analysis is required.

## 8 CONSTRUCTION ANALYSIS

This section analyzes potential impacts resulting from the short-term construction activities associated with the development of the Project. Exhibit 8-A shows the construction activity boundaries in relation to the nearest sensitive receiver locations previously described in Section 6. According to Section 5-29.09 of the Municipal Code states: *No person, while engaged in construction, remodeling, digging, grading, demolition or any other related building activity, shall operate any tool, equipment or machine in a manner that produces loud noise that disturbs a person of normal sensitivity who works or resides in the vicinity, or a Police or Code Enforcement Officer, on any weekday except between the hours of 7:00 a.m. and 6:00 p.m. or on Saturday or Sunday between the hours of 9:00 a.m. and 6:00 p.m.* (12)

In addition, since neither the City of Ontario General Plan or County Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers for CEQA analysis purposes. Therefore, a numerical construction threshold based on Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual is used for analysis of daytime construction impacts. The FTA considers a daytime exterior construction noise level of 80 dBA  $L_{eq}$  as a reasonable threshold for noise sensitive residential land use. (8 p. 179).

### 8.1 CONSTRUCTION NOISE LEVELS

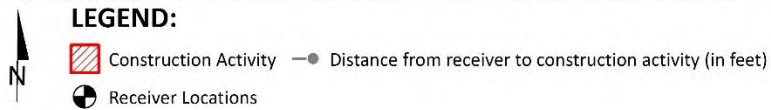
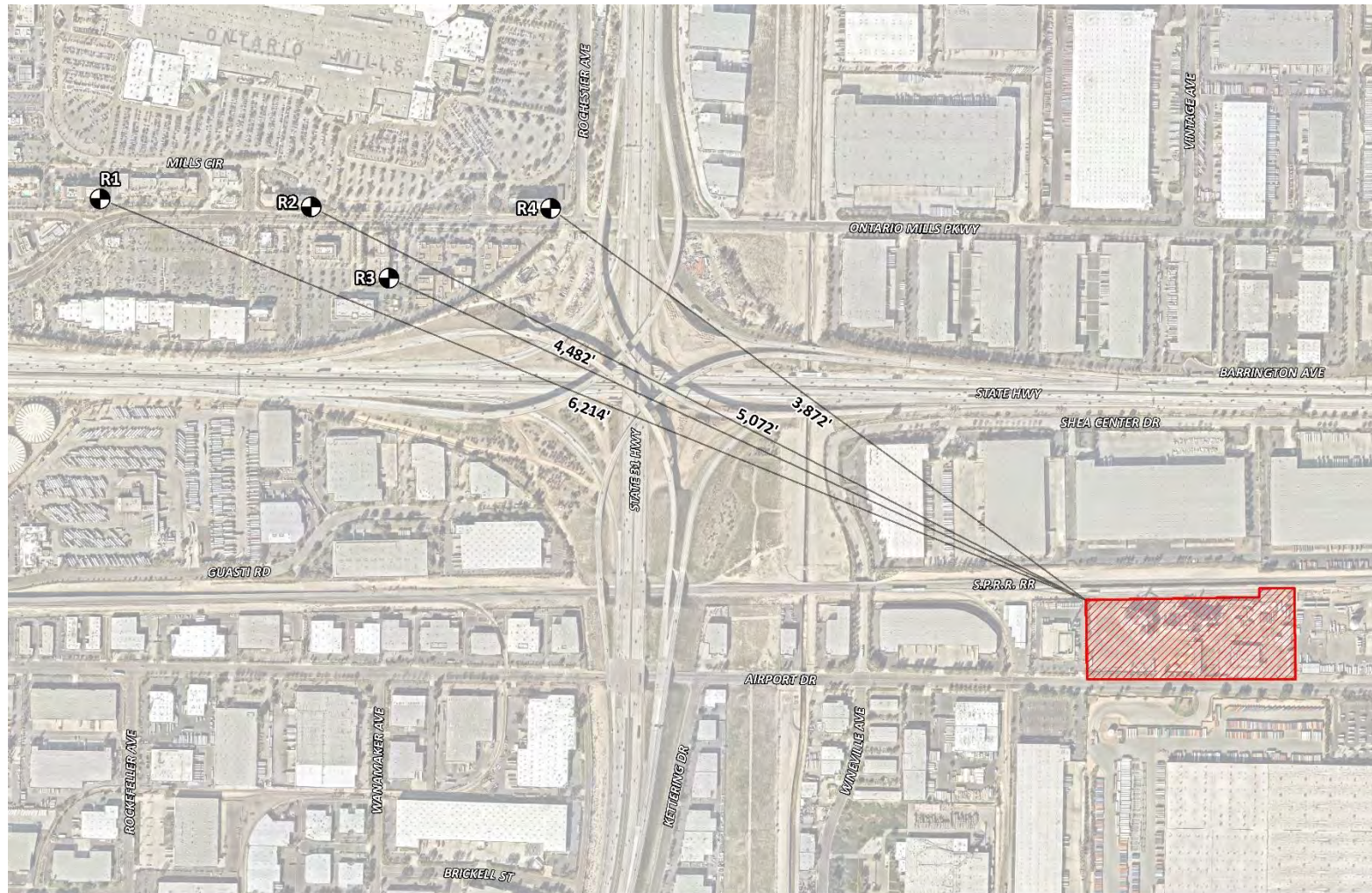
The FTA *Transit Noise and Vibration Impact Assessment Manual* recognizes that construction projects are accomplished in several different stages and outlines the procedures for assessing noise impacts during construction. Each stage has a specific equipment mix, depending on the work to be completed during that stage. As a result of the equipment mix, each stage has its own noise characteristics; some stages have higher continuous noise levels than others, and some have higher impact noise levels than others. The Project construction activities are expected to occur in the following stages:

- Demolition
- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating

### 8.2 CONSTRUCTION REFERENCE NOISE LEVELS

To describe construction noise activities, this construction noise analysis was prepared using reference construction equipment noise levels from the Federal Highway Administration (FHWA) published the Roadway Construction Noise Model (RCNM), which includes a national database of construction equipment reference noise emission levels. (21) The RCNM equipment database, provides a comprehensive list of the noise generating characteristics for specific types of construction equipment. In addition, the database provides an acoustical usage factor to estimate the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation.

**EXHIBIT 8-A: CONSTRUCTION NOISE SOURCE LOCATIONS**



### 8.3 CONSTRUCTION NOISE ANALYSIS

Using the reference construction equipment noise levels and the CadnaA noise prediction model, calculations of the Project construction noise level impacts at the nearby sensitive receiver locations were completed. Consistent with FTA guidance for general construction noise assessment, Table 8-1 presents the combined noise levels for the loudest construction equipment, assuming they operate at the same time. As shown on Table 8-2, the construction noise levels are expected to range from 27.6 to 38.6 dBA  $L_{eq}$  at the nearby receiver locations. Appendix 8.1 includes the detailed CadnaA construction noise model inputs.

**TABLE 8-1: CONSTRUCTION REFERENCE NOISE LEVELS**

Construction Stage	Reference Construction Activity	Reference Noise Level @ 50 Feet (dBA $L_{eq}$ ) <sup>1</sup>	Combined Noise Level (dBA $L_{eq}$ ) <sup>2</sup>	Combined Sound Power Level (PWL) <sup>3</sup>
Demolition	Demolition Equipment	82	83	115
	Backhoes	74		
	Hauling Trucks	72		
Site Preparation	Crawler Tractors	78	80	112
	Hauling Trucks	72		
	Rubber Tired Dozers	75		
Grading	Graders	81	83	115
	Excavators	77		
	Compactors	76		
Building Construction	Cranes	73	81	113
	Tractors	80		
	Welders	70		
Paving	Pavers	74	83	115
	Paving Equipment	82		
	Rollers	73		
Architectural Coating	Cranes	73	77	109
	Air Compressors	74		
	Generator Sets	70		

<sup>1</sup> FHWA Roadway Construction Noise Model (RCNM).

<sup>2</sup> Represents the combined noise level for all equipment assuming they operate at the same time consistent with FTA Transit Noise and Vibration Impact Assessment guidance.

<sup>3</sup> Sound power level represents the total amount of acoustical energy (noise level) produced by a sound source independent of distance or surroundings. Sound power levels calibrated using the CadnaA noise model at the reference distance to the noise source.

**TABLE 8-2: CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY**

Receiver Location <sup>1</sup>	Construction Noise Levels (dBA L <sub>eq</sub> )						
	Demolition	Site Preparation	Grading	Building Construction	Paving	Architectural Coating	Highest Levels <sup>2</sup>
R1	33.6	30.6	33.6	31.6	33.6	27.6	33.6
R2	35.9	32.9	35.9	33.9	35.9	29.9	35.9
R3	37.1	34.1	37.1	35.1	37.1	31.1	37.1
R4	38.6	35.6	38.6	36.6	38.6	32.6	38.6

<sup>1</sup> Noise receiver locations are shown on Exhibit 8-A.

<sup>2</sup> Construction noise level calculations based on distance from the construction activity, which is measured from the Project site boundary to the nearest receiver locations. CadnaA construction noise model inputs are included in Appendix 8.1.

## 8.4 CONSTRUCTION NOISE LEVEL COMPLIANCE

To evaluate whether the Project will generate potentially significant short-term noise levels at nearest receiver locations, a construction-related daytime noise level threshold of 80 dBA L<sub>eq</sub> is used as a reasonable threshold to assess the daytime construction noise level impacts. The construction noise analysis shows that the nearest receiver locations will satisfy the reasonable daytime 80 dBA L<sub>eq</sub> significance threshold during Project construction activities as shown on Table 8-3. Therefore, the noise impacts due to Project construction noise are considered *less than significant* at all receiver locations.

**TABLE 8-3: CONSTRUCTION NOISE LEVEL COMPLIANCE**

Receiver Location <sup>1</sup>	Construction Noise Levels (dBA L <sub>eq</sub> )		
	Highest Construction Noise Levels <sup>2</sup>	Threshold <sup>3</sup>	Threshold Exceeded? <sup>4</sup>
R1	33.6	80	No
R2	35.9	80	No
R3	37.1	80	No
R4	38.6	80	No

<sup>1</sup> Noise receiver locations are shown on Exhibit 8-A.

<sup>2</sup> Highest construction noise level calculations based on distance from the construction noise source activity to the nearest receiver locations as shown on Table 8-2.

<sup>3</sup> Construction noise level thresholds as shown on Table 4-1.

<sup>4</sup> Do the estimated Project construction noise levels exceed the construction noise level threshold?

## 8.5 NIGHTTIME CONCRETE POUR NOISE ANALYSIS

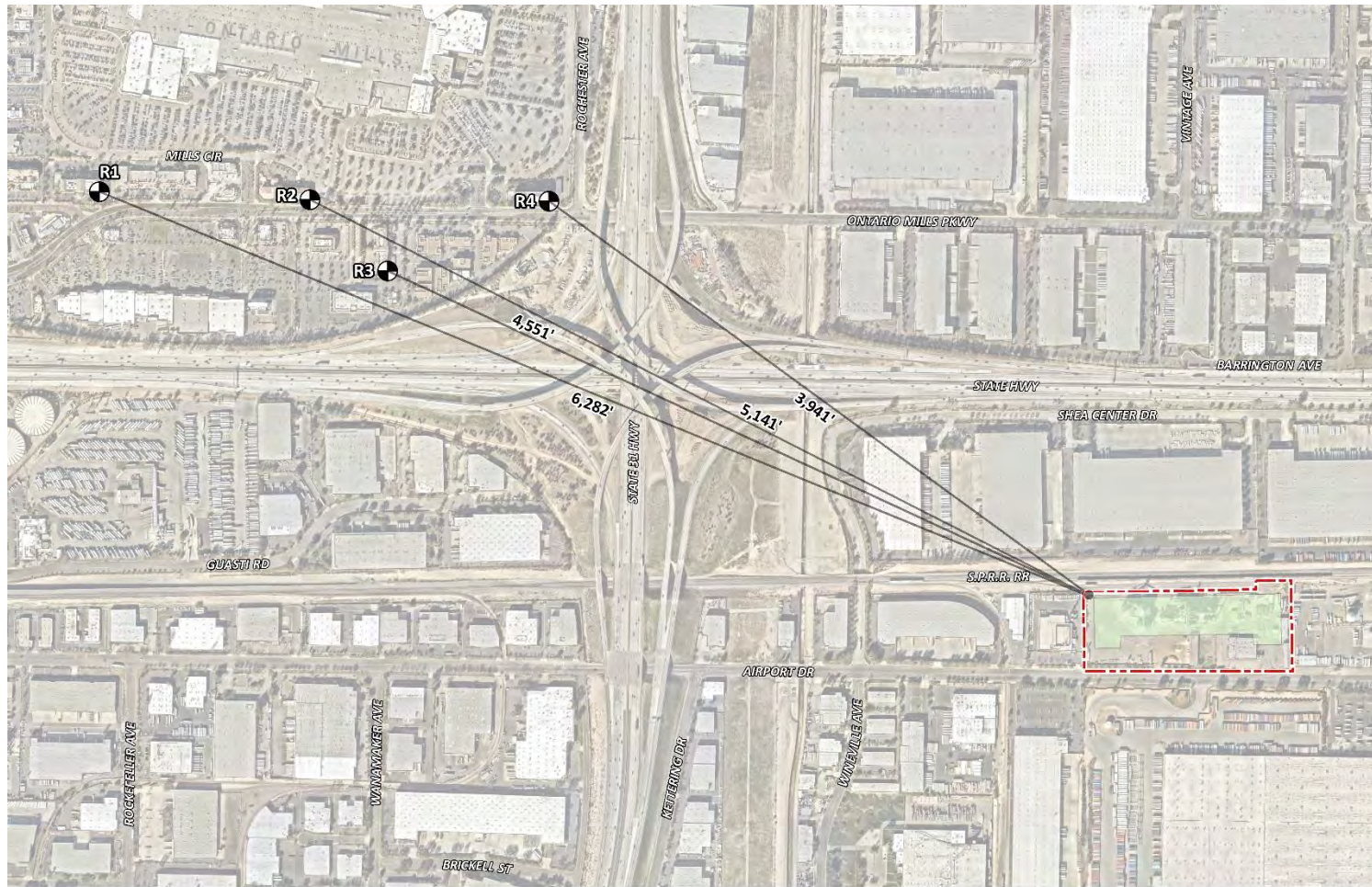
It is our understanding that nighttime concrete pouring activities will occur as a part of Project building construction activities. Nighttime concrete pouring activities are often used to support reduced concrete mixer truck transit times and lower air temperatures than during the daytime hours and are generally limited to the actual building pad area as shown on Exhibit 8-B. Since the nighttime concrete pours will take place outside the permitted City of Ontario Municipal Code, Section 5-29.09 hours of 7:00 a.m. and 6:00 p.m. or on Saturday or Sunday between the hours of 9:00 a.m. and 6:00 p.m. The Project Applicant will be required to obtain authorization for nighttime work from the City of Ontario. Any nighttime construction noise activities shall satisfy the noise limits outlined in Table 4-1.

### 8.5.1 NIGHTTIME CONCRETE POUR REFERENCE NOISE LEVEL MEASUREMENTS

To estimate the noise levels due to nighttime concrete pour activities, sample reference noise level measurements were taken during a nighttime concrete pour at a construction site. Urban Crossroads, Inc. collected short-term nighttime concrete pour reference noise level measurements during the noise-sensitive nighttime hours between 1:00 a.m. to 2:00 a.m. at 27334 San Bernardino Avenue in the City of Redlands. The reference noise levels describe the expected concrete pour noise sources that may include concrete mixer truck movements and pouring activities, concrete paving equipment, rear mounted concrete mixer truck backup alarms, engine idling, air brakes, generators, and workers communicating/whistling.

To describe the nighttime concrete pour noise levels associated with the construction of the 5355 East Airport Drive, this analysis relies on reference sound power level of 100.3 dBA  $L_w$ . While the Project noise levels will depend on the actual duration of activities and specific equipment fleet in use at the time of construction, the reference sound power level of 100.3 dBA  $L_w$  is used to describe the expected Project nighttime concrete pour noise activities.

**EXHIBIT 8-B: NIGHTTIME CONCRETE POUR NOISE SOURCE AND RECEIVER LOCATIONS**



### 8.5.2 NIGHTTIME CONCRETE POUR NOISE LEVEL COMPLIANCE

As shown on Table 8-4, the noise levels associated with the nighttime concrete pour activities are estimated to range from 18.6 to 24.1 dBA  $L_{eq}$  and will satisfy the City of Ontario nighttime stationary-source exterior hourly average  $L_{eq}$  residential noise level threshold adjusted to reflect the ambient noise conditions at all the receiver locations. Based on the results of this analysis, all nearest noise receiver locations will experience *less than significant* impacts due to the Project related nighttime concrete pour activities. Appendix 8.2 includes the CadnaA nighttime concrete pour noise model inputs.

**TABLE 8-4: NIGHTTIME CONCRETE POUR NOISE LEVEL COMPLIANCE**

Receiver Location <sup>1</sup>	Use	Construction Noise Levels (dBA $L_{eq}$ )		
		Paving Construction <sup>2</sup>	Nighttime Threshold <sup>3</sup>	Threshold Exceeded? <sup>4</sup>
R1	Residence	18.6	45	No
R2	Residence	21.2	45	No
R3	Residence	22.5	45	No
R4	Residence	24.1	45	No

<sup>1</sup> Noise receiver locations are shown on Exhibit 8-B.

<sup>2</sup> Paving construction noise level calculations based on distance from the construction noise source activity to nearby receiver locations.

<sup>3</sup> Exterior nighttime noise level standards as shown on Table 5-1.

<sup>4</sup> Do the estimated Project construction noise levels exceed the nighttime construction noise level threshold?

### 8.6 CONSTRUCTION VIBRATION ANALYSIS

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods employed. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Ground vibration levels associated with various types of construction equipment are summarized on Table 8-5. Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the potential for human response (annoyance) and building damage using the following vibration assessment methods defined by the FTA. To describe the vibration impacts the FTA provides the following equation:  $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$



**TABLE 8-5: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT**

Equipment	PPV (in/sec) at 25 feet
Small bulldozer	0.003
Jackhammer	0.035
Loaded Trucks	0.076
Large bulldozer	0.089

Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual

Table 8-6 presents the expected Project related vibration levels at the nearby receiver locations. At distances ranging from 3,872 to 6,214 feet from Project construction activities, construction vibration velocity levels are estimated to be 0.000 in/sec PPV. Based on maximum acceptable continuous vibration threshold of 0.3 PPV (in/sec), the typical Project construction vibration levels will fall below the building damage thresholds at all the noise sensitive receiver locations. Therefore, the Project-related vibration impacts are considered *less than significant* during typical construction activities at the Project site.

Moreover, the vibration levels reported at the sensitive receiver locations are unlikely to be sustained during the entire construction period but will occur rather only during the times that heavy construction equipment is operating adjacent to the Project site perimeter.

**TABLE 8-6: PROJECT CONSTRUCTION VIBRATION LEVELS**

Receiver <sup>1</sup>	Distance to Const. Activity (Feet) <sup>2</sup>	Typical Construction Vibration Levels PPV (in/sec) <sup>3</sup>					Thresholds PPV (in/sec) <sup>4</sup>	Thresholds Exceeded? <sup>5</sup>
		Small bulldozer	Jackhammer	Loaded Trucks	Large bulldozer	Highest Vibration Level		
R1	6,214'	0.000	0.000	0.000	0.000	0.000	0.3	No
R2	5,072'	0.000	0.000	0.000	0.000	0.000	0.3	No
R3	4,482'	0.000	0.000	0.000	0.000	0.000	0.3	No
R4	3,872'	0.000	0.000	0.000	0.000	0.000	0.3	No

<sup>1</sup> Receiver locations are shown on Exhibit 8-A.<sup>2</sup> Distance from receiver location to Project construction boundary (Project site boundary).<sup>3</sup> Based on the Vibration Source Levels of Construction Equipment (Table 8-4).<sup>4</sup> Caltrans Transportation and Construction Vibration Guidance Manual, April 2020, Table 19, p. 38.<sup>5</sup> Does the peak vibration exceed the acceptable vibration thresholds?

"PPV" = Peak Particle Velocity

## 9 REFERENCES

1. **State of California.** *California Environmental Quality Act, Environmental Checklist Form Appendix G.* 2021.
2. **California Department of Transportation Environmental Program.** *Technical Noise Supplement - A Technical Supplement to the Traffic Noise Analysis Protocol.* Sacramento, CA : s.n., September 2013.
3. **Environmental Protection Agency Office of Noise Abatement and Control.** *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety.* March 1974. EPA/ONAC 550/9/74-004.
4. **U.S. Department of Transportation, Federal Highway Administration, Office of Environment and Planning, Noise and Air Quality Branch.** *Highway Traffic Noise Analysis and Abatement Policy and Guidance.* December 2011.
5. **U.S. Department of Transportation Federal Highway Administration.** *Highway Noise Barrier Design Handbook.* 2001.
6. **U.S. Department of Transportation, Federal Highway Administration.** *Highway Traffic Noise in the United States, Problem and Response.* April 2000. p. 3.
7. **U.S. Environmental Protection Agency Office of Noise Abatement and Control.** *Noise Effects Handbook-A Desk Reference to Health and Welfare Effects of Noise.* October 1979 (revised July 1981). EPA 550/9/82/106.
8. **U.S. Department of Transportation, Federal Transit Administration.** *Transit Noise and Vibration Impact Assessment Manual.* September 2018.
9. **Office of Planning and Research.** *State of California General Plan Guidelines.* October 2019.
10. **City of Ontario.** *The Ontario Plan Safety Section, S4, Noise Hazards.* March 2014.
11. —. *The Ontario Plan Draft EIR.* April 2009.
12. —. *Municipal Code, Chapter 29, Section 5- Noise.*
13. **California Department of Transportation.** *Transportation and Construction Vibration Guidance Manual.* April 2020.
14. **City of Ontario.** *Ontario International Airport Land Use Compatibility Plan.* July 2018.
15. **California Court of Appeal.** *Gray v. County of Madera, F053661.* 167 Cal.App.4th 1099; - Cal.Rptr.3d, October 2008.
16. **Federal Interagency Committee on Noise.** *Federal Agency Review of Selected Airport Noise Analysis Issues.* August 1992.
17. **California Department of Transportation.** *Technical Noise Supplement.* November 2009.
18. **American National Standards Institute (ANSI).** *Specification for Sound Level Meters ANSI S1.4-2014/IEC 61672-1:2013.*
19. **U.S. Department of Transportation, Federal Highway Administration, Office of Environment and Planning.** *FHWA Roadway Construction Noise Model.* January, 2006.

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## 10 CERTIFICATIONS

The contents of this noise study report represent an accurate depiction of the noise environment and impacts associated with the proposed 5355 East Airport Drive Project. The information contained in this noise study report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 584-3148.

Bill Lawson, P.E., INCE  
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### EDUCATION

Master of Science in Civil and Environmental Engineering  
California Polytechnic State University, San Luis Obispo • December, 1993

Bachelor of Science in City and Regional Planning  
California Polytechnic State University, San Luis Obispo • June, 1992

### PROFESSIONAL REGISTRATIONS

PE – Registered Professional Traffic Engineer – TR 2537 • January, 2009  
AICP – American Institute of Certified Planners – 013011 • June, 1997–January 1, 2012  
PTP – Professional Transportation Planner • May, 2007 – May, 2013  
INCE – Institute of Noise Control Engineering • March, 2004

### PROFESSIONAL AFFILIATIONS

ASA – Acoustical Society of America  
ITE – Institute of Transportation Engineers

### PROFESSIONAL CERTIFICATIONS

Certified Acoustical Consultant – County of San Diego • March, 2018  
Certified Acoustical Consultant – County of Orange • February, 2011  
FHWA-NHI-142051 Highway Traffic Noise Certificate of Training • February, 2013

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**APPENDIX 3.1:**  
**CITY OF ONTARIO MUNICIPAL CODE**

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## CHAPTER 29: NOISE

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- 5-29.01 Declaration of findings and policy
- 5-29.02 Definitions
- 5-29.03 Designated noise zones
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- 5-29.09 Construction activity noise regulations
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- 5-29.15 Noise level measurement
- 5-29.16 Prima facie violation
- 5-29.17 Penalty
- 5-29.18 Enforcement and administration
- 5-29.19 City Manager waiver
- 5-29.20 Noise abatement program

### **Sec. 5-29.01. Declaration of findings and policy.**

It is hereby found and declared that:

(a) The making and creation of excessive, unnecessary or unusually loud noises within the limits of the City is a condition that has existed for some time, however, the extent and volume of such noises is increasing;

(b) The making, creation or maintenance of such excessive, unnecessary, unnatural or unusually loud noises that are prolonged, unusual and unnatural in their time, place and use affect and are a detriment to public health, comfort, convenience, safety, welfare and prosperity of the residents of the City; and

(c) The necessity in the public interest for the provisions and prohibitions hereinafter contained and enacted, is declared as a matter of legislative determination and public policy, and it is further declared



that the provisions and prohibitions hereinafter contained and enacted are in pursuance of and for the purpose of securing and promoting the public health, comfort, convenience, safety, welfare and prosperity and the peace and quiet of the residents of the City.

(§ 2, Ord. 2888, eff. March 6, 2008)

### **Sec. 5-29.02. Definitions.**

As used in this chapter, specific words and phrases are defined as follows:

(a) "Ambient noise level" shall mean the all-encompassing noise level associated with a given environment and is a composite of sounds from all sources, excluding the alleged offensive noise or excessive sound, at the location and approximate time at which a comparison with the alleged offensive noise is to be made.

(b) "Applicable (noise) zone" shall mean the noise zone category based on the actual use of the property, provided that the actual use is a legal use in the City.

(c) "A-weighted sound level" shall mean the sound pressure level in decibels (dBAs) as measured with a sound level meter using the A-weighted filter network (scale) at slow response and at a pressure of twenty (20) micropascals. The A-weighted filter de-emphasizes the very low and a very high frequency component of sound in a manner similar to the response of the human ear, and is a numerical method of rating human judgment of loudness.

(d) "Decibel (dBA)" shall mean a unit for measuring the amplitude of a sound, equal to twenty (20) times the logarithm to the base ten (10) of the ratio of pressure of the sound measured to the reference pressure of twenty (20) micropascals.

(e) "Equivalent sound or noise level (Leq)" shall mean the International Electrotechnical Commission (IEC) 60804 Standard for measurement, or the most recent revision thereof, for the sound level corresponding to a steady state noise level over a given sample period with the same amount of acoustic energy as the actual time varying noise level or the energy average noise level during the sample period. The measurement period for the purposes of this chapter is fifteen (15) minutes.

(f) "Impulsive noise" shall mean a noise of short duration usually less than one (1) second and of high intensity, with an abrupt onset and rapid decay. Such objectionable noises may also be repetitive.

(g) "Intrusive noise" shall mean that noise that intrudes over and above the ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, time of occurrence and tonal information content, as well as the prevailing ambient noise level.

(h) "Maintenance" shall mean the upkeep, repair or preservation of existing property or structures.

(i) "Noise" shall mean any unwanted sound or sound that is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing or is otherwise annoying.

(j) "Noise level (sound level)" shall mean the weighted sound pressure level obtained by use of a sound level meter having a standard frequency filter for attenuating part of the sound spectrum. For purposes of this chapter, all noise levels (sound levels) shall be A-weighted sound pressure level.

(k) "Noise (sound) level meter" shall mean an instrument, including a microphone, an amplifier, an output meter and frequency weighting networks for the measurement and determination of noise and sound levels. For the purposes of this chapter, the sound level meter must meet the International Electrotechnical Commission (IEC) 60651 and 60804 Standards, or the most recent revisions thereof, for Type 1 sound level meters or an instrument and the associated recording and analyzing equipment that will provide equivalent data.

(§ 2, Ord. 2888, eff. March 6, 2008)

### Sec. 5-29.03. Designated noise zones.

The properties hereinafter described shall be assigned to the following noise zones:

Noise Zone I:	All single-family residential properties;
Noise Zone II:	All multi-family residential properties and mobile home parks;
Noise Zone III:	All commercial property;
Noise Zone IV:	The residential portion of mixed use properties;
Noise Zone V:	All manufacturing or industrial properties and all other uses.

The actual use of the property, and not necessarily its zoning designation, shall be the determining factor in establishing whether a property is in Noise Zone I, II, III, IV or V, provided that the actual use is a legal use within the applicable zone.

(§ 2, Ord. 2888, eff. March 6, 2008)

### Sec. 5-29.04. Exterior noise standards.

(a) The following exterior noise standards, unless otherwise specifically indicated, shall apply to all properties within a designated noise zone.

<b><i>Allowable Exterior Noise Level (1)</i></b>		<b><i>Allowed Equivalent Noise Level, Leq. (2)</i></b>	
<b><i>Noise Zone</i></b>	<b><i>Type of Land Use</i></b>	<b><i>7 a.m. to 10 p.m.</i></b>	<b><i>10 p.m. to 7 a.m.</i></b>
I	Single-Family Residential	65 dBA	45 dBA
II	Multi-Family Residential, Mobile Home Parks	65 dBA	50 dBA
III	Commercial Property	65 dBA	60 dBA
IV	Residential Portion of Mixed Use	70 dBA	70 dBA
V	Manufacturing and Industrial, Other Uses	70 dBA	70 dBA

(1) If the ambient noise level exceeds the resulting standard, the ambient noise level shall be the standard.

(2) Measurements for compliance are made on the affected property pursuant to § 5-29.15.

(b) It is unlawful for any person at any location within the incorporated area of the City to create noise, or to allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, which noise causes the noise level, when measured at any location on any other property, to exceed either of the following:

(1) The noise standard for the applicable zone for any fifteen-minute (15) period; and

(2) A maximum instantaneous (single instance) noise level equal to the value of the noise standard plus twenty (20) dBA for any period of time (measured using A-weighted slow response).

(c) In the event the ambient noise level exceeds the noise standard, the maximum allowable noise level under such category shall be increased to reflect the maximum ambient noise level.

(d) The Noise Zone IV standard shall apply to that portion of residential property falling within one hundred (100) feet of a commercial property or use, if the noise originates from that commercial property or use.

(e) If the measurement location is on a boundary between two (2) different noise zones, the lower noise level standard applicable to the noise zone shall apply.

(§ 2, Ord. 2888, eff. March 6, 2008)

### **Sec. 5-29.05. Interior noise standards.**

(a) The following interior noise standards, unless otherwise specifically indicated, shall apply to all properties within a designated noise zone.

<b>Allowable Interior Noise Level (1)</b>		<b>Allowed Equivalent Noise Level, Leq. (2)</b>	
<b>Noise Zone</b>	<b>Type of Land Use</b>	<b>7 a.m. to 10 p.m.</b>	<b>10 p.m. to 7 a.m.</b>
I	Single-Family Residential	45 dBA	40 dBA
II	Multi-Family Residential, Mobile Home Parks	45 dBA	40 dBA
IV	Residential Portion of Mixed Use	45 dBA	40 dBA

(1) If the ambient noise level exceeds the resulting standard, the ambient noise level shall be the standard.

(2) Measurements for compliance are made on the affected property pursuant to § 5-29.15.

(b) It is unlawful for any person at any location within the incorporated area of the City to create noise, or to allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, which noise causes the noise level, when measured at any location on any other property, to exceed either of the following:

(1) The noise standard for the applicable zone for any fifteen-minute (15) period;

(2) A maximum instantaneous (single instance) noise level equal to the value of the noise standard plus twenty (20) dBA for any period of time (measured using A-weighted slow response).

(c) In the event the ambient noise level exceeds the noise standard, the maximum allowable noise level under such category shall be increased to reflect the maximum ambient noise level.

(d) The Noise Zone IV standard shall apply to that portion of residential property falling within one hundred (100) feet of a commercial property or use, if the noise originates from that commercial property or use.

(e) If the measurement location is on a boundary between two (2) different noise zones, the lower noise level standard applicable to the noise zone shall apply.

(§ 2, Ord. 2888, eff. March 6, 2008)

### **Sec. 5-29.06. Exemptions.**

The following activities shall be exempted from the provisions of this chapter:

(a) Any activity conducted on public property, or on private property with the consent of the owner, by any public entity or its officers, employees, representatives, agents, subcontractors, permittees, licensees or lessees that the public entity has authorized are exempt from the provisions of this chapter. This includes, without limitation, sporting and recreational activities that are sponsored, co-sponsored, permitted or allowed by the City or any school district within the City's jurisdictional boundaries. This also includes, without limitation, occasional outdoor gatherings, public dances, shows or sporting and entertainment events, provided such events are conducted pursuant to an approval, authorization, contract, lease, permit or sublease by the appropriate public entity, specifically the planning commission or City Council;

(b) Occasional outdoor gatherings, public dances, show, sporting and entertainment events, provided said events are conducted pursuant to a permit or license issued by the appropriate jurisdiction relative to the staging of said events;

(c) Any mechanical device, apparatus or equipment used, related to or connected with emergency machinery, vehicle, work or warning alarm or bell, provided the sounding of any bell or alarm on any building or motor vehicle shall terminate its operation within forty-five (45) minutes in any hour of its being activated;

(d) Noise sources associated with construction, repair, remodeling, demolition or grading of any real property. Such activities shall instead be subject to the provisions of § 5-29.09;

(e) Noise sources associated with construction, repair, remodeling, demolition or grading of public rights-of-way or during authorized seismic surveys;

(f) All mechanical devices, apparatus or equipment associated with agriculture operations provided that:

(1) Operations do not take place between 8:00 p.m. and 7:00 a.m.;

(2) Such operations and equipment are utilized for the protection or salvage of agricultural crops during periods of potential or actual frost damage or other adverse weather conditions; or

(3) Such operations and equipment are associated with agricultural pest control through pesticide application, provided the application is made in accordance with permits issued by or regulations enforced by the California Department of Agriculture;

(g) Noise sources associated with the maintenance of real property. Such activities shall instead be subject to the provisions of § 5-29.08;

(h) Any activity to the extent regulation thereof has been preempted by state or federal law;

(i) Any noise sources associated with people and/or music associated with a party at a residential property. Such noise shall be subject to the provisions of OMC § 5-29.07;

(j) Any noise source emanating from an ice cream truck within the City. Such noise shall be subject to the provisions of OMC § 4-18.04;

(k) Any noise sources associated with barking dogs or other intermittent noises made by animals on any property within the City. Such noise shall be subject to the provisions of OMC Chapter 1, Title 6;

(l) Noise sources related to uses approved by a permit or development agreement adopted prior to the date of adoption of this chapter and that contains acoustic or noise standard conditions of approval. This exemption shall only be applicable during the effective period of the City-approved permit or development agreement.

(§ 2, Ord. 2888, eff. March 6, 2008)

### **Sec. 5-29.07. Loud and disturbing noise.**

(a) It is unlawful for any person or property owner within the City to make, cause or allow to be made any loud, excessive, impulsive or intrusive noise, disturbance or commotion that disturbs the peace or quiet of any area or that causes discomfort or annoyance to any reasonable person of normal sensitivities in the area, after a Police or Code Enforcement Officer has first requested that the person or property owner cease and desist from making such noise. The types of loud, disturbing, excessive, impulsive or intrusive noise may include, but shall not be limited to, yelling, shouting, hooting, whistling, singing, playing a musical instrument, or emitting or transmitting any loud music or noise from any mechanical or electrical sound making or sound-amplifying device.

(b) The factors, standards, and conditions that may be considered in determining whether a violation of the provisions of this section has been committed, included, but not limited to, the following:

- (1) The level of the noise;
- (2) The level and intensity of the background (ambient) noise, if any;
- (3) The proximity of the noise to residential or commercial sleeping areas;
- (4) The nature and zoning of the area within which the noise emanates;
- (5) The density of inhabitation of the area within which the noise emanates;
- (6) The time of day and night the noise occurs;
- (7) The duration of the noise;
- (8) Whether the noise is constant, recurrent or intermittent;
- (9) Whether the noise is produced by a commercial or noncommercial activity; and
- (10) Whether the use is lawful under the provisions of Title 5 of this Code and whether the noise is one that could reasonably be expected from the activity or allowed use.

(§ 2, Ord. 2888, eff. March 6, 2008)

### **Sec. 5-29.08. Real property maintenance noise regulations.**

(a) No person, while engaged in maintenance of real property, shall operate any tool, equipment or machine in a manner that produces loud noise that disturbs a person of normal sensitivity who works or resides in the vicinity, or a Police or Code Enforcement Officer, except between the hours of 8:00 a.m. and 6:00 p.m.

(b) Trimming or pruning that requires the use of chainsaws or mulching machines shall only be allowed between the hours of 8:00 a.m. and 6:00 p.m. on a weekday and between the hours of 9:00 a.m. and 5:00 p.m. on Saturday or Sunday.

(c) The use of electrical or gasoline powered blowers, such as commonly used by gardeners or other persons for cleaning lawns, yards, driveways, gutters and other property shall only be allowed between the hours of 8:00 a.m. and 6:00 p.m. on a weekday and between the hours of 9:00 a.m. and 5:00 p.m. on Saturday or Sunday.

(d) No landowner, gardener, property maintenance service, contractor, subcontractor or employer shall permit or allow any person or persons working under his or her direction or control to operate any tool, equipment or machine in violation of the provisions of this section.

(e) Exceptions. The provisions of this section shall not apply to the following:

(1) Emergency property maintenance required by the building official;

(2) The maintenance, repair or improvement of any public work or facility by public employees, by any person or persons acting pursuant to a public works contract, or by any person or persons performing such work or pursuant to the direction of, or on behalf of, any public agency; provided, however, this exception shall not apply to the City, or its employees, contractors or agents, unless:

(i) The City Manager or department head determines that the maintenance, repair or improvement is immediately necessary to maintain public service,

(ii) The maintenance, repair or improvement is of a nature that cannot feasibly be conducted during normal business hours, or

(iii) The City Council has approved project specifications, contract provisions, or an environmental document that specifically authorizes maintenance during hours of the day that would otherwise be prohibited pursuant to this section; and

(3) Any maintenance that complies with the noise limits specified in § 5-29.04.

(§ 2, Ord. 2888, eff. March 6, 2008)

#### **Sec. 5-29.09. Construction activity noise regulations.**

(a) No person, while engaged in construction, remodeling, digging, grading, demolition or any other related building activity, shall operate any tool, equipment or machine in a manner that produces loud noise that disturbs a person of normal sensitivity who works or resides in the vicinity, or a Police or Code Enforcement Officer, on any weekday except between the hours of 7:00 a.m. and 6:00 p.m. or on Saturday or Sunday between the hours of 9:00 a.m. and 6:00 p.m.

(b) No landowner, construction company owner, contractor, subcontractor, or employer shall permit or allow any person or persons working under their direction and control to operate any tool, equipment or machine in violation of the provisions of this section.

(c) Exceptions.

(1) The provisions of this section shall not apply to emergency construction work performed by a private party when authorized by the City Manager or his or her designee;

(2) The maintenance, repair or improvement of any public work or facility by public employees, by any person or persons acting pursuant to a public works contract, or by any person or persons performing such work or pursuant to the direction of, or on behalf of, any public agency; provided, however, this exception shall not apply to the City, or its employees, contractors or agents, unless:

(i) The City Manager or a department head determines that the maintenance, repair or improvement is immediately necessary to maintain public services,

(ii) The maintenance, repair or improvement is of a nature that cannot feasibly be conducted during normal business hours, or

(iii) The City Council has approved project specifications, contract provisions, or an environmental document that specifically authorizes construction during hours of the day that would otherwise be prohibited pursuant to this section; and

(3) Any construction that complies with the noise limits specified in §§ 5-29.04 or 5-29.05.

(§ 2, Ord. 2888, eff. March 6, 2008)

#### **Sec. 5-29.10. Other public agency exceptions.**

The provisions of this chapter shall not be construed to prohibit any work at different hours by or under the direction of any other public agency or public or private utility companies in cases of necessity or emergency.

(§ 2, Ord. 2888, eff. March 6, 2008)

#### **Sec. 5-29.11. Schools, day care centers, churches, libraries, museums, health care institutions; Special provisions.**

It is unlawful for any person to create any noise that causes the outdoor noise level at any school, day care center, hospital or similar health care institution, church, library or museum while the same is in use, to exceed the noise standards specified in § 5-29.04 prescribed for the assigned Noise Zone I.

(§ 2, Ord. 2888, eff. March 6, 2008)

#### **Sec. 5-29.12. Sound amplifying equipment.**

Loudspeakers, sound amplifiers, public address systems or similar devices used to amplify sounds shall be subject to the provisions of § 5-29.13. Such sound amplifying equipment shall not be construed to include electronic devices, including but not limited to, radios, tape players, tape recorders, compact disc players, MP3 players, electric keyboards, music synthesizers, record players or televisions, which are designed and operated for personal use, or used entirely within a building and are not designed or used to convey the human voice, music or any other sound to an audience outside such building, or which are used in vehicles and heard only by occupants of the vehicle in which installed.

(§ 2, Ord. 2888, eff. March 6, 2008)

#### **Sec. 5-29.13. Amplified sound.**

(a) The City Council enacts the following legislation for the sole purpose of securing and promoting the public health, comfort, safety and welfare for its citizenry. While recognizing that the use of sound amplifying equipment may be entitled to certain protection by the constitutional rights of freedom of speech and assembly, the City Council finds that in order to protect the public safety and the correlative rights of the citizens of this community to privacy and freedom from public nuisance of loud and unnecessary noise, reasonable regulation of the time, place and manner of the use of amplifying equipment is necessary. In no event shall approval or authorization required herein be withheld by reason of the constitutionally protected content of any material proposed to be broadcast through amplifying equipment.

(b) It is unlawful for any person, other than personnel of law enforcement or governmental agencies, to install, use or operate a loudspeaker or sound amplifying device in a fixed or movable position or mounted upon any vehicle within the City for the purpose of giving instructions, directions, talks, addresses or lectures to any persons or assemblages of persons in or upon any street, alley, sidewalk, park, place or public property without a permit to do so from the Police Chief or his or her designee. Notwithstanding any other provision of this chapter, the provisions of this section shall also apply to the use of sound amplifying equipment upon public or private property when used in connection with outdoor or indoor public or private events, whether or not admission is charged or food or beverages are sold, when such activity is to be attended by more than one hundred (100) persons and the noise emanating from the event will be audible at the property plane, or in the case of a street dance or concert on the nearest residential property. Those activities listed in § 5-29.06(a) are exempt from the requirements of this section.

(c) The Police Chief or his or her designee is authorized to approve and issue permits under this section.

(d) An application for a permit required by this section shall be filed with the Police Chief at least sixteen (16) days and no more than one hundred twenty (120) days prior to the date on which the sound amplifying equipment is intended to be used. Applications for events covered by the First Amendment of the United States Constitution are exempt from the time requirements of this section if it is shown that circumstances require a shorter filing period and the event will not constitute an unsafe condition. The application shall contain the following information:

- (1) The name, address and telephone number of both the owner and the user of the sound amplifying equipment;
- (2) The license number, if a sound truck is to be used;
- (3) A general description of the sound amplifying equipment which is to be used;
- (4) Whether sound amplifying equipment will be used for commercial or noncommercial purpose;
- (5) The dates and times upon and within which, and the streets or property over or upon which, the equipment is proposed to be operated;
- (6) The name or names of one (1) or more persons who will be present during the conduct of any activities for which registration is sought and who will have authority to reduce the volume of any sound amplifying equipment during the course of the activities if required pursuant to this chapter and, otherwise, to insure compliance with the provisions of this chapter;
- (7) A statement by the applicant that he or she is willing and able to comply with the provisions of this chapter and the conditions of the permit; and
- (8) A sketch of the area or facilities within which the activities are to be conducted, with approximate dimensions and illustration of the location and orientation of all sound-amplifying equipment.

(e) The Police Chief shall deny the permit application or revoke any permit if the chief finds any of the following:

- (1) The application contains materially false or intentionally misleading information;
- (2) The use of sound amplifying equipment at an event or activity proposed will be located in or upon a premises, building or structure that is hazardous to the health or safety of the employees or patrons of the premises, business, activity, or event, or the general public, under the standards established by the Uniform Building or Fire Codes, or other applicable codes, as set forth in OMC Titles 4 and 8;
- (3) The use of sound amplifying equipment at an event or activity proposed in or upon a premises, building or structure that lacks adequate on-site parking for participants attending the proposed event or activity under the applicable standards set forth in OMC Title 9;
- (4) The conditions of any motor vehicle movement are such that, in his or her opinion, the use of the equipment would constitute an unreasonable interference with traffic safety;
- (5) The conditions of pedestrian movement are such that the use of the equipment would constitute a detriment to traffic safety;
- (6) The application submitted by the applicant reveals that the applicant would violate the provisions of this section or any other provision of federal, state and/or local law;
- (7) The applicant is unwilling or unable to comply with the provisions of this chapter or any conditions imposed upon any permit issued;



(8) There had already been a permitted event at the intended location, or within a two hundred (200) yard radius of the intended location and the prior permitted event was located on residentially zoned property or on a street, alley, public parking lot or neighborhood park within three (3) months prior to the intended event. Community parks are exempt from this subsection (8); or

(9) The applicant or location has had previous violations within the past calendar year, and in the judgment of the Police Chief, issuance would be contrary to the intent of this section.

(f) In determining whether the use of the equipment would constitute an unreasonable interference with or detriment to traffic safety, the Police Chief shall consider, but shall not necessarily be limited to:

(1) The volumes, patterns and speed of vehicular and pedestrian traffic in the proposed area of use;

(2) The relationship of the proposed use of equipment and potential impacts upon traffic patterns;

(3) Availability of sufficient room for the operation of the equipment without significantly interfering with the traffic patterns;

(4) Proximity to schools, playgrounds and similar facilities where use of such equipment might attract children into traffic patterns; or

(5) Proximity to busy intersections or other potentially hazardous conditions where use of such equipment might constitute a hazard by reason of its tendency to distract drivers of vehicles or pedestrians.

(g) Issuance or denial.

(1) If the application is approved, the Police Chief shall return an approved copy of the application to the applicant and shall issue a permit. The permit shall constitute permission for the use of the sound amplifying equipment as requested.

(2) Any application filed shall be either approved or disapproved within five (5) days of the filing thereof.

(3) If the application is disapproved, the Police Chief shall return a disapproved copy forthwith to the applicant with a written statement on the reason for disapproval.

(i) Any person aggrieved by a decision of the Police Chief or his or her designee may file an appeal to the City Manager. A complete and proper appeal shall be filed with the City Clerk within ten (10) calendar days of the action that is the subject of the appeal. If the applicant fails to file an appeal within the ten (10) day filing period provided herein, denial shall take effect immediately upon expiration of such filing period. All appeals shall be in writing and shall contain the following information: (a) name(s) of the person filing the appeal, (b) a brief statement in ordinary and concise language of the relief sought, and (c) the signatures of all parties named as appellants and their mailing addresses. After receiving the appeal, the City Clerk shall immediately forward the matter to the City Manager for handling.

(ii) The City Manager shall, upon receipt of the appeal, set the matter for hearing before the City Manager or a hearing officer. Any hearing officer shall be a licensed attorney or recognized mediator designated by the City Manager. The hearing shall be set for not more than ten (10) calendar days after the receipt of the appeal unless a longer time is requested or consented to by the appellant. Notice of such hearing shall be given in writing and mailed at least five (5) calendar days prior to the date of the hearing, by U.S. mail, with a proof of service attached, addressed to the address listed on the permit application, or the written appeal if different from the permit application. The notice shall state the grounds of the complaint or reason for the denial and shall state the time and place where such hearing will be held.

(iii) The City Manager or hearing officer shall, within ten (10) calendar days following the conclusion of the hearing, make a written finding and decision, which shall be delivered to the City and the appellant by first class mail. Notwithstanding any provision in this Code, the decision of the City Manager or hearing officer shall be the final administrative decision of the City. Any party dissatisfied with the decision of the City Manager or hearing officer may seek review of such decision under the provisions of Code Civil Procedure, §§ 1094.5 and 1094.8, as amended from time to time.

(h) In addition to any other provisions of this Code, the use of sound-amplifying equipment and sound trucks in the City shall be subject to the following regulations:

(1) The only sounds permitted are music and human speech;

(2) Sound shall not be emitted within one hundred (100) yards of hospitals, churches, schools and City Hall;

(3) The volume of sound shall be controlled so that it will not be audible for a distance in excess of one hundred (100) feet from the sound amplifying equipment or sound truck, and so that the volume is not unreasonably loud, raucous, jarring, disturbing or a nuisance to persons within the range of allowed audibility; or

(4) The sound amplifying equipment or sound truck shall not be used between the hours of 8:00 p.m. and 8:00 a.m.

(§ 2, Ord. 2888, eff. March 6, 2008)

#### **Sec. 5-29.14. Motor vehicles.**

The use of any motor vehicle in such a condition as to create excessive, impulsive or intrusive noises is prohibited. The discharge into the open air of the exhaust of any internal combustion engine, stationary or mounted on wheels, motorboat or motor vehicle, including motor cycle, whether or not discharged through a muffler or other similar device, which discharge creates excessive, unusual, impulsive or intrusive noise is prohibited. Motor vehicles shall comply with the noise regulations of the California Vehicle Code.

(§ 2, Ord. 2888, eff. March 6, 2008)

#### **Sec. 5-29.15. Noise level measurement.**

(a) The location selected for measuring exterior noise levels in a residential area shall be at any part of a private yard, patio, deck or balcony normally used for human activity and identified by the owner or, if occupied by someone other than the owner, the occupant of the affected property as suspected of exceeding the noise level standard. This location may be the closest point in the private yard or patio, or on the deck or balcony, to the noise source, but should not be located in nonhuman activity areas such as trash container storage areas, planter beds, above or contacting a property line fence, or other areas not normally used as part of the yard, patio, deck or balcony. The location selected for measuring exterior noise levels in a nonresidential area shall be at the closest point to the noise source. The measurement microphone height shall be five (5) feet above finish elevation or, in the case of a deck or balcony, the measurement microphone height shall be five (5) feet above the finished floor level.

(b) The location selected for measuring interior noise levels shall be made within the affected residential unit. The measurements shall be made at a point at least four (4) feet from the wall, ceiling or floor, or within the frame of a window opening, nearest the noise source. The measurements shall be made with windows in an open position.

(c) Any decibel measurement made pursuant to the provisions of this chapter shall be measured in decibels (dBAs) as measured with a sound level meter using the A-weighted sound pressure level.

(§ 2, Ord. 2888, eff. March 6, 2008)

#### **Sec. 5-29.16. Prima facie violation.**

Any noise exceeding the noise level standard as specified in §§ 5-29.04 and 5-29.05, shall be deemed to be prima facie evidence of a violation of the provisions of this chapter.

(§ 2, Ord. 2888, eff. March 6, 2008)

#### **Sec. 5-29.17. Penalty.**

(a) Any person who negligently or knowingly violates any provision of this chapter shall be guilty of an infraction and upon conviction shall be punishable by a fine specified in OMC § 1-2.01. Each day a violation occurs shall constitute a separate offense and shall be punishable as such.

(b) Any person who negligently or knowingly violates any provision of this chapter may also be subject to fine(s) specified in the administrative citation schedule of fines set forth in OMC § 1-5.04. The manner of issuing administrative citations shall comply with all the procedures specified in OMC Chapter 5, Title 1.

(c) As an additional remedy, the operation or maintenance of any device, instrument, vehicle or machinery in violation of any provisions of this chapter, which operation or maintenance causes or creates sound levels exceeding the allowable standards as specified in this chapter, shall be deemed and is declared to be a public nuisance and may be subject to abatement by a restraining order or injunction issued by a court of competent jurisdiction.

(d) Any violation of this chapter is declared to be a public nuisance and may be abated in accordance with law. The expense of enforcing this chapter is declared to be public nuisance and may be by resolution of the City Council declared to be a lien and special assessment against the property on which such nuisance is maintained, and any such charge shall also be a personal obligation of the property owner.

(§ 2, Ord. 2888, eff. March 6, 2008)

#### **Sec. 5-29.18. Enforcement and administration.**

(a) It shall be the responsibility of Police or Code Enforcement Officers to enforce the provisions of this chapter and to perform all other functions required by this chapter. Such duties shall include, but not be limited to investigating potential violations, issuing warning notices and citations, and providing evidence to the City prosecutor for legal action.

(b) For violations of § 5-29.07, Police or Code Enforcement Officers shall obtain a declaration under penalty of perjury from two (2) declarants living in separate households within a sixty (60) day period stating in detail all of the following:

(1) That the declarant is a resident of a residential neighborhood located within two hundred (200) yards of the noise source; and

(2) Within the past month declarant has heard noise for substantially long periods to the extreme annoyance of the declarant.

(3) Declarations from two (2) declarants are required to prove a violation of § 5-29.07, but are not required to prove that a person has violated any other provision of this chapter.

(§ 2, Ord. 2888, eff. March 6, 2008)

#### **Sec. 5-29.19. City Manager waiver.**

The City Manager is authorized to grant a temporary waiver to the provisions of this chapter for a period of time necessary to correct the violations of this chapter, if such temporary waiver would be in the public interest and there is no feasible and prudent alternative to the activity, or the method of conducting the activity, for which the temporary waiver is sought. This time period may include a commitment to a program that includes placing necessary orders and entering into necessary contracts within thirty (30) days for repair or installation.

(§ 2, Ord. 2888, eff. March 6, 2008)

**Sec. 5-29.20. Noise abatement program.**

(a) In circumstances where adopted community-wide noise standards and policies prove impractical in controlling noise generated from a specific source, the City Council may establish a noise abatement program that recognizes the characteristics of the noise source and affected property and that incorporates specialized mitigation measures.

(b) Noise abatement programs shall set forth in detail the approved terms, conditions and requirements for achieving maximum compliance with noise standards and policies. Said terms, conditions and requirements may include, but shall not be limited to, limitations, restrictions, or prohibitions on operating hours, location of operations, and the types of equipment.

(§ 2, Ord. 2888, eff. March 6, 2008)

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**APPENDIX 5.1:**  
**STUDY AREA PHOTOS**

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# JN: 14539 Study Area Photos

L1\_E  
34, 4' 13.650000"117, 33' 19.070000"



L1\_N  
34, 4' 13.610000"117, 33' 19.180000"



L1\_S  
34, 4' 13.560000"117, 33' 19.150000"



L1\_W  
34, 4' 13.660000"117, 33' 19.070000"



L2\_E  
34, 4' 12.440000"117, 33' 3.660000"



L2\_N  
34, 4' 12.590000"117, 33' 3.750000"





## JN: 14539 Study Area Photos

L2\_S  
34, 4' 12.470000"117, 33' 3.640000"



L2\_W  
34, 4' 12.470000"117, 33' 3.720000"



L3\_E  
34, 4' 9.290000"117, 32' 58.420000"



L3\_N  
34, 4' 9.400000"117, 32' 58.420000"



L3\_S  
34, 4' 9.250000"117, 32' 58.390000"



L3\_W  
34, 4' 9.280000"117, 32' 58.470000"



## JN: 14539 Study Area Photos

L4\_E  
34, 4' 12.660000"117, 32' 48.530000"



L4\_N  
34, 4' 12.620000"117, 32' 48.610000"



L4\_S  
34, 4' 12.670000"117, 32' 48.560000"



L4\_W  
34, 4' 12.640000"117, 32' 48.500000"



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**APPENDIX 5.2:**  
**NOISE LEVEL MEASUREMENT WORKSHEETS**

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## 24-Hour Noise Level Measurement Summary

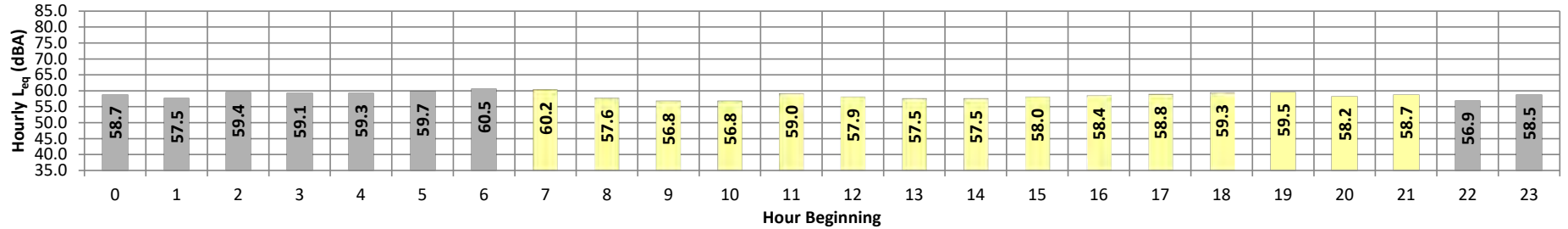
Date: Tuesday, March 8, 2022  
Project: IE Distribution Center

Location: L1 - Located northwest of the Project site near Ayres Hotel  
Source: Ontario Mills Mall at 4395 Ontario Mills Parkway.

Meter: Piccolo II

JN: 14539  
Analyst: A. Khan

Hourly  $L_{eq}$  dBA Readings (unadjusted)



Timeframe	Hour	$L_{eq}$	$L_{max}$	$L_{min}$	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	$L_{eq}$	Adj.	Adj. $L_{eq}$
Night	0	58.7	61.8	57.1	61.6	61.3	60.7	60.3	59.1	58.4	57.5	57.3	57.2	58.7	10.0	68.7
	1	57.5	61.4	55.6	61.2	60.9	60.3	59.7	57.8	56.9	56.0	55.9	55.7	57.5	10.0	67.5
	2	59.4	63.3	57.5	63.1	62.9	62.3	61.4	59.6	58.9	57.9	57.7	57.6	59.4	10.0	69.4
	3	59.1	62.5	57.4	62.2	61.9	61.3	60.8	59.5	58.7	57.9	57.7	57.5	59.1	10.0	69.1
	4	59.3	63.0	57.4	62.7	62.4	61.8	61.2	59.6	58.8	57.8	57.7	57.5	59.3	10.0	69.3
	5	59.7	65.4	57.6	65.0	64.6	63.3	62.2	59.7	58.8	57.9	57.8	57.6	59.7	10.0	69.7
Day	6	60.5	66.9	57.5	66.5	66.1	64.4	63.3	60.8	59.2	57.9	57.7	57.5	60.5	10.0	70.5
	7	60.2	66.2	56.2	65.7	65.2	63.9	63.1	60.8	59.3	56.8	56.5	56.3	60.2	0.0	60.2
	8	57.6	64.1	53.5	63.7	63.1	61.5	60.5	58.2	56.4	54.3	53.9	53.6	57.6	0.0	57.6
	9	56.8	63.8	51.7	63.4	62.8	61.4	60.5	57.4	55.2	52.6	52.2	51.8	56.8	0.0	56.8
	10	56.8	63.2	52.2	62.8	62.2	61.0	60.0	57.4	55.5	53.0	52.6	52.3	56.8	0.0	56.8
	11	59.0	67.1	54.2	66.7	66.3	64.2	62.5	58.8	57.2	55.0	54.6	54.3	59.0	0.0	59.0
	12	57.9	65.6	53.0	65.2	64.8	62.4	60.8	58.2	56.6	54.1	53.5	53.1	57.9	0.0	57.9
	13	57.5	65.6	51.9	65.2	64.3	62.4	61.0	57.6	55.8	53.0	52.5	52.1	57.5	0.0	57.5
	14	57.5	64.4	52.7	64.0	63.5	61.9	60.8	57.8	56.1	53.7	53.3	52.8	57.5	0.0	57.5
	15	58.0	65.3	52.5	64.8	64.2	62.8	61.5	58.4	56.5	53.9	53.4	52.7	58.0	0.0	58.0
	16	58.4	67.8	52.6	67.3	66.4	63.9	61.8	57.9	56.1	53.5	53.0	52.7	58.4	0.0	58.4
	17	58.8	67.6	54.0	66.9	65.8	63.0	61.6	59.0	57.3	54.9	54.5	54.1	58.8	0.0	58.8
	18	59.3	66.5	54.8	66.1	65.5	64.0	62.7	59.6	57.8	55.6	55.3	54.9	59.3	0.0	59.3
	19	59.5	69.8	53.7	69.3	68.3	65.7	63.3	58.4	56.5	54.4	54.1	53.8	59.5	5.0	64.5
	20	58.2	68.0	52.7	67.4	66.4	63.3	61.7	57.8	55.8	53.6	53.2	52.8	58.2	5.0	63.2
	21	58.7	68.6	51.3	68.3	67.9	66.1	63.4	57.0	54.7	52.2	51.7	51.4	58.7	5.0	63.7
Night	22	56.9	64.2	52.7	63.9	63.4	61.9	60.9	57.0	54.9	53.1	52.9	52.7	56.9	10.0	66.9
Night	23	58.5	63.3	56.1	62.9	62.7	61.9	61.3	58.8	57.7	56.6	56.4	56.2	58.5	10.0	68.5
Timeframe	Hour	$L_{eq}$	$L_{max}$	$L_{min}$	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	$L_{eq}$ (dBA)		
Day	Min	56.8	63.2	51.3	62.8	62.2	61.0	60.0	57.0	54.7	52.2	51.7	51.4	24-Hour	Daytime (7am-10pm)	Nighttime (10pm-7am)
	Max	60.2	69.8	56.2	69.3	68.3	66.1	63.4	60.8	59.3	56.8	56.5	56.3			
Energy Average		58.4	Average:		65.8	65.1	63.2	61.7	58.3	56.4	54.0	53.6	53.3	58.6	58.4	59.0
Night	Min	56.9	61.4	52.7	61.2	60.9	60.3	59.7	57.0	54.9	53.1	52.9	52.7			
	Max	60.5	66.9	57.6	66.5	66.1	64.4	63.3	60.8	59.2	57.9	57.8	57.6			
Energy Average		59.0	Average:		63.2	62.9	62.0	61.2	59.1	58.0	57.0	56.8	56.6			

## 24-Hour Noise Level Measurement Summary

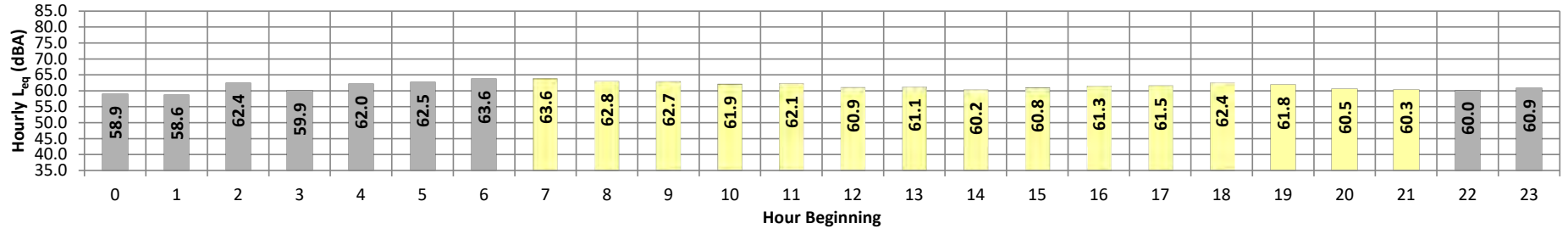
Date: Tuesday, March 8, 2022  
Project: IE Distribution Center

Location: L2 - Located northwest of the Project site near Hampton Inn & Suites Ontario at 4500 Ontario Mills Parkway.

Meter: Piccolo II

JN: 14539  
Analyst: A. Khan

Hourly  $L_{eq}$  dBA Readings (unadjusted)



Timeframe	Hour	$L_{eq}$	$L_{max}$	$L_{min}$	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	$L_{eq}$	Adj.	Adj. $L_{eq}$
Night	0	58.9	65.8	55.4	65.6	65.1	63.4	62.2	58.8	57.4	56.0	55.8	55.5	58.9	10.0	68.9
	1	58.6	67.0	54.5	66.7	66.1	63.8	61.7	58.2	56.5	55.1	54.8	54.6	58.6	10.0	68.6
	2	62.4	73.3	56.8	73.0	71.9	68.3	65.6	61.2	59.1	57.4	57.2	56.9	62.4	10.0	72.4
	3	59.9	68.0	56.6	67.7	67.0	64.6	62.9	59.6	58.2	57.1	56.9	56.7	59.9	10.0	69.9
	4	62.0	73.1	57.2	72.7	71.5	67.3	64.7	60.6	58.8	57.6	57.4	57.2	62.0	10.0	72.0
	5	62.5	70.9	58.9	70.6	69.8	67.2	65.5	62.4	60.6	59.3	59.1	59.0	62.5	10.0	72.5
Day	6	63.6	72.3	57.9	71.9	71.3	69.3	67.8	63.7	60.7	58.4	58.2	57.9	63.6	10.0	73.6
	7	63.6	72.5	56.1	72.1	71.4	69.2	68.1	64.1	60.6	56.8	56.5	56.2	63.6	0.0	63.6
	8	62.8	71.7	54.4	71.3	70.7	68.7	67.2	63.3	59.4	55.4	54.9	54.5	62.8	0.0	62.8
	9	62.7	72.6	53.1	72.2	71.5	69.0	67.2	62.7	58.6	54.2	53.6	53.2	62.7	0.0	62.7
	10	61.9	71.7	53.6	71.2	70.4	67.9	65.9	62.1	58.8	54.5	54.1	53.7	61.9	0.0	61.9
	11	62.1	70.9	55.1	70.4	69.6	67.6	66.4	62.4	59.3	56.1	55.7	55.3	62.1	0.0	62.1
	12	60.9	70.9	52.6	69.9	69.2	67.0	65.0	60.9	58.0	53.9	53.2	52.7	60.9	0.0	60.9
	13	61.1	71.3	52.1	70.8	70.0	67.2	65.1	60.8	57.4	53.3	52.7	52.3	61.1	0.0	61.1
	14	60.2	69.0	51.2	68.7	68.1	66.0	64.6	60.6	57.2	52.6	51.8	51.4	60.2	0.0	60.2
	15	60.8	69.9	52.1	69.5	68.8	66.7	65.2	61.2	57.7	53.4	52.7	52.2	60.8	0.0	60.8
	16	61.3	70.5	52.6	70.1	69.4	67.1	65.6	61.7	58.3	53.8	53.2	52.7	61.3	0.0	61.3
	17	61.5	70.1	54.4	69.7	69.1	66.9	65.3	61.9	59.1	55.6	55.0	54.5	61.5	0.0	61.5
	18	62.4	71.8	55.6	71.4	70.9	68.5	66.5	62.0	59.4	56.4	56.0	55.7	62.4	0.0	62.4
	19	61.8	72.5	53.9	72.1	71.3	68.0	65.8	60.7	57.8	54.7	54.3	54.0	61.8	5.0	66.8
	20	60.5	69.2	53.4	68.8	68.3	66.3	64.8	60.7	57.3	54.2	53.8	53.5	60.5	5.0	65.5
	21	60.3	70.4	52.4	69.9	69.1	66.5	64.9	60.0	56.3	53.2	52.9	52.5	60.3	5.0	65.3
Night	22	60.0	69.8	53.5	69.5	69.1	66.5	64.2	59.0	56.3	54.1	53.8	53.6	60.0	10.0	70.0
Night	23	60.9	71.0	56.0	70.3	69.4	66.4	64.4	60.0	58.0	56.6	56.3	56.1	60.9	10.0	70.9
Timeframe	Hour	$L_{eq}$	$L_{max}$	$L_{min}$	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	$L_{eq}$ (dBA)		
Day	Min	60.2	69.0	51.2	68.7	68.1	66.0	64.6	60.0	56.3	52.6	51.8	51.4	24-Hour	Daytime (7am-10pm)	Nighttime (10pm-7am)
	Max	63.6	72.6	56.1	72.2	71.5	69.2	68.1	64.1	60.6	56.8	56.5	56.2			
Energy Average		61.7	Average:		70.5	69.8	67.5	65.8	61.7	58.3	54.5	54.0	53.6	61.5	61.7	61.3
Night	Min	58.6	65.8	53.5	65.6	65.1	63.4	61.7	58.2	56.3	54.1	53.8	53.6			
	Max	63.6	73.3	58.9	73.0	71.9	69.3	67.8	63.7	60.7	59.3	59.1	59.0			
Energy Average		61.3	Average:		69.8	69.0	66.3	64.3	60.4	58.4	56.8	56.6	56.4			

### 24-Hour Noise Level Measurement Summary

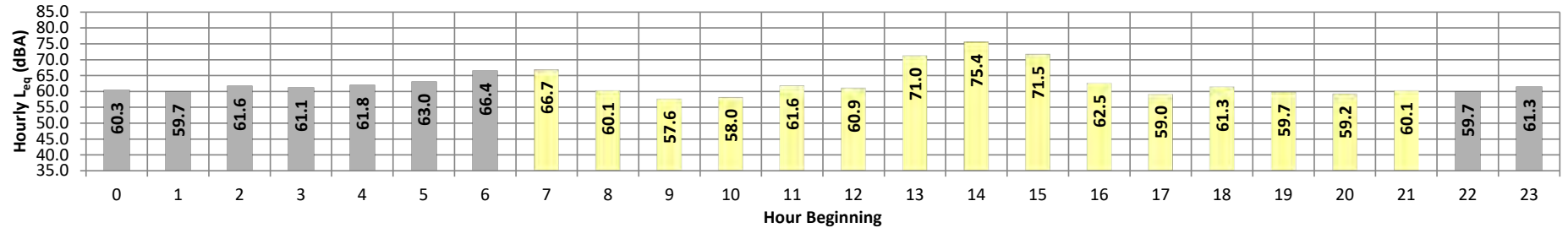
Date: Tuesday, March 8, 2022  
Project: IE Distribution Center

Location: L3 - Located northwest of the Project site near Country Inn & Suites by Radisson, Ontario at Ontario Mills at 4674 Ontario Mills Parkway.  
Source:

Meter: Piccolo II

JN: 14539  
Analyst: A. Khan

*Hourly L<sub>eq</sub> dBA Readings (unadjusted)*



Timeframe	Hour	L <sub>eq</sub>	L <sub>max</sub>	L <sub>min</sub>	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L <sub>eq</sub>	Adj.	Adj. L <sub>eq</sub>	
Night	0	60.3	63.8	58.3	63.4	63.0	62.3	61.9	60.8	60.0	58.8	58.6	58.4	60.3	10.0	70.3	
	1	59.7	63.0	57.6	62.7	62.5	61.8	61.4	60.2	59.3	58.2	57.9	57.7	59.7	10.0	69.7	
	2	61.6	64.9	59.4	64.6	64.4	63.8	63.4	62.2	61.1	59.9	59.7	59.5	61.6	10.0	71.6	
	3	61.1	64.6	59.1	64.3	64.0	63.3	62.7	61.5	60.7	59.6	59.4	59.2	61.1	10.0	71.1	
	4	61.8	65.6	59.7	65.3	65.0	64.3	63.6	62.1	61.4	60.3	60.1	59.8	61.8	10.0	71.8	
	5	63.0	65.7	61.4	65.5	65.2	64.7	64.3	63.4	62.7	61.9	61.7	61.4	63.0	10.0	73.0	
Day	6	66.4	75.9	61.8	75.5	75.0	72.7	70.8	64.9	63.2	62.2	62.1	61.8	66.4	10.0	76.4	
	7	66.7	70.4	63.6	70.1	69.8	69.2	68.7	67.2	66.4	64.6	64.2	63.7	66.7	0.0	66.7	
	8	60.1	68.3	55.8	68.0	67.5	66.0	64.1	59.4	57.9	56.5	56.3	56.0	60.1	0.0	60.1	
	9	57.6	62.4	54.6	62.1	61.7	60.8	60.1	58.2	56.9	55.2	54.9	54.7	57.6	0.0	57.6	
	10	58.0	62.2	55.4	61.9	61.6	60.8	60.3	58.7	57.4	56.0	55.8	55.5	58.0	0.0	58.0	
	11	61.6	65.8	58.9	65.3	64.8	63.9	63.4	62.2	61.2	59.8	59.5	59.1	61.6	0.0	61.6	
	12	60.9	66.1	57.9	65.7	65.3	64.2	63.8	61.3	60.0	58.6	58.4	58.1	60.9	0.0	60.9	
	13	71.0	83.9	77.2	83.8	83.6	82.9	82.4	80.4	78.9	77.5	77.4	77.2	71.0	0.0	71.0	
	14	75.4	81.3	70.4	81.1	80.8	79.7	79.0	76.5	74.5	71.7	71.2	70.5	75.4	0.0	75.4	
	15	71.5	78.8	67.5	78.6	78.3	77.4	76.8	73.9	71.8	69.3	68.9	68.1	71.5	0.0	71.5	
	16	62.5	67.0	57.5	66.8	66.5	65.9	65.2	63.6	62.1	58.6	58.1	57.6	62.5	0.0	62.5	
	17	59.0	64.7	56.2	64.2	63.8	62.4	61.5	59.3	58.2	56.8	56.6	56.3	59.0	0.0	59.0	
	18	61.3	67.5	58.1	67.1	66.6	64.8	63.8	61.6	60.3	58.7	58.5	58.2	61.3	0.0	61.3	
	19	59.7	64.4	57.0	64.0	63.5	62.5	61.9	60.3	59.2	57.6	57.3	57.1	59.7	5.0	64.7	
	20	59.2	63.6	56.5	63.2	62.9	61.8	61.2	59.7	58.6	57.2	56.9	56.6	59.2	5.0	64.2	
	21	60.1	66.3	57.1	65.8	65.3	63.7	62.5	60.3	59.2	57.7	57.4	57.2	60.1	5.0	65.1	
Night	22	59.7	64.2	57.1	63.9	63.6	62.8	61.9	60.2	59.1	57.7	57.4	57.2	59.7	10.0	69.7	
	23	61.3	64.8	59.2	64.6	64.4	63.7	63.2	61.7	60.9	59.7	59.5	59.2	61.3	10.0	71.3	
Timeframe	Hour	L <sub>eq</sub>	L <sub>max</sub>	L <sub>min</sub>	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L <sub>eq</sub> (dBA)			
Day	Min	57.6	62.2	54.6	61.9	61.6	60.8	60.1	58.2	56.9	55.2	54.9	54.7	24-Hour	65.9	67.1	62.2
	Max	75.4	83.9	77.2	83.8	83.6	82.9	82.4	80.4	78.9	77.5	77.4	77.2				
Energy Average		67.1	Average:		68.5	68.1	67.1	66.3	64.2	62.8	61.1	60.7	60.4				
Night	Min	59.7	63.0	57.1	62.7	62.5	61.8	61.4	60.2	59.1	57.7	57.4	57.2				
	Max	66.4	75.9	61.8	75.5	75.0	72.7	70.8	64.9	63.2	62.2	62.1	61.8				
Energy Average		62.2	Average:		65.5	65.2	64.4	63.7	61.9	60.9	59.8	59.6	59.4				



## 24-Hour Noise Level Measurement Summary

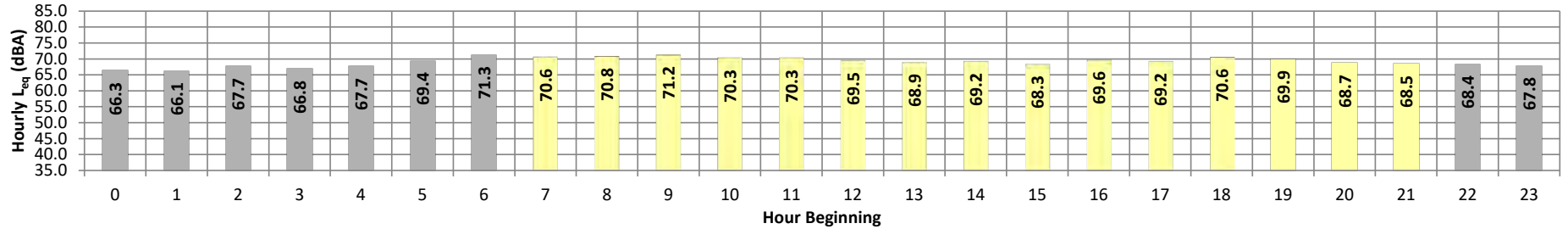
Date: Tuesday, March 8, 2022  
Project: IE Distribution Center

Location: L4 - Located northwest of the Project site near Hyatt Place  
Source: Ontario/Rancho Cucamonga at 4760 Mills Circle.

Meter: Piccolo II

JN: 14539  
Analyst: A. Khan

Hourly  $L_{eq}$  dBA Readings (unadjusted)



Timeframe	Hour	$L_{eq}$	$L_{max}$	$L_{min}$	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	$L_{eq}$	Adj.	Adj. $L_{eq}$
Night	0	66.3	74.6	62.4	74.0	73.1	71.0	69.5	66.1	64.5	62.9	62.7	62.5	66.3	10.0	76.3
	1	66.1	73.9	62.4	73.3	72.6	70.5	69.3	66.2	64.6	63.0	62.8	62.5	66.1	10.0	76.1
	2	67.7	76.8	63.3	76.2	75.3	72.6	70.8	67.4	65.7	63.8	63.6	63.4	67.7	10.0	77.7
	3	66.8	76.5	62.7	75.8	74.8	71.5	69.5	66.3	64.9	63.3	63.0	62.8	66.8	10.0	76.8
	4	67.7	75.6	64.2	75.0	74.1	72.1	70.6	67.7	66.3	64.7	64.5	64.3	67.7	10.0	77.7
	5	69.4	78.3	65.6	77.7	76.6	73.9	72.4	69.1	67.5	66.2	66.0	65.7	69.4	10.0	79.4
	6	71.3	81.9	65.8	81.5	80.5	77.0	74.7	70.2	68.0	66.4	66.2	65.9	71.3	10.0	81.3
Day	7	70.6	80.7	64.3	80.0	79.0	76.3	74.5	70.5	67.4	64.9	64.6	64.4	70.6	0.0	70.6
	8	70.8	81.1	65.4	80.6	79.6	76.1	73.9	70.3	68.0	66.0	65.7	65.5	70.8	0.0	70.8
	9	71.2	80.7	66.6	80.2	79.3	76.8	75.0	70.6	68.6	67.2	67.0	66.7	71.2	0.0	71.2
	10	70.3	80.5	65.8	79.8	78.5	75.3	73.4	69.7	67.8	66.3	66.0	65.8	70.3	0.0	70.3
	11	70.3	78.5	66.1	78.0	77.3	75.3	73.8	70.3	68.3	66.7	66.5	66.2	70.3	0.0	70.3
	12	69.5	77.1	65.8	76.6	75.9	73.9	72.6	69.7	67.8	66.3	66.1	65.8	69.5	0.0	69.5
	13	68.9	78.4	64.5	77.7	76.6	73.9	72.4	68.6	66.6	65.0	64.8	64.6	68.9	0.0	68.9
	14	69.2	78.5	65.0	78.0	77.0	74.2	72.2	69.0	67.0	65.5	65.3	65.1	69.2	0.0	69.2
	15	68.3	76.8	62.5	76.3	75.4	73.6	72.3	68.8	65.8	63.2	62.9	62.6	68.3	0.0	68.3
	16	69.6	78.8	63.8	78.4	77.5	75.2	73.5	69.7	66.9	64.5	64.2	63.9	69.6	0.0	69.6
	17	69.2	77.9	63.4	77.4	76.5	74.4	73.0	69.6	66.9	64.1	63.8	63.5	69.2	0.0	69.2
	18	70.6	80.3	65.7	79.7	78.8	76.0	74.2	70.1	67.8	66.3	66.1	65.8	70.6	0.0	70.6
	19	69.9	78.5	65.7	78.0	77.4	75.5	73.7	69.4	67.6	66.2	66.0	65.8	69.9	5.0	74.9
	20	68.7	75.2	65.8	74.8	74.2	72.2	71.3	68.9	67.6	66.4	66.2	65.9	68.7	5.0	73.7
	21	68.5	75.8	64.9	75.4	74.7	73.1	72.0	68.4	66.9	65.4	65.2	65.0	68.5	5.0	73.5
Night	22	68.4	77.0	63.9	76.6	75.9	74.1	72.3	67.8	66.1	64.4	64.2	64.0	68.4	10.0	78.4
Night	23	67.8	76.1	64.0	75.6	74.7	72.4	70.8	67.7	66.1	64.5	64.3	64.1	67.8	10.0	77.8
Timeframe	Hour	$L_{eq}$	$L_{max}$	$L_{min}$	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	$L_{eq}$ (dBA)		
Day	Min	68.3	75.2	62.5	74.8	74.2	72.2	71.3	68.4	65.8	63.2	62.9	62.6	24-Hour	Daytime (7am-10pm)	Nighttime (10pm-7am)
	Max	71.2	81.1	66.6	80.6	79.6	76.8	75.0	70.6	68.6	67.2	67.0	66.7			
Energy Average		69.8	Average:		78.1	77.2	74.8	73.2	69.6	67.4	65.6	65.4	65.1	<b>69.3</b>	<b>69.8</b>	<b>68.2</b>
Night	Min	66.1	73.9	62.4	73.3	72.6	70.5	69.3	66.1	64.5	62.9	62.7	62.5			
	Max	71.3	81.9	65.8	81.5	80.5	77.0	74.7	70.2	68.0	66.4	66.2	65.9			
Energy Average		68.2	Average:		76.2	75.3	72.8	71.1	67.6	66.0	64.4	64.1	63.9			

**APPENDIX 7.1:**  
**CADNAA OPERATIONAL NOISE MODEL INPUTS**

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# 14539 - IE Distribution Center #14

CadnaA Noise Prediction Model: 14539-02.cna

Date: 25.07.22

Analyst: S. Shami

## Calculation Configuration

Configuration	
Parameter	Value
<b>General</b>	
Max. Error (dB)	0.00
Max. Search Radius #(Unit,LEN)	2000.01
Min. Dist Src to Rcvr	0.00
<b>Partition</b>	
Raster Factor	0.50
Max. Length of Section #(Unit,LEN)	999.99
Min. Length of Section #(Unit,LEN)	1.01
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
<b>Ref. Time</b>	
Reference Time Day (min)	960.00
Reference Time Night (min)	480.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	5.00
Night-time Penalty (dB)	10.00
<b>DTM</b>	
Standard Height (m)	0.00
Model of Terrain	Triangulation
<b>Reflection</b>	
max. Order of Reflection	2
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rcvr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
<b>Industrial (ISO 9613)</b>	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Incl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature #(Unit,TEMP)	10
rel. Humidity (%)	70
Ground Absorption G	0.50
Wind Speed for Dir. #(Unit,SPEED)	3.0
<b>Roads (TNM)</b>	
<b>Railways (FTA/FRA)</b>	
<b>Aircraft (???)</b>	
<b>Strictly acc. to AzB</b>	

## Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height	Coordinates			
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type		X	Y	Z	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)	(ft)	(ft)	(ft)	
RECEIVERS	R1		22.1	22.1	28.7	65.0	45.0	0.0				5.00	a	6166354.34	2335548.36	5.00
RECEIVERS	R2		26.2	26.1	32.8	65.0	45.0	0.0				5.00	a	6167586.75	2335500.55	5.00
RECEIVERS	R3		27.4	27.3	34.0	65.0	45.0	0.0				5.00	a	6168040.49	2335084.87	5.00
RECEIVERS	R4		27.2	27.1	33.8	65.0	45.0	0.0				5.00	a	6168984.89	2335492.36	5.00

## Point Source(s)

Name	M.	ID	Result. PWL			Type	Lw / Li		Operating Time			Height	Coordinates			
			Day	Evening	Night		Value	norm.	Day	Special	Night		X	Y	Z	
			(dBA)	(dBA)	(dBA)		dB(A)	(min)	(min)	(min)	(ft)	(ft)	(ft)	(ft)		
POINTSOURCE		TRASH01	89.0	89.0	89.0	Lw	89.0		150.00	0.00	90.00	5.00	a	6173094.91	2332777.46	5.00
POINTSOURCE		TRASH02	89.0	89.0	89.0	Lw	89.0		150.00	0.00	90.00	5.00	a	6172317.38	2332781.06	5.00
POINTSOURCE		AC01	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6172196.56	2332896.19	50.00
POINTSOURCE		AC02	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6173241.85	2332919.06	50.00
POINTSOURCE		PARK01	87.8	87.8	87.8	Lw	87.8					5.00	a	6172137.90	2332843.70	5.00
POINTSOURCE		PARK02	87.8	87.8	87.8	Lw	87.8					5.00	a	6172137.12	2332947.90	5.00
POINTSOURCE		PARK03	87.8	87.8	87.8	Lw	87.8					5.00	a	6172133.27	2333035.12	5.00
POINTSOURCE		PARK04	87.8	87.8	87.8	Lw	87.8					5.00	a	6172127.86	2333143.17	5.00
POINTSOURCE		PARK05	87.8	87.8	87.8	Lw	87.8					5.00	a	6173305.95	2332942.58	5.00
POINTSOURCE		PARK06	87.8	87.8	87.8	Lw	87.8					5.00	a	6173305.95	2333040.09	5.00
POINTSOURCE		PARK07	87.8	87.8	87.8	Lw	87.8					5.00	a	6173303.27	2333139.40	5.00
POINTSOURCE		PARK08	87.8	87.8	87.8	Lw	87.8					5.00	a	6173299.69	2333226.18	5.00
POINTSOURCE		PARK09	87.8	87.8	87.8	Lw	87.8					5.00	a	6173256.74	2333243.18	5.00
POINTSOURCE		PARK10	87.8	87.8	87.8	Lw	87.8					5.00	a	6173166.38	2333243.18	5.00

### Line Source(s)

Name	M.	ID	Result. PWL			Result. PWL'			Lw / Li		Operating Time			Moving Pt. Src			Height		
			Day (dBA)	Evening (dBA)	Night (dBA)	Day (dBA)	Evening (dBA)	Night (dBA)	Type	Value	norm. dB(A)	Day (min)	Special (min)	Night (min)	Day	Evening	Night	Number (mph)	Speed (ft)
LINESOURCE		TRUCK01	93.2	93.2	93.2	73.8	73.8	73.8	Lw	93.2								8	a
LINESOURCE		TRUCK02	93.2	93.2	93.2	74.8	74.8	74.8	Lw	93.2								8	a

Name	Height		Coordinates			
	Begin (ft)	End (ft)	x (ft)	y (ft)	z (ft)	Ground (ft)
LINESOURCE	8.00	a	6173104.76	2332844.63	8.00	0.00
			6173286.17	2332846.24	8.00	0.00
			6173287.75	2332742.15	8.00	0.00
LINESOURCE	8.00	a	6172308.47	2332817.94	8.00	0.00
			6172152.71	2332813.00	8.00	0.00
			6172154.29	2332742.76	8.00	0.00

### Area Source(s)

Name	M.	ID	Result. PWL			Result. PWL''			Lw / Li		Operating Time			Height		
			Day (dBA)	Evening (dBA)	Night (dBA)	Day (dBA)	Evening (dBA)	Night (dBA)	Type	Value	norm. dB(A)	Day (min)	Special (min)	Night (min)	(ft)	
AREASOURCE		DOCK01	111.5	111.5	111.5	70.1	70.1	70.1	Lw	111.5					8	a

Name	Height		Coordinates			
	Begin (ft)	End (ft)	x (ft)	y (ft)	z (ft)	Ground (ft)
AREASOURCE	8.00	a	6172330.01	2332949.14	8.00	0.00
			6173102.54	2332961.81	8.00	0.00
			6173104.12	2332898.48	8.00	0.00
			6173105.70	2332765.51	8.00	0.00
			6172307.84	2332768.67	8.00	0.00
			6172309.27	2332880.67	8.00	0.00
			6172328.42	2332881.07	8.00	0.00

### Building(s)

Name	M.	ID	RB	Residents	Absorption	Height	Coordinates				
							Begin (ft)	x (ft)	y (ft)	z (ft)	Ground (ft)
BUILDING		BUILDING00001	x	0		45.00	a	6172170.12	2333172.35	45.00	0.00
								6173265.59	2333197.68	45.00	0.00
								6173268.76	2332898.48	45.00	0.00
								6173104.12	2332898.48	45.00	0.00
								6173102.54	2332961.81	45.00	0.00
								6172330.01	2332949.14	45.00	0.00
								6172328.42	2332881.07	45.00	0.00
								6172178.03	2332877.90	45.00	0.00

**APPENDIX 8.1:**  
**CADNAA CONSTRUCTION NOISE MODEL INPUTS**

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# 14539 - IE Distribution Center #14

CadnaA Noise Prediction Model: 14539-02 - Construction.cna

Date: 25.07.22

Analyst: S. Shami

## Calculation Configuration

Configuration	
Parameter	Value
<b>General</b>	
Max. Error (dB)	0.00
Max. Search Radius #(Unit,LEN)	2000.01
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section #(Unit,LEN)	999.99
Min. Length of Section #(Unit,LEN)	1.01
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	960.00
Reference Time Night (min)	480.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	5.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	0.00
Model of Terrain	Triangulation
<b>Reflection</b>	
max. Order of Reflection	2
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rcvr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Incl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature #(Unit,TEMP)	10
rel. Humidity (%)	70
Ground Absorption G	0.50
Wind Speed for Dir. #(Unit,SPEED)	3.0
Roads (TNM)	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

## Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height	Coordinates			
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type		X	Y	Z	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)	(ft)	(ft)	(ft)	
RECEIVERS		R1	33.6	33.6	40.3	65.0	45.0	0.0				5.00	a	6166354.34	2335548.36	5.00
RECEIVERS		R2	35.9	35.9	42.5	65.0	45.0	0.0				5.00	a	6167586.75	2335500.55	5.00
RECEIVERS		R3	37.1	37.1	43.8	65.0	45.0	0.0				5.00	a	6168040.49	2335084.87	5.00
RECEIVERS		R4	38.6	38.6	45.3	65.0	45.0	0.0				5.00	a	6168984.89	2335492.36	5.00

## Area Source(s)

Name	M.	ID	Result. PWL			Result. PWL''			Lw / Li			Operating Time			Height	
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night		
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(min)	(min)	(min)	(ft)	
SITEBOUNDARY		CONSTRUCTION	115.0	115.0	115.0	67.6	67.6	67.6	Lw	115					8	a

Name	Height		Coordinates			
	Begin	End	x	y	z	Ground
	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
SITEBOUNDARY	8.00	a	6172109.54	2333205.54	8.00	0.00
			6173121.48	2333222.49	8.00	0.00
			6173122.48	2333272.51	8.00	0.00
			6173325.40	2333275.95	8.00	0.00
			6173334.39	2332742.12	8.00	0.00
			6172116.20	2332742.78	8.00	0.00



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**APPENDIX 8.2:**  
**CADNAA CONCRETE POUR NOISE MODEL INPUTS**

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# 14539 - IE Distribution Center #14

CadnaA Noise Prediction Model: 14539-02 - ConcretePour.cna

Date: 25.07.22

Analyst: S. Shami

## Calculation Configuration

Configuration	
Parameter	Value
<b>General</b>	
Max. Error (dB)	0.00
Max. Search Radius #(Unit,LEN)	2000.01
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section #(Unit,LEN)	999.99
Min. Length of Section #(Unit,LEN)	1.01
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	960.00
Reference Time Night (min)	480.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	5.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	0.00
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	2
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rcvr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Incl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature #(Unit,TEMP)	10
rel. Humidity (%)	70
Ground Absorption G	0.50
Wind Speed for Dir. #(Unit,SPEED)	3.0
Roads (TNM)	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

## Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height	Coordinates			
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type		X	Y	Z	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)	(ft)	(ft)	(ft)	
RECEIVERS		R1	18.6	18.6	25.2	65.0	45.0	0.0				5.00	a	6166354.34	2335548.36	5.00
RECEIVERS		R2	21.2	21.2	27.9	65.0	45.0	0.0				5.00	a	6167586.75	2335500.55	5.00
RECEIVERS		R3	22.5	22.5	29.2	65.0	45.0	0.0				5.00	a	6168040.49	2335084.87	5.00
RECEIVERS		R4	24.1	24.1	30.7	65.0	45.0	0.0				5.00	a	6168984.89	2335492.36	5.00

## Area Source(s)

Name	M.	ID	Result. PWL			Result. PWL'			Lw / Li		Operating Time			Height	
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special		Night
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			(min)	(min)	(min)	(ft)	
BUILDING		CONCRETEPOUR	100.3	100.3	100.3	56.3	56.3	56.3	Lw	100.3				8	a

Name	Height		Coordinates			
	Begin	End	x	y	z	Ground
	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
BUILDING	8.00	a	6172170.12	2333172.35	8.00	0.00
			6173265.59	2333197.68	8.00	0.00
			6173268.76	2332898.48	8.00	0.00
			6173104.12	2332898.48	8.00	0.00
			6173102.54	2332961.81	8.00	0.00
			6172330.01	2332949.14	8.00	0.00
			6172328.42	2332881.07	8.00	0.00
			6172178.03	2332877.90	8.00	0.00

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January 3, 2023

Ms. Tracy Zinn  
T&B Planning, Inc.  
3200 El Camino Real, Suite 100  
Irvine, CA 92602

**IE DISTRIBUTION CENTER #14 VEHICLE MILES TRAVELED (VMT) ANALYSIS**

Ms. Tracy Zinn,

Urban Crossroads, Inc. is pleased to provide the following Vehicle Miles Traveled (VMT) Analysis for the IE Distribution Center #14 development (**Project**), which is located which is located at 5355 E. Airport Drive in the City of Ontario.

**PROJECT OVERVIEW**

It is our understanding that the Project consists of a single 270,377 square foot warehouse building. The proposed Project has been evaluated assuming a mix of warehousing (243,303 square feet or 90% of the total square footage) and high-cube cold storage use (27,034 square feet or 10% of the total square footage). The Project site is currently occupied and operating as a grain processing company and corn storage and distribution facility within warehousing space totaling 41,780 square feet. There are two driveways on Airport Drive. A preliminary site plan for the proposed Project is shown in Exhibit 1.

**EXHIBIT 1: PRELIMINARY SITE PLAN**



## BACKGROUND

Changes to California Environmental Quality Act (CEQA) Guidelines were adopted in December 2018, which require all lead agencies to adopt VMT as a replacement for automobile delay-based level of service (LOS) as the measure for identifying transportation impacts for land use projects. This statewide mandate went into effect July 1, 2020. To aid in this transition, the Governor's Office of Planning and Research (OPR) released a Technical Advisory on Evaluating Transportation Impacts in CEQA (December of 2018) (**Technical Advisory**) (1). Based on the Technical Advisory, the City of Ontario has developed and adopted their own VMT methodologies and thresholds, which were adopted by City Council in June 2020 (**City Guidelines**) (2). This VMT analysis has been developed based on the adopted City Guidelines.

## VMT SCREENING

City Guidelines identify Projects that meet certain VMT screening criteria may be presumed to result in a less than significant transportation impact. It is our understanding the City of Ontario utilizes the San Bernardino County Transportation Authority (SBCTA) VMT Screening Tool (**Screening Tool**). The Screening Tool allows users to select an assessor's parcel number (APN) to determine if a project's location meets one or more of the screening thresholds for land use projects identified in the City Guidelines. The City Guidelines lists the following VMT screening criteria:

- Transit Priority Area (TPA) Screening
- Low VMT Area Screening
- Project Type Screening

A land use project need only meet one of the above screening criteria to result in a less than significant impact.

### **STEP 1: TPA SCREENING**

Consistent with guidance identified in the City Guidelines, projects located within a Transit Priority Area (TPA) (i.e., within ½ mile of an existing "major transit stop"<sup>1</sup> or an existing stop along a "high-quality transit corridor"<sup>2</sup>) may be presumed to have a less than significant impact absent substantial evidence to the contrary. However, the presumption may not be appropriate if a project:

- Has a Floor Area Ratio (FAR) of less than 0.75;

---

<sup>1</sup> Pub. Resources Code, § 21064.3 ("Major transit stop" means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.").

<sup>2</sup> Pub. Resources Code, § 21155 ("For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.").

- Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking);
- Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization); or
- Replaces affordable residential units with a smaller number of moderate or high-income residential units.

The Screening Tool was utilized to locate the Project site and its proximity to a TPA. Results, as shown in Attachment A, the Project Site is not located within ½ mile of an existing major transit stop or along a high-quality transit corridor.

**TPA screening criteria is not met.**

### **STEP 2: LOW VMT AREA SCREENING**

The City Guidelines state that projects may be presumed to have a less than significant VMT impact if located in an already low VMT generating traffic analysis zones (TAZs) that generates a VMT per service population that does not exceed the Citywide average under General Plan Buildout condition VMT per service population. The Screening Tool uses the sub-regional San Bernardino Transportation Analysis Model (SBTAM) to measure VMT performance within individual TAZ's within the region. The Project's physical location based on parcel number is selected in the Screening Tool to determine the TAZ in which the Project will reside. The Project's TAZs VMT per service population was compared to Citywide average buildout VMT per service population. The parcel containing the proposed Project was selected and the Screening Tool was run for origin-destination (OD) VMT per service population. The Project is not located within a low VMT generating zone (See Attachment A).

**Low VMT Area screening criteria is not met.**

### **STEP 3: PROJECT TYPE SCREENING**

The City Guidelines identify that local serving retail less than 50,000 square feet or other local serving essential services (e.g., day care centers, public schools, medical/dental office buildings, etc.) are presumed to have a less than significant impact absent substantial evidence to the contrary. The Project, as intended, does not contain any local serving uses.

Additionally, the City Guidelines state that small projects generating net new trips fewer than 110 daily vehicle trips may be presumed to have a less than significant impact, subject to discretionary approval by the City.

### **EXISTING TRAFFIC**

The Project site is currently occupied and operating as a grain processing company and corn storage and distribution facility within warehousing space totaling 41,780 square feet. In an effort to understand the existing traffic associated with the current use, traffic counts were collected at the driveways on Tuesday, March 1, 2022 through Thursday, March 3, 2022. Table 1 summarizes the trip generation by day and the average existing trip generation based on the count data



collected over two days. As shown in Table 1, the existing site currently generates an average of 316 vehicle trips per day.

**TABLE 1: EXISTING TRIP GENERATION SUMMARY**

Land Use	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	
Average Existing Trip Generation							
Passenger Cars:	11	7	18	0	1	1	209
2-axle Trucks:	2	2	4	0	0	0	17
3-axle Trucks:	0	0	0	0	0	0	6
4+-axle Trucks:	3	4	8	1	0	1	84
Total Truck Trips:	6	6	12	1	0	1	107
<b>Total Trips<sup>1</sup></b>	<b>17</b>	<b>13</b>	<b>30</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>316</b>

<sup>1</sup> Total Trips = Passenger Cars + Truck Trips.

**PROPOSED PROJECT**

It is our understanding that the Project consists of a single 270,377 square foot warehouse building. In order to develop the traffic characteristics of the proposed Project, trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11<sup>th</sup> Edition, 2021) was used for the proposed uses. Table 3 summarizes the trip generation rates. For purposes of this assessment, the following land uses and vehicle mixes have been utilized:

- ITE land use code 150 (Warehousing) has been used to derive site specific trip generation estimates for up to 243,303 square feet (90% of the total square footage). A warehouse is primarily devoted to the storage of materials but may also include office and maintenance areas. The vehicle mix has been obtained from the ITE's Trip Generation Manual. The truck percentages were further broken down by axle type per the following SCAQMD recommended truck mix: 2-Axle = 16.7%; 3-Axle = 20.7%; 4+-Axle = 62.6%.
- ITE land use code 157 (High-Cube Cold Storage Warehouse) has been used to derive site specific trip generation estimates for up to 27,034 square feet (10% of the total square footage). High-cube cold storage warehouses include warehouses characterized by the storage and/or consolidation of manufactured goods (and to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. High-cube cold storage warehouses are facilities typified by temperature-controlled environments for frozen food or other perishable products. The High-Cube Cold Storage Warehouse vehicle mix has been obtained from the ITE's Trip Generation Manual. The truck percentages were further broken down by axle type per the following SCAQMD recommended truck mix: 2-Axle = 34.7%; 3-Axle = 11.0%; 4+-Axle = 54.3%.

**TABLE 3: TRIP GENERATION RATES**

Land Use	Units <sup>2</sup>	ITE LU Code	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
<b>Actual Vehicle Trip Generation Rates</b>									
Warehousing <sup>1,3</sup>	TSF	150	0.131	0.039	0.170	0.050	0.130	0.180	1.710
Passenger Cars			0.120	0.030	0.150	0.034	0.116	0.150	1.110
2-Axle Trucks			0.002	0.001	0.003	0.003	0.002	0.005	0.100
3-Axle Trucks			0.002	0.002	0.004	0.003	0.003	0.006	0.124
4+-Axle Trucks			0.007	0.006	0.013	0.010	0.009	0.019	0.376
High-Cube Cold Storage Warehouse <sup>1,3</sup>	TSF	157	0.085	0.025	0.110	0.034	0.086	0.120	2.120
Passenger Cars			0.076	0.004	0.080	0.019	0.071	0.090	1.370
2-Axle Trucks			0.003	0.007	0.010	0.005	0.005	0.010	0.260
3-Axle Trucks			0.001	0.002	0.003	0.002	0.001	0.003	0.083
4+-Axle Trucks			0.005	0.011	0.016	0.008	0.008	0.016	0.407

<sup>1</sup> Trip Generation & Vehicle Mix Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Eleventh Edition (2021).

<sup>2</sup> TSF = thousand square feet

<sup>3</sup> Truck Mix: South Coast Air Quality Management District's (SCAQMD) recommended truck mix, by axle type.  
Normalized % - Without Cold Storage: 16.7% 2-Axle trucks, 20.7% 3-Axle trucks, 62.6% 4-Axle trucks.  
Normalized % - With Cold Storage: 34.7% 2-Axle trucks, 11.0% 3-Axle trucks, 54.3% 4-Axle trucks.

The trip generation summary illustrating daily trip generation estimates for the proposed Project are summarized on Table 4. The proposed Project is anticipated to generate 476 daily vehicle trips.

**TABLE 4: PROJECT TRIP GENERATION SUMMARY**

Land Use	Quantity Units <sup>1</sup>	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	
<b>Actual Vehicles:</b>								
Warehousing	243.339 TSF							
Passenger Cars:		29	7	36	8	28	36	270
2-axle Trucks:		0	0	0	1	0	1	24
3-axle Trucks:		0	1	1	1	1	2	30
4+-axle Trucks:		2	1	3	2	2	4	92
Total Truck Trips (Actual Vehicles):		2	2	4	4	3	7	146
Warehousing Trips (Actual Vehicles) <sup>2</sup>		31	9	40	12	31	43	416
High-Cube Cold Storage	27.038 TSF							
Passenger Cars:		2	0	2	1	2	3	38
2-axle Trucks:		0	0	0	0	0	0	8
3-axle Trucks:		0	0	0	0	0	0	2
4+-axle Trucks:		0	0	0	0	0	0	12
Total Truck Trips (Actual Vehicles):		0	0	0	0	0	0	22
Cold Storage Trips (Actual Vehicles) <sup>2</sup>		2	0	2	1	2	3	60
Passenger Cars		31	7	38	9	30	39	308
Trucks		2	2	4	4	3	7	168
<b>Total Project Trips (Actual Vehicles)<sup>2</sup></b>		<b>33</b>	<b>9</b>	<b>42</b>	<b>13</b>	<b>33</b>	<b>46</b>	<b>476</b>

<sup>1</sup> TSF = thousand square feet

<sup>2</sup> Total Trips = Passenger Cars + Truck Trips.

**TRIP GENERATION COMPARISON**

Table 5 shows the trip generation comparison between the existing use and proposed Project and identifies the resulting net new trips. As shown, the Project is anticipated to generate 160 net new average daily trips.

**TABLE 5: TRIP GENERATION COMPARISON**

Land Use	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	
Actual Vehicles:							
Existing Use							
Passenger Cars:	11	7	18	0	1	1	209
Trucks:	6	6	12	1	0	1	107
<b>Existing Trips (Actual Vehicles)<sup>2</sup></b>	<b>17</b>	<b>13</b>	<b>30</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>316</b>
Proposed Project							
Passenger Cars:	31	7	38	9	30	39	308
Trucks:	2	2	4	4	3	7	168
<b>Total Project Trips (Actual Vehicles)<sup>2</sup></b>	<b>33</b>	<b>9</b>	<b>42</b>	<b>13</b>	<b>33</b>	<b>46</b>	<b>476</b>
Passenger Cars:	20	0	20	9	29	38	99
Trucks:	-4	-4	-8	3	3	6	61
<b>Net New Project Trips (Actual Vehicles)<sup>2</sup></b>	<b>16</b>	<b>-4</b>	<b>12</b>	<b>12</b>	<b>32</b>	<b>44</b>	<b>160</b>

<sup>1</sup> TSF = thousand square feet

<sup>2</sup> Total Trips = Passenger Cars + Truck Trips.

The Project is anticipated to generate 160 net new daily vehicle trips. Therefore, the Project generates daily vehicle trips exceeding the 110 daily vehicle trip threshold.

**Project Type screening criteria is not met.**

As the Project was not found to meet any of the aforementioned VMT screening criteria, a project level VMT analysis is prepared to assess the Project’s potential impact to VMT.

**VMT ANALYSIS**

**VMT MODELING**

The City Guidelines identify the San Bernardino Transportation Analysis Model (**SBTAM**) as the appropriate tool for conducting VMT analysis for land use projects in the City of Ontario, as it considers interaction between different land uses based on socio-economic data, such as population, households, and employment. Consistent with The City of Ontario Plan (TOP) The City has recently adopted an updated version of SBTAM also referred to as The Ontario Plan (**TOP**) model. This model contains updated roadway network and socio-economic data within the city

and includes a base year of 2019 and a General Plan Buildout of 2050. Outside of the City of Ontario, the model assumes datasets consistent with the 2016 Southern California Association of Governments (SCAG) Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS). Urban Crossroads has obtained the newly adopted TOP model from the City of Ontario.

### **VMT METRIC AND SIGNIFICANCE THRESHOLD**

City Guidelines identify the efficiency based metric VMT per service population (i.e., population and employees) as the measure of potential impact within the City of Ontario. VMT per service population is an efficiency metric that allows a project's VMT to be compared to the remainder of the City. Projects found to increase the average VMT per service population within the City may be deemed to have a significant impact. More specifically, City Guidelines identify the following impact threshold for project level VMT analyses:

- A significant impact would occur if the project VMT per Service Population exceeds the Citywide average for Service Population under General Plan Buildout Conditions.

The City of Ontario's average VMT per service population under General Plan Buildout Conditions was calculated using the TOP 2050 model. Table 6 identifies a summary for the City of Ontario's Citywide average VMT per service population.

**TABLE 6: CITYWIDE VMT PER SERVICE POPULATION**

Ontario	Buildout
Service Population	706,494
VMT	19,508,184
VMT per Service Population	27.61

As shown in Table 6, the City of Ontario's VMT per service population for General Plan Buildout (2050) conditions has been calculated as **27.61 VMT per service population**.

### **PROJECT LAND USE CONVERSION**

In order to evaluate Project VMT, standard land use information must first be converted into a SBTAM compatible dataset. The SBTAM model utilizes socio-economic data (SED) (e.g., population, households, employment, etc.) instead of land use information for the purposes of vehicle trip estimation. Project land use information such as building square footage must first be converted to SED for input into SBTAM. Adjustments in SED have been made to the appropriate TAZ 53699101 within the SBTAM model to reflect the Project's proposed land uses (i.e., warehouse). Table 7 summarizes the employment estimates for the Project. It should be noted that the employment estimates are consistent with the employment density factors identified in the Southern California Association of Governments (SCAG) Employment Density Study (October 2001) (3).

**TABLE 7: EMPLOYMENT ESTIMATES**

Land Use	Quantity (SF)	Employment Density Factor <sup>3</sup>	Estimated Employees
Warehouse	270,337	1 employee per 1,195 SF	226

**PROJECT TOTAL VMT CALCULATION**

Consistent with City Guidelines and standard VMT calculation methods, total VMT is calculated from SBTAM’s OD trip matrices and then divided by a project’s service population to derive the VMT efficiency metric VMT per service population.

Table 8 presents project-generated total VMT calculated as the total of passenger car, light-duty, medium-duty, and heavy-duty truck trips. Total trips by vehicle type are then multiplied by the average trip length for each vehicle type. The average trip length for heavy, medium, and light duty trucks used for this analysis was obtained from the South Coast Air Quality Management District (SCAQMD) documents for the implementation of the Facility-Based Mobile Source Measures (FBMSMs) adopted in the 2016 Air Quality Management Plan (AQMP). SCAQMD’s “Preliminary Warehouse Emission Calculations” cites 39.9-mile trip length for heavy-duty trucks and 14.2-mile trip length for medium and light duty trucks based on SCAG 2016 Regional Transportation Plan (RTP).

**TABLE 8: TOTAL VMT**

	Base Year (2019)	Buildout Year (2050)	Baseline (2022)
Automobile VMT	4,337	3,939	4,299
Truck VMT	3,278	4,085	3,357
Total VMT	7,616	8,025	7,655

Table 9 presents the calculation of VMT per service population, which is simply the product of total VMT for the Project divided by the Project’s service population or in this case the number of Project employees.

**TABLE 9: PROJECT VMT PER SERVICE POPULATION**

	Base Year (2019)	Buildout Year (2050)	Baseline (2022)
Service Population <sup>4</sup>	226	226	226
VMT	7,616	8,025	7,655
VMT per service population	33.67	35.47	33.84

Table 10 identifies the comparison between Project’s baseline and cumulative VMT per service population to the City’s impact threshold. The City of Ontario has identified a VMT per service population significance threshold of 27.61, which is the City of Ontario’s General Plan Buildout with the TOP model. As shown below, the Project would exceed the City’s VMT per service

<sup>3</sup> SCAG Employment Density Study; Table II-B

<sup>4</sup> Since the Project does not have a residential component, the service population consists entirely of employment.

population impact threshold for both the baseline conditions by 22.56%-28.47%, respectively. The Project VMT impact is therefore considered potentially significant.

**TABLE 10: PROJECT COMPARISON TO CITY OF ONTARIO VMT THRESHOLD**

	Baseline	Buildout Year
Impact Threshold	27.61	27.61
Project	33.84	35.47
Percent Change	+22.56%	+28.47%
Potentially Significant?	Yes	Yes

### **PROJECT'S CUMULATIVE EFFECT ON VMT**

The City Guidelines, consistent with the Technical Advisory, states that cumulative impacts on VMT "... metrics such as VMT per capita or VMT per employee, i.e., metrics framed in terms of efficiency (as recommended below for use on residential and office projects), cannot be summed because they employ a denominator. A project that falls below an efficiency-based threshold that is aligned with long-term goals and relevant plans has no cumulative impact distinct from the project impact. Accordingly, a finding of a less-than-significant project impact would imply a less than significant cumulative impact, and vice versa. This is similar to the analysis typically conducted for greenhouse gas emissions, air quality impacts, and impact that utilize plan compliance as a threshold of significance."<sup>5</sup> As the Project is consistent with the RTP/SCS and is found to have a potentially significant impact at the project level. The Project is also considered to have a potentially significant cumulative impact as well.

### **VMT REDUCTION STRATEGIES**

Transportation Demand Management (TDM) strategies in the form of commute trip reduction program measures have been reviewed for the purpose of reducing Project related VMT impacts (i.e., commute trips) determined to be potentially significant. The level of effectiveness of each trip reduction measure has been determined based on the Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity (CAPCOA, 2021) (**2021 Handbook**). As the future building tenants are not known for the Project, the effectiveness of each commute trip reduction measures may be limited. In addition to specific tenancy considerations, locational context is also a major factor relevant to the potential application and effectiveness of TDM measures. The three locational contexts identified by the 2021 Handbook are suburban, urban, and rural.<sup>6</sup> The locational context of the Project is characteristically suburban.

Under the most favorable circumstances and ideal conditions a project can realize a maximum reduction of 45% in commute VMT through implementation of the trip reduction program measures listed below.<sup>7</sup> However, ideal conditions are rarely realized as variables such as a

<sup>5</sup> OPR's Technical Advisory; Page 6

<sup>6</sup> 2021 Handbook; Page 43

<sup>7</sup> 2021 Handbook; Page 61

projects locational context limitation (i.e., non-urban areas). Additionally, to achieve ideal conditions a project must achieve one hundred percent employee participation and maximum employee eligibility, which are not generally expected. The proposed Project would require a minimum reduction of 25.58% to achieve a less than significant impact. The 2021 Handbook lists the following trip reduction measures. These measures can be implemented individually or grouped together to create either a voluntary or mandatory commute trip reduction (CTR) program.

- T-7 – Implement Commute Trip Reduction Marketing
- T-8 – Provide Ridesharing Program
- T-10 – Provide End-of-Trip Facilities

Other regional transportation measures that may reduce VMT include but are not limited to improving/increasing access to transit, increasing access to common goods and service, or orientating land uses towards alternative transportation. These regional transportation measures may be infeasible at the project level but will generally be implemented as the surrounding communities develop. There is no means, however, to quantify any VMT reductions that could result from implementation. Additionally, the effectiveness of the CTR program measures listed above have potential to reduce the Project VMT are dependent on as yet unknown building tenant(s); and as noted above, VMT reductions from various CTR measures cannot be guaranteed.

## **CONCLUSION**

Based on the results of this analysis the following findings are made:

- The Project's was evaluated against screening criteria as outlined in the City Guidelines. The Project was not found to meet any available screening criteria, and a model based VMT analysis was performed.
- The Project's VMT analysis found the Project to exceed the City's VMT per employee threshold by 22.56% in baseline conditions and 28.47% in buildout conditions. The Project is determined to have a potentially significant transportation impact.
- Since the future tenants are unknown at this time, implementation of the feasible TDM measures discussed above cannot be guaranteed to reduce the Project generated VMT per employee; the Project's VMT impact is considered significant and unavoidable.

If you have any questions, please contact me directly at [aso@urbanxroads.com](mailto:aso@urbanxroads.com).

Respectfully submitted,

URBAN CROSSROADS, INC.

A handwritten signature in black ink, appearing to read 'Alexander So', with a long horizontal flourish extending to the right.

Alexander So  
Senior Associate



## REFERENCES

1. **Office of Planning and Research.** *Technical Advisory on Evaluating Transportation Impacts in CEQA.* State of California : s.n., December 2018.
2. **City of Ontario.** *SB 743 VMT Thresholds.* City of Ontario : s.n., June 2020.
3. **Southern California Association of Governments.** *Employment Density Study.* October 2001.

**ATTACHMENT A**  
**SBCTA SCREENING TOOL**

**SBCTA VMT Screening Tool** Powered by Fehr & Peers User's Guide

E Airport Dr, Ontario, CA, 91761. X

Show search results for E Airport Dr, ...

**Complete #1 - 4, Then Click 'Run'**

VMT. Please consult with the jurisdiction to verify which metric to use for your analysis.\*

OD VMT Per Service Population

#3. Select the Baseline Year. The years available for analysis are from 2016 to 2040.\*

2022

#4. Select the Threshold (% reduction from baseline year). Note each jurisdiction may have adopted a different metric by which they measure VMT. Please consult with the jurisdiction to verify which metric to use for your analysis.\*

Below County Baseline (-15%)

Help Run

**Map Layers**

- Project Area VMT
- Screening Results
- Low VMT Generating TAZs
- Parcels
- Jurisdiction Boundaries
- TAZ
- Transit Priority Area

**Project Area VMT (2 of 2)**

Assessor Parcel Number (APN)	023805220
Traffic Analysis Zone (TAZ)	53699101
TAZ VMT	107.7
Jurisdiction VMT	33.3
% Difference	223.39%
VMT Metric	OD VMT Per Service Population
Threshold	28.3
Zoom to	...

County of Riverside, San Bernardino County, Bu

**DATE:** January 3, 2023  
**TO:** Jaime Maciel-Carrera, City of Ontario  
**FROM:** Charlene So, Urban Crossroads  
**JOB NO:** 14539-03 TG Memo

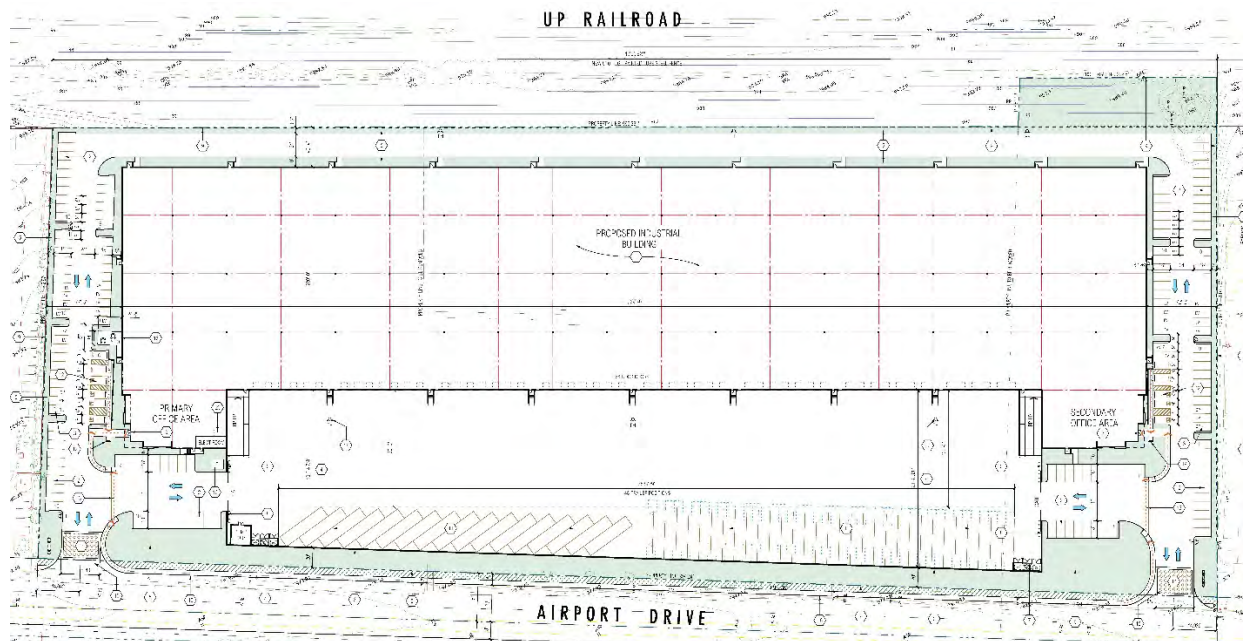


## IE DISTRIBUTION CENTER #14 TRIP GENERATION ASSESSMENT

Urban Crossroads, Inc. is pleased to submit the following responses to the Trip Generation Assessment for the proposed IE Distribution Center #14 development (**Project**), which is located at 5355 E. Airport Drive in the City of Ontario. This letter describes the proposed Project trip generation and determines whether any traffic operations analysis is required based on the County's [Transportation Impact Study Guidelines](#) (July 9, 2019, referred to as **City Guidelines**) as the City does not have their own level of service (LOS) guidelines.

## PROPOSED PROJECT

It is our understanding that the Project consists of a single 270,377 square foot warehouse building. The proposed Project has been evaluated assuming a mix of warehousing (243,303 square feet or 90% of the total square footage) and high-cube cold storage use (27,034 square feet or 10% of the total square footage). The Project site is currently occupied and operating as a grain processing company and corn storage and distribution facility within warehousing space totaling 41,780 square feet. There are two driveways on Airport Drive. A preliminary site plan for the proposed Project is shown in Exhibit 1.

**EXHIBIT 1: PRELIMINARY SITE PLAN****TRIP GENERATION****EXISTING TRAFFIC**

The Project site is currently occupied and operating as a grain processing company and corn storage and distribution facility within warehousing space totaling 41,780 square feet. In an effort to understand the existing traffic associated with the current use, traffic counts were collected at the driveways on Tuesday, March 1, 2022 through Thursday, March 3, 2022. Attachment A includes the driveway count data. Table 1 summarizes the trip generation by day and the average existing trip generation based on the count data collected over two days. The existing site currently generates an average of 316 two-way trips per day, with 30 trips during the AM peak hour and 2 trips during the PM peak hour (in actual vehicles).

**TABLE 1: EXISTING TRIP GENERATION SUMMARY**

Land Use	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	
Average Existing Trip Generation							
Passenger Cars:	11	7	18	0	1	1	209
2-axle Trucks:	2	2	4	0	0	0	17
3-axle Trucks:	0	0	0	0	0	0	6
4+-axle Trucks:	3	4	8	1	0	1	84
Total Truck Trips:	6	6	12	1	0	1	107
<b>Total Trips<sup>1</sup></b>	<b>17</b>	<b>13</b>	<b>30</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>316</b>

<sup>1</sup> Total Trips = Passenger Cars + Truck Trips.

## **PROPOSED PROJECT**

It is our understanding that the Project consists of a single 270,377 square foot warehouse building. In order to develop the traffic characteristics of the proposed Project, trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11<sup>th</sup> Edition, 2021) was used for the proposed uses. Table 2 summarizes the trip generation rates. For purposes of this assessment, the following land uses and vehicle mixes have been utilized:

- ITE land use code 150 (Warehousing) has been used to derive site specific trip generation estimates for up to 243,303 square feet (90% of the total square footage). A warehouse is primarily devoted to the storage of materials but may also include office and maintenance areas. The vehicle mix has been obtained from the ITE's Trip Generation Manual. The truck percentages were further broken down by axle type per the following SCAQMD recommended truck mix: 2-Axle = 16.7%; 3-Axle = 20.7%; 4+-Axle = 62.6%.
- ITE land use code 157 (High-Cube Cold Storage Warehouse) has been used to derive site specific trip generation estimates for up to 27,034 square feet (10% of the total square footage). High-cube cold storage warehouses include warehouses characterized by the storage and/or consolidation of manufactured goods (and to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. High-cube cold storage warehouses are facilities typified by temperature-controlled environments for frozen food or other perishable products. The High-Cube Cold Storage Warehouse vehicle mix has been obtained from the ITE's Trip Generation Manual. The truck percentages were further broken down by axle type per the following SCAQMD recommended truck mix: 2-Axle = 34.7%; 3-Axle = 11.0%; 4+-Axle = 54.3%.

**TABLE 2: TRIP GENERATION RATES**

Land Use	Units <sup>2</sup>	ITE LU Code	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
<b>Actual Vehicle Trip Generation Rates</b>									
Warehousing <sup>1,3</sup>	TSF	150	0.131	0.039	0.170	0.050	0.130	0.180	1.710
Passenger Cars			0.120	0.030	0.150	0.034	0.116	0.150	1.110
2-Axle Trucks			0.002	0.001	0.003	0.003	0.002	0.005	0.100
3-Axle Trucks			0.002	0.002	0.004	0.003	0.003	0.006	0.124
4+-Axle Trucks			0.007	0.006	0.013	0.010	0.009	0.019	0.376
High-Cube Cold Storage Warehouse <sup>1,3</sup>	TSF	157	0.085	0.025	0.110	0.034	0.086	0.120	2.120
Passenger Cars			0.076	0.004	0.080	0.019	0.071	0.090	1.370
2-Axle Trucks			0.003	0.007	0.010	0.005	0.005	0.010	0.260
3-Axle Trucks			0.001	0.002	0.003	0.002	0.001	0.003	0.083
4+-Axle Trucks			0.005	0.011	0.016	0.008	0.008	0.016	0.407

<sup>1</sup> Trip Generation & Vehicle Mix Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Eleventh Edition (2021).

<sup>2</sup> TSF = thousand square feet

<sup>3</sup> Truck Mix: South Coast Air Quality Management District's (SCAQMD) recommended truck mix, by axle type.

Normalized % - Without Cold Storage: 16.7% 2-Axle trucks, 20.7% 3-Axle trucks, 62.6% 4-Axle trucks.

Normalized % - With Cold Storage: 34.7% 2-Axle trucks, 11.0% 3-Axle trucks, 54.3% 4-Axle trucks.

Passenger car equivalent (PCE) factors were applied to the trip generation rates for heavy trucks (large 2-axles, 3-axles, 4+-axles). PCEs allow the typical "real-world" mix of vehicle types to be represented as a single, standardized unit, such as the passenger car, to be used for the purposes of capacity and level of service analyses. The PCE factors are consistent with the recommended PCE factors in the County's Guidelines (City's Guidelines do not specify the factors).

The trip generation summary illustrating daily and peak hour trip generation estimates for the proposed Project are summarized on Table 3 for actual vehicles and on Table 4 for PCE. Any intersection operations analysis for a project would need to utilize the PCE trip generation consistent with the City's Guidelines. The proposed Project is anticipated to generate 476 vehicle trip-ends per day with 42 AM peak hour trips and 46 PM peak hour trips (actual vehicles). In comparison the Project is anticipated to generate 732 PCE vehicle trip-ends per day with 49 PCE AM peak hour trips and 57 PCE PM peak hour trips.

**TABLE 3: PROJECT TRIP GENERATION SUMMARY (ACTUAL VEHICLES)**

Land Use	Quantity Units <sup>1</sup>	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	
<b>Actual Vehicles:</b>								
Warehousing	243.339 TSF							
Passenger Cars:		29	7	36	8	28	36	270
2-axle Trucks:		0	0	0	1	0	1	24
3-axle Trucks:		0	1	1	1	1	2	30
4+-axle Trucks:		2	1	3	2	2	4	92
Total Truck Trips (Actual Vehicles):		2	2	4	4	3	7	146
Warehousing Trips (Actual Vehicles) <sup>2</sup>		31	9	40	12	31	43	416
High-Cube Cold Storage	27.038 TSF							
Passenger Cars:		2	0	2	1	2	3	38
2-axle Trucks:		0	0	0	0	0	0	8
3-axle Trucks:		0	0	0	0	0	0	2
4+-axle Trucks:		0	0	0	0	0	0	12
Total Truck Trips (Actual Vehicles):		0	0	0	0	0	0	22
Cold Storage Trips (Actual Vehicles) <sup>2</sup>		2	0	2	1	2	3	60
Passenger Cars		31	7	38	9	30	39	308
Trucks		2	2	4	4	3	7	168
<b>Total Project Trips (Actual Vehicles)<sup>2</sup></b>		<b>33</b>	<b>9</b>	<b>42</b>	<b>13</b>	<b>33</b>	<b>46</b>	<b>476</b>

<sup>1</sup> TSF = thousand square feet

<sup>2</sup> Total Trips = Passenger Cars + Truck Trips.



**TABLE 4: PROJECT TRIP GENERATION SUMMARY (PCE)**

Land Use	Quantity Units <sup>1</sup>	AM Peak Hour			PM Peak Hour			Daily
		In	Out	Total	In	Out	Total	
Passenger Car Equivalent (PCE):								
Warehousing	243.339 TSF							
Passenger Cars:		29	7	36	8	28	36	270
2-axle Trucks (PCE = 1.5):		0	0	0	2	0	2	36
3-axle Trucks (PCE = 2.0):		0	2	2	2	2	4	60
4+-axle Trucks (PCE = 3.0):		6	3	9	6	6	12	276
Total Truck Trips (PCE):		6	5	11	10	8	18	372
Warehousing Trips (PCE) <sup>2</sup>		35	12	47	18	36	54	642
High-Cube Cold Storage								
Passenger Cars:	27.038 TSF	2	0	2	1	2	3	38
2-axle Trucks (PCE = 1.5):		0	0	0	0	0	0	12
3-axle Trucks (PCE = 2.0):		0	0	0	0	0	0	4
4+-axle Trucks (PCE = 3.0):		0	0	0	0	0	0	36
Total Truck Trips (PCE):		0	0	0	0	0	0	52
Cold Storage Trips (PCE) <sup>2</sup>		2	0	2	1	2	3	90
Passenger Cars		31	7	38	9	30	39	308
Trucks		6	5	11	10	8	18	424
<b>Total Project Trips (PCE)<sup>2</sup></b>		<b>37</b>	<b>12</b>	<b>49</b>	<b>19</b>	<b>38</b>	<b>57</b>	<b>732</b>

<sup>1</sup> TSF = thousand square feet

<sup>2</sup> Total Trips = Passenger Cars + Truck Trips.

### **TRIP GENERATION COMPARISON**

Table 5 shows the trip generation comparison between the existing use and proposed Project and identifies the resulting net new trips. As shown, the Project is anticipated to generate 234 additional two-way trips per day with 1 net new AM peak hour trip and 53 net new PM peak hour trips as compared to the existing use.

**TABLE 5: TRIP GENERATION COMPARISON**

Land Use	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	
Actual Vehicles:							
Existing Use							
Passenger Cars:	11	7	18	0	1	1	209
Trucks:	14	16	30	3	0	3	289
<b>Existing Trips (PCE)<sup>2</sup></b>	<b>25</b>	<b>23</b>	<b>48</b>	<b>3</b>	<b>1</b>	<b>4</b>	<b>498</b>
Proposed Project							
Passenger Cars:	31	7	38	9	30	39	308
Trucks:	6	5	11	10	8	18	424
<b>Total Project Trips (PCE)<sup>2</sup></b>	<b>37</b>	<b>12</b>	<b>49</b>	<b>19</b>	<b>38</b>	<b>57</b>	<b>732</b>
Passenger Cars:	20	0	20	9	29	38	99
Trucks:	-8	-11	-19	7	8	15	135
<b>Net New Project Trips (PCE)<sup>2</sup></b>	<b>12</b>	<b>-11</b>	<b>1</b>	<b>16</b>	<b>37</b>	<b>53</b>	<b>234</b>

<sup>1</sup> TSF = thousand square feet

<sup>2</sup> Total Trips = Passenger Cars + Truck Trips.

## FINDINGS

The City's Guidelines identify a project could potentially require further analysis if it meets the following criteria:

- If a project generates more than 100 peak hour trips in either peak hour. This presumption is based on the assumption that projects that generate less than 100 peak hour trips typically do not affect LOS significantly once distributed to the local roadway network.
- The minimum area to be studied should include any intersection at which the proposed project would add 50 or more peak hour trips.

Even without taking any credit for the existing use (which currently generates nominal traffic), the proposed Project is anticipated to generate fewer than 100 peak hour trips. Furthermore, taking into consideration the distribution of traffic to the west and east on E. Airport Drive, the Project is anticipated to contribute fewer than 50 peak hour trips to any off-site intersection. As such, no traffic operations analysis has been recommended based on the findings of this trip generation assessment.

If you have any questions or comments, I can be reached at [cs@urbanxroads.com](mailto:cs@urbanxroads.com).

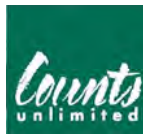
## ATTACHMENT A: DRIVEWAY COUNTS

**Table A-1**

**Summary of Weekday Peak Hour Driveway Counts**

Land Use	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	
<b>Day 1: Tuesday, March 1, 2022</b>	<b>7-8 AM; 4-5 PM</b>						
Passenger Cars:	10	6	16	0	3	3	260
2-axle Trucks:	4	2	6	0	0	0	28
3-axle Trucks:	0	0	0	0	0	0	6
4+-axle Trucks:	3	5	8	1	0	1	79
Total Truck Trips:	7	7	14	1	0	1	113
<b>Total Trips<sup>1</sup></b>	<b>17</b>	<b>13</b>	<b>30</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>373</b>
<b>Day 2: Wednesday, March 2, 2022</b>	<b>7:30-8:30 AM; 5-6 PM</b>						
Passenger Cars:	9	6	15	0	0	0	154
2-axle Trucks:	2	1	3	0	0	0	7
3-axle Trucks:	0	0	0	0	0	0	7
4+-axle Trucks:	5	3	8	1	0	1	91
Total Truck Trips:	7	4	11	1	0	1	105
<b>Total Trips<sup>1</sup></b>	<b>16</b>	<b>10</b>	<b>26</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>259</b>
<b>Day 3: Thursday, March 3, 2022</b>	<b>8-9 AM; 5-6 PM</b>						
Passenger Cars:	15	8	23	0	0	0	214
2-axle Trucks:	1	2	3	0	0	0	16
3-axle Trucks:	1	0	1	0	0	0	5
4+-axle Trucks:	2	5	7	1	0	1	81
Total Truck Trips:	4	7	11	1	0	1	102
<b>Total Trips<sup>1</sup></b>	<b>19</b>	<b>15</b>	<b>34</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>316</b>

<sup>1</sup> Total Trips = Passenger Cars + Truck Trips.



City: Ontario  
 Location: 5255 E Airport - TOTAL  
 Date: 3/1/2022  
 Count Type: Classified Driveway Counts

	Entering				
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	Total
0:00	0	0	0	0	0
0:15	0	0	0	0	0
0:30	0	0	0	0	0
0:45	0	0	0	0	0
1:00	0	0	0	0	0
1:15	0	0	0	0	0
1:30	2	0	0	0	2
1:45	0	0	0	0	0
2:00	1	0	0	0	1
2:15	0	0	0	0	0
2:30	0	0	0	0	0
2:45	2	0	0	0	2
3:00	0	0	0	0	0
3:15	0	0	0	0	0
3:30	1	0	0	1	2
3:45	1	0	0	1	2
4:00	0	0	0	0	0
4:15	0	0	0	1	1
4:30	0	0	0	0	0
4:45	1	0	0	2	3
5:00	0	0	0	0	0
5:15	0	0	0	1	1
5:30	2	0	0	1	3
5:45	1	0	0	1	2
6:00	0	0	0	1	1
6:15	1	0	0	1	2
6:30	1	0	0	1	2
6:45	1	1	0	1	3
7:00	5	1	0	0	6
7:15	2	0	0	2	4
7:30	1	1	0	0	2
7:45	2	2	0	1	5
8:00	3	0	0	1	4
8:15	1	0	0	1	2
8:30	0	0	0	0	0
8:45	4	1	0	1	6
9:00	3	0	0	0	3
9:15	3	0	0	2	5
9:30	3	0	0	4	7
9:45	2	0	0	0	2
10:00	2	1	0	1	4
10:15	4	1	0	1	6
10:30	7	1	1	1	10
10:45	4	0	0	0	4
11:00	5	0	0	1	6
11:15	3	0	0	0	3
11:30	3	0	0	1	4
11:45	4	0	0	1	5

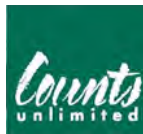
	Exiting				
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	Total
0:00	0	0	0	0	0
0:15	0	0	0	0	0
0:30	0	0	0	0	0
0:45	0	0	0	0	0
1:00	0	0	0	0	0
1:15	0	0	0	0	0
1:30	0	0	0	0	0
1:45	0	0	0	2	2
2:00	0	0	0	0	0
2:15	0	0	0	1	1
2:30	0	0	0	0	0
2:45	0	0	0	1	1
3:00	0	0	0	0	0
3:15	0	0	0	0	0
3:30	0	0	0	0	0
3:45	0	0	0	0	0
4:00	0	0	0	0	0
4:15	0	0	0	0	0
4:30	0	0	0	1	1
4:45	0	0	0	1	1
5:00	0	0	0	2	2
5:15	0	0	0	1	1
5:30	0	0	0	0	0
5:45	0	0	0	1	1
6:00	0	0	0	1	1
6:15	0	0	0	2	2
6:30	1	0	0	1	2
6:45	0	0	0	2	2
7:00	0	0	0	1	1
7:15	2	1	0	1	4
7:30	2	0	0	3	5
7:45	2	1	0	0	3
8:00	0	0	0	1	1
8:15	2	1	0	1	4
8:30	4	1	0	0	5
8:45	1	0	0	0	1
9:00	2	1	0	1	4
9:15	4	0	0	0	4
9:30	4	0	0	1	5
9:45	1	0	0	1	2
10:00	4	1	0	3	8
10:15	3	0	0	1	4
10:30	3	0	0	0	3
10:45	3	1	0	0	4
11:00	7	2	0	1	10
11:15	4	0	0	1	5
11:30	2	0	0	0	2
11:45	5	0	0	1	6



City: Ontario  
 Location: 5255 E Airport - TOTAL  
 Date: 3/1/2022  
 Count Type: Classified Driveway Counts

	Entering				
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	Total
12:00	8	1	0	1	10
12:15	5	0	0	0	5
12:30	4	1	0	0	5
12:45	1	0	0	3	4
13:00	5	1	0	0	6
13:15	3	1	1	0	5
13:30	5	0	0	1	6
13:45	5	0	1	1	7
14:00	3	0	0	0	3
14:15	3	1	0	0	4
14:30	5	0	0	0	5
14:45	3	0	0	0	3
15:00	2	0	0	1	3
15:15	3	0	0	0	3
15:30	0	0	0	0	0
15:45	0	0	0	0	0
16:00	0	0	0	0	0
16:15	0	0	0	0	0
16:30	0	0	0	0	0
16:45	0	0	0	1	1
17:00	0	0	0	0	0
17:15	0	0	0	0	0
17:30	0	0	0	0	0
17:45	0	0	0	0	0
18:00	0	0	0	0	0
18:15	0	0	1	0	1
18:30	0	0	0	0	0
18:45	0	0	0	0	0
19:00	0	0	0	0	0
19:15	0	0	0	0	0
19:30	0	0	0	0	0
19:45	0	0	0	0	0
20:00	0	0	0	0	0
20:15	0	0	0	0	0
20:30	0	0	0	1	1
20:45	0	0	0	0	0
21:00	0	0	0	0	0
21:15	0	0	0	0	0
21:30	0	0	0	0	0
21:45	0	0	0	0	0
22:00	0	0	0	0	0
22:15	0	0	0	0	0
22:30	0	0	0	0	0
22:45	0	0	0	0	0
23:00	0	0	0	0	0
23:15	0	0	0	0	0
23:30	0	0	0	0	0
23:45	0	0	0	0	0
<b>TOTAL</b>	<b>130</b>	<b>14</b>	<b>4</b>	<b>39</b>	<b>187</b>

	Exiting				
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	Total
12:00	3	0	0	1	4
12:15	4	0	0	1	5
12:30	5	0	0	0	5
12:45	3	1	0	1	5
13:00	6	1	0	0	7
13:15	6	1	0	0	7
13:30	8	0	0	1	9
13:45	4	0	0	0	4
14:00	7	1	0	2	10
14:15	1	0	0	0	1
14:30	6	1	1	0	8
14:45	7	0	0	1	8
15:00	1	0	0	0	1
15:15	2	0	0	0	2
15:30	5	0	0	0	5
15:45	2	0	0	0	2
16:00	2	0	0	0	2
16:15	0	0	0	0	0
16:30	1	0	0	0	1
16:45	0	0	0	0	0
17:00	0	0	0	0	0
17:15	0	0	0	0	0
17:30	0	0	0	0	0
17:45	0	0	0	0	0
18:00	0	0	0	0	0
18:15	0	0	1	0	1
18:30	0	0	0	0	0
18:45	0	0	0	0	0
19:00	0	0	0	0	0
19:15	0	0	0	0	0
19:30	0	0	0	0	0
19:45	0	0	0	0	0
20:00	0	0	0	0	0
20:15	0	0	0	0	0
20:30	0	0	0	0	0
20:45	0	0	0	0	0
21:00	0	0	0	0	0
21:15	1	0	0	0	1
21:30	0	0	0	0	0
21:45	0	0	0	0	0
22:00	0	0	0	0	0
22:15	0	0	0	0	0
22:30	0	0	0	0	0
22:45	0	0	0	0	0
23:00	0	0	0	0	0
23:15	0	0	0	0	0
23:30	0	0	0	0	0
23:45	0	0	0	0	0
<b>TOTAL</b>	<b>130</b>	<b>14</b>	<b>2</b>	<b>40</b>	<b>186</b>



City: Ontario  
 Location: 5255 E Airport - TOTAL  
 Date: 3/2/2022  
 Count Type: Classified Driveway Counts

	Entering				
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	Total
0:00	0	0	0	0	0
0:15	0	0	0	0	0
0:30	0	0	0	0	0
0:45	0	0	0	0	0
1:00	0	0	0	0	0
1:15	1	0	0	0	1
1:30	0	0	0	0	0
1:45	0	0	0	0	0
2:00	0	0	0	0	0
2:15	1	0	0	0	1
2:30	1	0	0	0	1
2:45	1	0	0	1	2
3:00	1	0	0	0	1
3:15	0	0	0	0	0
3:30	0	0	0	0	0
3:45	0	0	0	0	0
4:00	0	0	0	0	0
4:15	0	0	0	0	0
4:30	0	0	0	3	3
4:45	0	0	0	2	2
5:00	0	0	0	1	1
5:15	1	0	0	1	2
5:30	0	0	0	0	0
5:45	0	0	0	1	1
6:00	2	0	0	0	2
6:15	1	0	0	0	1
6:30	0	0	0	0	0
6:45	2	0	0	1	3
7:00	5	0	0	1	6
7:15	1	0	0	1	2
7:30	2	1	0	1	4
7:45	3	0	0	1	4
8:00	1	1	0	1	3
8:15	3	0	0	2	5
8:30	1	0	0	1	2
8:45	2	0	0	1	3
9:00	0	0	0	1	1
9:15	2	0	2	3	7
9:30	5	0	0	0	5
9:45	1	0	0	0	1
10:00	2	0	0	1	3
10:15	2	0	0	0	2
10:30	3	0	0	1	4
10:45	2	0	0	0	2
11:00	4	0	0	2	6
11:15	3	1	0	3	7
11:30	3	0	0	1	4
11:45	3	0	0	1	4

	Exiting				
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	Total
0:00	0	0	0	0	0
0:15	0	0	0	0	0
0:30	0	0	0	0	0
0:45	0	0	0	0	0
1:00	0	0	0	0	0
1:15	0	0	0	0	0
1:30	0	0	0	1	1
1:45	0	0	0	0	0
2:00	0	0	0	0	0
2:15	0	0	0	0	0
2:30	0	0	0	0	0
2:45	0	0	0	1	1
3:00	0	0	0	1	1
3:15	0	0	0	0	0
3:30	0	0	0	1	1
3:45	0	0	0	0	0
4:00	0	0	0	1	1
4:15	0	0	0	0	0
4:30	0	0	0	0	0
4:45	0	0	0	1	1
5:00	0	0	0	1	1
5:15	0	0	0	3	3
5:30	0	0	0	1	1
5:45	0	0	0	2	2
6:00	0	0	0	0	0
6:15	0	0	0	0	0
6:30	0	0	0	0	0
6:45	1	0	0	1	2
7:00	0	0	0	0	0
7:15	0	0	0	2	2
7:30	2	0	0	1	3
7:45	1	1	0	1	3
8:00	2	0	0	1	3
8:15	1	0	0	0	1
8:30	2	0	0	1	3
8:45	2	0	0	1	3
9:00	1	1	0	0	2
9:15	1	0	0	2	3
9:30	2	0	0	1	3
9:45	1	0	0	2	3
10:00	4	1	0	2	7
10:15	0	0	0	1	1
10:30	2	0	0	0	2
10:45	3	0	0	1	4
11:00	2	0	0	1	3
11:15	1	0	0	2	3
11:30	8	1	0	1	10
11:45	2	0	0	0	2



City: Ontario  
 Location: 5255 E Airport - TOTAL  
 Date: 3/2/2022  
 Count Type: Classified Driveway Counts

	Entering				
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	Total
12:00	2	0	0	1	3
12:15	2	0	0	1	3
12:30	1	0	0	1	2
12:45	1	0	0	1	2
13:00	2	0	0	1	3
13:15	0	0	0	1	1
13:30	2	0	0	0	2
13:45	2	0	0	1	3
14:00	1	0	0	0	1
14:15	0	0	0	0	0
14:30	1	0	1	1	3
14:45	1	0	0	2	3
15:00	1	0	0	1	2
15:15	0	0	1	0	1
15:30	1	0	0	0	1
15:45	0	0	1	0	1
16:00	0	0	0	0	0
16:15	0	0	0	0	0
16:30	0	0	0	0	0
16:45	0	0	0	0	0
17:00	0	0	0	0	0
17:15	0	0	0	1	1
17:30	0	0	0	0	0
17:45	0	0	0	0	0
18:00	0	0	0	0	0
18:15	0	0	0	0	0
18:30	0	0	0	0	0
18:45	0	0	0	0	0
19:00	0	0	0	0	0
19:15	0	0	0	0	0
19:30	0	0	0	0	0
19:45	0	0	0	0	0
20:00	0	0	0	0	0
20:15	0	0	0	0	0
20:30	0	0	0	0	0
20:45	0	0	0	0	0
21:00	0	0	0	0	0
21:15	0	0	0	0	0
21:30	0	0	0	0	0
21:45	0	0	0	0	0
22:00	0	0	0	1	1
22:15	0	0	0	0	0
22:30	0	0	0	0	0
22:45	0	0	0	0	0
23:00	0	0	0	0	0
23:15	0	0	0	0	0
23:30	0	0	0	0	0
23:45	0	0	0	0	0
<b>TOTAL</b>	<b>76</b>	<b>3</b>	<b>5</b>	<b>45</b>	<b>129</b>

	Exiting				
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	Total
12:00	1	0	0	2	3
12:15	5	0	0	2	7
12:30	0	0	0	2	2
12:45	2	0	0	0	2
13:00	4	0	0	1	5
13:15	2	0	0	0	2
13:30	3	0	0	0	3
13:45	3	0	0	0	3
14:00	1	0	0	0	1
14:15	3	0	0	0	3
14:30	1	0	0	0	1
14:45	0	0	0	0	0
15:00	1	0	0	0	1
15:15	4	0	1	0	5
15:30	4	0	0	1	5
15:45	4	0	0	2	6
16:00	0	0	0	1	1
16:15	0	0	0	0	0
16:30	0	0	0	0	0
16:45	0	0	0	0	0
17:00	0	0	0	0	0
17:15	0	0	0	0	0
17:30	0	0	0	0	0
17:45	0	0	0	0	0
18:00	0	0	0	0	0
18:15	0	0	0	1	1
18:30	0	0	0	0	0
18:45	0	0	0	0	0
19:00	0	0	0	0	0
19:15	2	0	0	0	2
19:30	0	0	0	0	0
19:45	0	0	0	0	0
20:00	0	0	0	0	0
20:15	0	0	0	0	0
20:30	0	0	0	0	0
20:45	0	0	0	0	0
21:00	0	0	0	0	0
21:15	0	0	0	0	0
21:30	0	0	0	0	0
21:45	0	0	0	0	0
22:00	0	0	0	0	0
22:15	0	0	1	0	1
22:30	0	0	0	0	0
22:45	0	0	0	0	0
23:00	0	0	0	0	0
23:15	0	0	0	0	0
23:30	0	0	0	0	0
23:45	0	0	0	0	0
<b>TOTAL</b>	<b>78</b>	<b>4</b>	<b>2</b>	<b>46</b>	<b>130</b>





City: Ontario  
 Location: 5255 E Airport - TOTAL  
 Date: 3/3/2022  
 Count Type: Classified Driveway Counts

	Entering				
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	Total
0:00	0	0	0	0	0
0:15	0	0	0	0	0
0:30	0	0	0	0	0
0:45	0	0	0	0	0
1:00	0	0	0	0	0
1:15	0	0	0	0	0
1:30	0	0	0	0	0
1:45	1	0	0	0	1
2:00	0	0	0	0	0
2:15	1	0	0	0	1
2:30	3	0	0	0	3
2:45	0	0	0	0	0
3:00	0	0	0	0	0
3:15	0	0	0	0	0
3:30	1	0	0	1	2
3:45	2	0	0	0	2
4:00	0	0	0	0	0
4:15	0	0	0	0	0
4:30	1	0	0	3	4
4:45	0	0	0	0	0
5:00	0	0	0	5	5
5:15	0	0	0	1	1
5:30	0	0	0	0	0
5:45	0	0	0	0	0
6:00	2	0	0	1	3
6:15	0	0	0	1	1
6:30	0	0	0	1	1
6:45	2	0	0	0	2
7:00	2	0	0	1	3
7:15	0	1	0	0	1
7:30	3	1	0	1	5
7:45	1	0	0	3	4
8:00	5	0	1	1	7
8:15	1	0	0	1	2
8:30	8	1	0	0	9
8:45	1	0	0	0	1
9:00	8	0	0	1	9
9:15	1	0	1	3	5
9:30	3	0	0	0	3
9:45	4	0	0	0	4
10:00	2	1	0	1	4
10:15	0	0	0	0	0
10:30	4	0	0	1	5
10:45	2	0	0	1	3
11:00	1	1	0	2	4
11:15	3	0	0	0	3
11:30	5	0	0	1	6
11:45	3	0	0	0	3

	Exiting				
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	Total
0:00	0	0	0	0	0
0:15	0	0	0	0	0
0:30	0	0	0	0	0
0:45	0	0	0	0	0
1:00	0	0	0	0	0
1:15	0	0	0	0	0
1:30	0	0	0	0	0
1:45	0	0	0	0	0
2:00	0	0	0	1	1
2:15	0	0	0	0	0
2:30	0	0	0	1	1
2:45	0	0	0	2	2
3:00	0	0	0	0	0
3:15	0	0	0	0	0
3:30	0	0	0	0	0
3:45	0	0	0	1	1
4:00	0	0	0	0	0
4:15	0	0	0	0	0
4:30	0	0	0	0	0
4:45	0	0	0	0	0
5:00	0	0	0	3	3
5:15	0	0	0	2	2
5:30	0	0	0	3	3
5:45	0	0	0	1	1
6:00	0	0	0	0	0
6:15	0	0	0	0	0
6:30	0	0	0	0	0
6:45	0	0	0	1	1
7:00	1	0	0	2	3
7:15	2	0	0	0	2
7:30	0	0	1	1	2
7:45	1	0	0	0	1
8:00	0	0	0	1	1
8:15	1	1	0	3	5
8:30	4	0	0	0	4
8:45	3	1	0	1	5
9:00	5	1	0	1	7
9:15	2	0	0	1	3
9:30	2	1	0	2	5
9:45	1	0	0	2	3
10:00	7	0	0	1	8
10:15	1	0	0	0	1
10:30	6	0	0	0	6
10:45	3	0	0	2	5
11:00	2	0	0	0	2
11:15	3	2	0	0	5
11:30	3	1	0	2	6
11:45	3	0	0	1	4



City: Ontario  
 Location: 5255 E Airport - TOTAL  
 Date: 3/3/2022  
 Count Type: Classified Driveway Counts

	Entering				
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	Total
12:00	4	0	0	1	5
12:15	6	0	0	1	7
12:30	3	0	0	1	4
12:45	4	0	1	0	5
13:00	1	0	0	2	3
13:15	3	1	0	1	5
13:30	5	0	0	0	5
13:45	1	0	0	0	1
14:00	3	0	0	0	3
14:15	1	1	0	1	3
14:30	2	0	0	0	2
14:45	1	0	0	1	2
15:00	1	0	0	0	1
15:15	0	0	0	0	0
15:30	1	0	0	0	1
15:45	0	0	0	0	0
16:00	0	0	0	0	0
16:15	0	0	0	0	0
16:30	0	0	0	0	0
16:45	0	0	0	0	0
17:00	0	0	0	0	0
17:15	0	0	0	0	0
17:30	0	0	0	1	1
17:45	0	0	0	0	0
18:00	0	0	0	0	0
18:15	0	0	0	0	0
18:30	0	0	0	0	0
18:45	0	0	0	0	0
19:00	0	0	0	0	0
19:15	0	0	0	0	0
19:30	0	0	0	0	0
19:45	0	0	0	0	0
20:00	0	0	0	0	0
20:15	0	0	0	0	0
20:30	0	0	0	0	0
20:45	0	0	0	0	0
21:00	0	0	0	0	0
21:15	0	0	0	0	0
21:30	0	0	0	0	0
21:45	0	0	0	0	0
22:00	0	0	0	0	0
22:15	0	0	0	0	0
22:30	0	0	0	0	0
22:45	0	0	0	0	0
23:00	0	0	0	1	1
23:15	0	0	0	0	0
23:30	0	0	0	0	0
23:45	0	0	0	0	0
<b>TOTAL</b>	<b>106</b>	<b>7</b>	<b>3</b>	<b>40</b>	<b>156</b>

	Exiting				
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	Total
12:00	6	0	0	0	6
12:15	5	0	0	1	6
12:30	4	0	0	0	4
12:45	4	0	0	1	5
13:00	3	0	0	1	4
13:15	2	1	0	0	3
13:30	4	0	0	1	5
13:45	3	0	0	1	4
14:00	6	0	0	0	6
14:15	3	0	0	0	3
14:30	5	1	0	0	6
14:45	1	0	0	0	1
15:00	2	0	0	0	2
15:15	0	0	0	1	1
15:30	3	0	0	0	3
15:45	4	0	0	0	4
16:00	0	0	0	0	0
16:15	0	0	0	0	0
16:30	0	0	0	0	0
16:45	0	0	0	0	0
17:00	0	0	0	0	0
17:15	0	0	0	0	0
17:30	0	0	0	0	0
17:45	0	0	0	0	0
18:00	1	0	0	0	1
18:15	0	0	0	0	0
18:30	0	0	0	0	0
18:45	0	0	0	0	0
19:00	0	0	0	0	0
19:15	0	0	0	0	0
19:30	2	0	0	0	2
19:45	0	0	0	0	0
20:00	0	0	0	0	0
20:15	0	0	0	0	0
20:30	0	0	0	0	0
20:45	0	0	0	0	0
21:00	0	0	0	0	0
21:15	0	0	0	0	0
21:30	0	0	0	0	0
21:45	0	0	0	0	0
22:00	0	0	0	0	0
22:15	0	0	0	0	0
22:30	0	0	0	0	0
22:45	0	0	0	0	0
23:00	0	0	0	0	0
23:15	0	0	1	0	1
23:30	0	0	0	0	0
23:45	0	0	0	0	0
<b>TOTAL</b>	<b>108</b>	<b>9</b>	<b>2</b>	<b>41</b>	<b>160</b>

**Final Environmental Impact Report**  
**SCH No. 2022090006**

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**5355 East Airport Drive**  
**Project**  
**City of Ontario, California**

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**Lead Agency**

City of Ontario  
303 East "B" Street  
Ontario, CA 91764

**CEQA Consultant**

T&B Planning, Inc.  
3200 El Camino Real, Suite 100  
Irvine, CA 92602

**Project Applicant**

Prologis, Inc.  
17777 Center Court Drive N, Suite 100  
Cerritos, CA 90703

**Lead Agency Discretionary Permits**

Development Plan PDEV22-017

**February 2024**



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## **SECTION 1.0 INTRODUCTION**

In accordance with Section 15088 of the California Environmental Quality Act (CEQA) Guidelines, the City of Ontario, as the Lead Agency, has evaluated the comments received on the Draft Environmental Impact Report (Draft EIR) for the 5355 East Airport Drive Project (Project) (SCH No. 2022040177) and has prepared written responses to these comments. This Final Environmental Impact Report (Final EIR) has been prepared in accordance with the CEQA Statute and Guidelines and represents the independent judgment of the City of Ontario serving in its capacity as the CEQA Lead Agency.

According to CEQA Guidelines Section 15132, the Final EIR shall consist of:

- (a) *The Draft EIR or a revision of the draft;*
- (b) *Comments and recommendations received on the Draft EIR either verbatim or in summary;*
- (c) *A list of persons, organizations, and public agencies commenting on the Draft EIR;*
- (d) *The responses of the Lead Agency to significant environmental points raised in the review and consultation process; and*
- (e) *Any other information added by the Lead Agency.*

The City's Planning Commission will consider certification of the EIR, adoption of a Mitigation Monitoring and Reporting Program, and Findings of Facts as part of the approval process for the Project.

This Final EIR document is organized as follows:

**Section 1** provides a brief introduction to this Final EIR document, a summary of the Draft EIR public review process, and a list of commenters.

**Section 2** provides responses to the public comments that the City of Ontario received on the Draft EIR during the public review period. Responses are provided in the form of individual responses to each substantive environmental comment made in the comment letters received. Comment letters are presented and are followed by the responses to each substantive comment in each letter.

**Section 3** contains revisions and clarifications to the Draft EIR as a result of the comments received. Changes to the Draft EIR that have been made in the Final EIR are presented as an Errata. This information does not constitute significant new information and recirculation of the EIR for further review pursuant to CEQA Guidelines Section 15088.5 is not required.



## **1.1 PUBLIC REVIEW PROCESS**

In compliance with Section 15201 of the CEQA Guidelines, the City of Ontario (City) has taken steps to provide opportunities for public participation in the environmental review process. A Notice of Preparation (NOP) was distributed on September 1, 2022, to responsible agencies, local government agencies, and interested parties for a 30-day public review period (from September 1, 2022, to September 30, 2022) in order to solicit comments and inform agencies and the public of the Project. The NOP was also distributed to the State of California Office of Planning and Research, State Clearinghouse (SCH) for distribution to State agencies. The NOP was posted on the City's website and at the San Bernardino County Clerk's office on September 1, 2022. The Project was described; potential environmental effects associated with Project implementation were identified; and agencies and the public were invited to review and comment on the NOP. A copy of the NOP and comments received are included in *Appendix A* of the Draft EIR. The City received six comment letters in response to the NOP. Table 1-1 of the Draft EIR provides a brief summary of the NOP comments received that address environmental and related issues.

CEQA requires that a Draft EIR have a review period lasting at least 45 days for projects that have been submitted to the SCH for review (CEQA Guidelines§15105(a)). The Draft EIR was distributed to various public agencies, organizations, and individuals on August 22, 2023, for a 45 day review period, with the local review period and State review period ending on October 5, 2023. The City used several methods to elicit comments on the Draft EIR. A Notice of Availability (NOA) and the Draft EIR was distributed to the SCH for distribution to State agencies and was posted on the City's website. The NOA was also posted at the San Bernardino County Clerk's office on August 22, 2023. Also on August 22, 2023, the NOA was mailed to responsible agencies, local government agencies, and interested parties that received the NOP, to individuals who had previously requested the NOA or EIR, and to individuals who provided NOP comments. Finally, the NOA and Draft EIR were made available for review on the City's website at:

<https://www.ontarioca.gov/Planning/Reports/EnvironmentalImpact>.

The Planning Commission, as the final approval body, is scheduled to hold a public hearing to consider the proposed Project, associated actions, and certification of the Final EIR for the Project. A NOA for the Final EIR and the public hearing notice will be provided to all parties that submitted comments on the Draft EIR.

## **1.2 LIST OF EIR COMMENTERS**

In accordance with Section 15132 of the CEQA Guidelines, following is a list of the parties that submitted comments on the Draft EIR. The City received two comment letters.

Responses to each comment are contained in Section 2.0. The two comment letters are assigned a letter (i.e., A and B) and the comments in each letter are divided into sequential numbered comments (i.e., A-1, A-2, A-3).



**5355 East Airport Drive Project  
Final Environmental Impact Report**

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<b>Commenting Party</b>	<b>Date of Letter</b>
A. Adams Broadwell Joseph & Cardozo on behalf of Californians Allied for a Responsible Economy	October 5, 2023
B. Blum, Collins & Ho LLP on behalf of Golden State Environmental Justice Alliance	October 4, 2023



## SECTION 2.0 RESPONSES TO COMMENTS RECEIVED DURING THE PUBLIC REVIEW PERIOD

The two comment letters received by the City have been included and responded to in this Final Environmental Impact Report (Final EIR). Comments that address environmental concerns are thoroughly addressed. Comments that do not require a response are indicated below and include those that (1) do not address the adequacy or completeness of the Draft EIR (i.e., are outside the scope of CEQA); (2) do not raise environmental issues; (3) do not address the Project; or (4) request the incorporation of additional information not relevant to environmental issues.

CEQA Guidelines Section 15204(a) outlines the parameters for public agencies and interested parties to submit comments and the Lead Agency's responsibility for responding to specific comments. Per CEQA Guidelines Section 15204(a), comments should be related to:

*[T]he sufficiency of the document in identifying and analyzing possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated. Comments are most helpful when they suggest additional specific alternatives or mitigation measures that would provide better ways to avoid or mitigate the significant environmental effects. At the same time, reviewers should be aware that the adequacy of an EIR is determined in terms of what is reasonably feasible... CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or suggested by commenters. When responding to comments, lead agencies need only respond to significant environmental issues and do not need to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the EIR.*

CEQA Guidelines Section 15204(c) further advises that, “[r]eviewers should explain the basis for their comments, and should submit data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts in support of the comments. Pursuant to CEQA Guidelines Section 15064, an effect shall not be considered significant in the absence of substantial evidence.” Additionally, CEQA Guidelines Section 15204(d) notes that, “[e]ach responsible agency and trustee agency shall focus its comments on environmental information germane to that agency’s statutory responsibility;” but, pursuant to CEQA Guidelines Section 15204(e), “[t]his section shall not be used to restrict the ability of reviewers to comment on the general adequacy of a document or of the lead agency to reject comments not focused as recommended by this section [CEQA Guidelines Section 15204].”

CEQA Guidelines Section 15088, Evaluation of and Response to Comments, states:

- a) *The lead agency shall evaluate comments on environmental issues received from persons who reviewed the draft EIR and shall prepare a written response. The lead agency shall respond to comments raising significant environmental issues received during the noticed comment period and any extensions and may respond to late comments.*





- b) *The lead agency shall provide a written proposed response, either in a printed copy or in an electronic format, to a public agency on comments made by that public agency at least 10 days prior to certifying an environmental impact report.*
- c) *The written response shall describe the disposition of significant environmental issues raised (e.g., revisions to the proposed project to mitigate anticipated impacts or objections). In particular, the major environmental issues raised when the Lead Agency's position is at variance with recommendations and objections raised in the comments must be addressed in detail giving reasons why specific comments and suggestions were not accepted. There must be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice. The level of detail contained in the response, however, may correspond to the level of detail provided in the comment (i.e., responses to general comments may be general). A general response may be appropriate when a comment does not contain or specifically refer to readily available information, or does not explain the relevance of evidence submitted with the comment.*
- d) *The response to comments may take the form of a revision to the draft EIR or may be a separate section in the final EIR. Where the response to comments makes important changes in the information contained in the text of the draft EIR, the lead agency should either:*
  - 1. *Revise the text in the body of the EIR; or*
  - 2. *Include marginal notes showing that the information is revised in the response to comments.*

This section includes responses to substantive Draft EIR comments received by the City. With respect to comment letters received, aside from certain courtesy statements, introductions, and closings, individual comments within the body of each letter have been identified and numbered. A copy of each comment letter and the City's responses to each applicable comment are included in this section. Brackets delineating the individual comments and a numeric identifier have been added to the right margin of the letter. Responses to each comment identified are included on the page(s) following each comment letter.

In accordance with Public Resources Code Section 21092.5, written responses to public agency comments shall be provided to the public agency at least 10 days prior to certifying an EIR.

As described in Section 3.0, *Draft EIR Clarifications and Revisions*, of this document, the Draft EIR, revisions and information presented in response to comments received do not result in any of the conditions set forth in Section 15088.5 of the CEQA Guidelines requiring recirculation; therefore, the Draft EIR does not need to be recirculated prior to its certification.



**5355 East Airport Drive Project  
Final Environmental Impact Report**

**COMMENT LETTER A**

**ADAMS BROADWELL JOSEPH & CARDOZO**

A PROFESSIONAL CORPORATION

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*Of Counsel*  
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October 5, 2023

**Via Overnight Mail and Email**

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**Via Email Only**

Rudy Zeledon, Planning Director  
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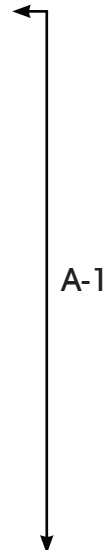
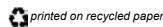
**Re: Comments on the Draft Environmental Impact Report for 5355 East Airport Drive Project (SCH No. 2022090006; File No. PDEV22-017)**

Dear Mr. Grahn and Mr. Zeledon:

We are writing on behalf of Californians Allied for a Responsible Economy (“CARE CA”) to provide comments on the Draft Environmental Impact Report (“DEIR”) prepared by the City of Ontario (“City”) for 5355 East Airport Drive Project (SCH No. 2022090006; File No. PDEV22-017) (“Project”), proposed by Prologis. Inc (“Applicant”).

The Project site is located on 13.08 acres at 5355 East Airport Drive in the City of Ontario, in San Bernardino County, California (Assessor Parcel Numbers: 0238-052-29 and 0238-052-20). The Project proposes to demolish all existing on-site structures and redevelop the site as a warehouse distribution facility with approximately 270,337 square feet (sf) of building area and 54 south-facing loading dock doors. Of the total building square footage, the Project design allocates 255,337 sf for ground floor space and 15,000 sf for mezzanine space. Development of the Project site would require demolition of the existing buildings and structures, on-site landscaping, and on-site parking. The proposed building would be a one-story, 49-foot-tall speculative warehouse/distribution facility with ancillary office space.

6752-004j



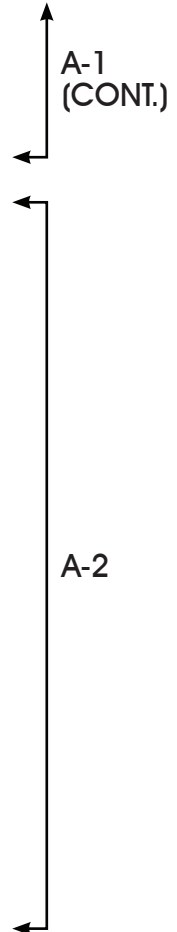


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The Project design includes surface parking with 251 parking spaces including 126 standard automobile parking stalls, 7 accessible parking stalls, 25 electric vehicle parking stalls, 93 additional standard stalls within the truck court, and 48 truck trailer parking spaces.

Based on our review of the DEIR and supporting documentation, we conclude that the DEIR fails to comply with the requirements of the California Environmental Quality Act (“CEQA”)<sup>1</sup>. The DEIR fails to adequately analyze the Project’s cumulative impacts in light of the community’s existing pollution burden resulting from similar warehouse projects, and fails to propose feasible and enforceable mitigation measures to reduce those impacts to a less than significant level, as required by CEQA. The DEIR also underestimates potentially significant air quality, greenhouse gas (“GHG”), and energy impacts by failing to concretely describe the Project – which may have significantly greater cold storage uses, transport refrigeration units (“TRUs”), and backup generators than disclosed in the DEIR. The DEIR also impermissibly fails to identify specific and effective mitigation to reduce the Project’s significant Vehicle Miles Traveled (“VMT”) impact to the greatest extent feasible before declaring the impact significant and unavoidable.<sup>2</sup> The DEIR’s transportation analysis also underestimates VMT and resultant GHG emissions. We reviewed the DEIR and its technical appendices with the assistance of transportation expert Norm Marshall.<sup>3</sup> We reserve the right to supplement these comments at a later date, and at any later proceedings related to this Project.<sup>4</sup>

As explained in these comments, the DEIR lacks substantial evidence to support its conclusions with regard to the Projects’ impacts relating to air quality, health risks, greenhouse gases, energy, and transportation. The City may not approve the Project until the City revises and recirculates the Project’s DEIR to adequately analyze the Project’s significant direct, indirect and cumulative impacts, and incorporates all feasible mitigation measures to avoid or minimize these impacts to the greatest extent feasible.



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<sup>1</sup> Pub. Resources Code §§ 21000 et seq.; 14 Cal. Code Regs (“CEQA Guidelines”) §§ 15000 et seq. (“CEQA Guidelines”).

<sup>2</sup> Pub. Resources Code, § 21081(a)(3), (b); *Covington v. Great Basin Unif. Air Pollution Control Dist.* (2019) 43 Cal.App.5th 867, 879-883.

<sup>3</sup> Mr. Marshall’s technical comments and curricula vitae are attached hereto as Exhibit A.

<sup>4</sup> Gov. Code § 65009(b); PRC § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield (“Bakersfield”)* (2004) 124 Cal. App. 4th 1184, 1199-1203; see *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal. App. 4th 1109, 1121. 6752-004j



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**I. STATEMENT OF INTEREST**

CARE CA is an unincorporated association of individuals and labor organizations that may be adversely affected by the potential public and worker health and safety hazards, and the environmental impacts of the Project. The coalition includes the District Council of Ironworkers and Southern California Pipe Trades DC 16, along with their members, their families, and other individuals who live and work in Ontario and in San Bernardino County.

CARE CA advocates for protecting the environment and the health of their communities' workforces. CARE CA seeks to ensure a sustainable construction industry over the long-term by supporting projects that offer genuine economic and employment benefits, and which minimize adverse environmental and other impacts on local communities. CARE CA members live, work, recreate, and raise their families in the City of Fontana and surrounding communities. Accordingly, they would be directly affected by the Project's environmental and health and safety impacts. Individual members may also work on the Project itself. They will be first in line to be exposed to any health and safety hazards that exist onsite.

In addition, CARE CA has an interest in enforcing environmental laws that encourage sustainable development and ensure a safe working environment for its members. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for business and industry to expand in the region, and by making the area less desirable for new businesses and new residents. Indeed, continued environmental degradation can, and has, caused construction moratoriums and other restrictions on growth that, in turn, reduce future employment opportunities.

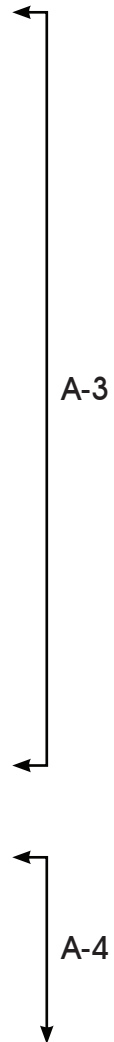
**II. LEGAL BACKGROUND**

CEQA requires public agencies to analyze the potential environmental impacts of their proposed actions in an EIR.<sup>5</sup> "The foremost principle under CEQA is that the Legislature intended the act to be interpreted in such manner as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language."<sup>6</sup>

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<sup>5</sup> PRC § 21100.

<sup>6</sup> *Laurel Heights Improvement Assn. v. Regents of Univ. of Cal ("Laurel Heights I")* (1988) 47 Cal.3d 376, 390 (internal quotations omitted).  
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CEQA has two primary purposes. First, CEQA is designed to inform decisionmakers and the public about the potential significant environmental effects of a project.<sup>7</sup> “Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made. Thus, the EIR ‘protects not only the environment but also informed self-government.’”<sup>8</sup> The EIR has been described as “an environmental ‘alarm bell’ whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return.”<sup>9</sup> As the CEQA Guidelines explain, “[t]he EIR serves not only to protect the environment but also to demonstrate to the public that it is being protected.”<sup>10</sup>

Second, CEQA requires public agencies to avoid or reduce environmental damage when “feasible” by requiring consideration of environmentally superior alternatives and adoption of all feasible mitigation measures.<sup>11</sup> The EIR serves to provide agencies and the public with information about the environmental impacts of a proposed project and to “identify ways that environmental damage can be avoided or significantly reduced.”<sup>12</sup> If the project will have a significant effect on the environment, the agency may approve the project only if it finds that it has “eliminated or substantially lessened all significant effects on the environment” to the greatest extent feasible and that any unavoidable significant effects on the environment are “acceptable due to overriding concerns.”<sup>13</sup>

While courts review an EIR using an “abuse of discretion” standard, “the reviewing court is not to ‘uncritically rely on every study or analysis presented by a project proponent in support of its position. A clearly inadequate or unsupported study is entitled to no judicial deference.’”<sup>14</sup> As the courts have explained, a

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<sup>7</sup> Pub. Resources Code § 21061; CEQA Guidelines §§ 15002(a)(1); 15003(b)-(e); *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 517 (“[T]he basic purpose of an EIR is to provide public agencies and the public in general with detailed information about the effect [that] a proposed project is likely to have on the environment; to list ways in which the significant effects of such a project might be minimized; and to indicate alternatives to such a project.”).

<sup>8</sup> *Citizens of Goleta Valley*, 52 Cal.3d at p. 564 (quoting *Laurel Heights I*, 47 Cal.3d at 392).

<sup>9</sup> *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810; see also *Berkeley Keep Jets Over the Bay v. Bd. of Port Comm’rs.* (2001) 91 Cal.App.4th 1344, 1354 (“*Berkeley Jets*”) (purpose of EIR is to inform the public and officials of environmental consequences of their decisions *before* they are made).

<sup>10</sup> CEQA Guidelines § 15003(b).

<sup>11</sup> CEQA Guidelines § 15002(a)(2), (3); see also *Berkeley Jets*, 91 Cal.App.4th at 1354; *Citizens of Goleta Valley*, 52 Cal.3d at p. 564.

<sup>12</sup> CEQA Guidelines § 15002(a)(2).

<sup>13</sup> PRC § 21081(a)(3), (b); CEQA Guidelines §§ 15090(a), 15091(a), 15092(b)(2)(A), (B); *Covington v. Great Basin Unified Air Pollution Control Dist.* (2019) 43 Cal.App.5th 867, 883.

<sup>14</sup> *Berkeley Jets*, 91 Cal.App.4th at p. 1355 (emphasis added) (quoting *Laurel Heights I*, 47 Cal.3d at 391, 409, fn. 12).  
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(CONT.)



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prejudicial abuse of discretion occurs “if the failure to include relevant information precludes informed decision-making and informed public participation, thereby thwarting the statutory goals of the EIR process.”<sup>15</sup> “The ultimate inquiry, as case law and the CEQA guidelines make clear, is whether the EIR includes enough detail ‘to enable who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project.’”<sup>16</sup>

A-4  
(CONT.)

### III. THE PROJECT DESCRIPTION IS INADEQUATE

The DEIR does not meet CEQA’s requirements because it fails to include an accurate and complete Project description, rendering the entire analysis inadequate. California courts have repeatedly held that “an accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR.”<sup>17</sup> CEQA requires that a project be described with enough particularity that its impacts can be assessed.<sup>18</sup> Without a complete project description, the environmental analysis under CEQA is impermissibly limited, thus minimizing the project’s impacts and undermining meaningful public review.<sup>19</sup> Accordingly, a lead agency may not hide behind its failure to obtain a complete and accurate project description.<sup>20</sup>

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CEQA Guidelines section 15378 defines “project” to mean “the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment.”<sup>21</sup> “The term “project” refers to the activity which is being approved and which may be subject to several discretionary approvals by governmental agencies. The term project does not mean each separate governmental approval.”<sup>22</sup>

<sup>15</sup> *Berkeley Jets*, 91 Cal.App.4th at p. 1355; see also *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 722 (error is prejudicial if the failure to include relevant information precludes informed decision making and informed public participation, thereby thwarting the statutory goals of the EIR process); *Galante Vineyards*, 60 Cal.App.4th at p. 1117 (decision to approve a project is a nullity if based upon an EIR that does not provide decision-makers and the public with information about the project as required by CEQA); *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931, 946 (prejudicial abuse of discretion results where agency fails to comply with information disclosure provisions of CEQA).

<sup>16</sup> *Sierra Club*, 6 Cal.5th at p. 516 (quoting *Laurel Heights I*, 47 Cal.3d at 405).

<sup>17</sup> *Stophemillenniumhollywood.com v. City of Los Angeles* (2019) 39 Cal.App.5th 1, 17; *Communities for a Better Environment v. City of Richmond* (“*CBE v. Richmond*”) (2010) 184 Cal.App.4th 70, 85–89; *County of Inyo v. City of Los Angeles* (3d Dist. 1977) 71 Cal.App.3d 185, 193.

<sup>18</sup> 14 CCR § 15124; see, *Laurel Heights I, supra*, 47 Cal.3d 376, 192-193.

<sup>19</sup> *Id.*

<sup>20</sup> *Sundstrom v. County of Mendocino* (“*Sundstrom*”) (1988) 202 Cal.App.3d 296, 311.

<sup>21</sup> CEQA Guidelines § 15378.

<sup>22</sup> *Id.*, § 15378(c).

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Courts have explained that a complete description of a project must “address not only the immediate environmental consequences of going forward with the project, but also all “*reasonably foreseeable* consequence[s] of the initial project.”<sup>23</sup> “If a[n]...EIR...does not adequately apprise all interested parties of the true scope of the project for intelligent weighing of the environmental consequences of the project, informed decisionmaking cannot occur under CEQA and the final EIR is inadequate as a matter of law.”<sup>24</sup>

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A-5  
(CONT.)  
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**A. The DEIR Fails to Describe the Project’s End Uses with Sufficient Particularity to Adequately Evaluate Trips Generated by the Project**

The DEIR assumes that the Project would include approximately 27,034 sf of high-cube cold storage uses (10% of the building space), with remaining portions of the building consisting of warehouse uses.<sup>25</sup> The DEIR explains that the Project’s end users are unknown.<sup>26</sup> In order to develop the traffic characteristics of the proposed Project, trip-generation statistics published in the Institute of Transportation Engineers (“ITE”) Trip Generation Manual for the proposed Project’s land uses was utilized.<sup>27</sup> For purposes of the trip generation assessment, the DEIR used ITE land use code 150 (Warehousing) and ITE land use code 157 (High-Cube Cold Storage Warehouse). Transportation expert Norm Marshall explains that these land use codes are just one of many land use codes potentially applicable to the Project.<sup>28</sup> The figure below shows other warehousing land use codes and compares trips generated by each land use.

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A-6  
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<sup>23</sup> *Laurel Heights I*, 47 Cal. 3d 376, 398 (emphasis added); see also *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal. 4th 412, 449-50.

<sup>24</sup> *Riverwatch v. Olivenhain Municipal Water Dist.* (2009) 170 Cal. App. 4th 1186, 1201.

<sup>25</sup> DEIR, pg. 3-13.

<sup>26</sup> DEIR, pg. 4.7-17.

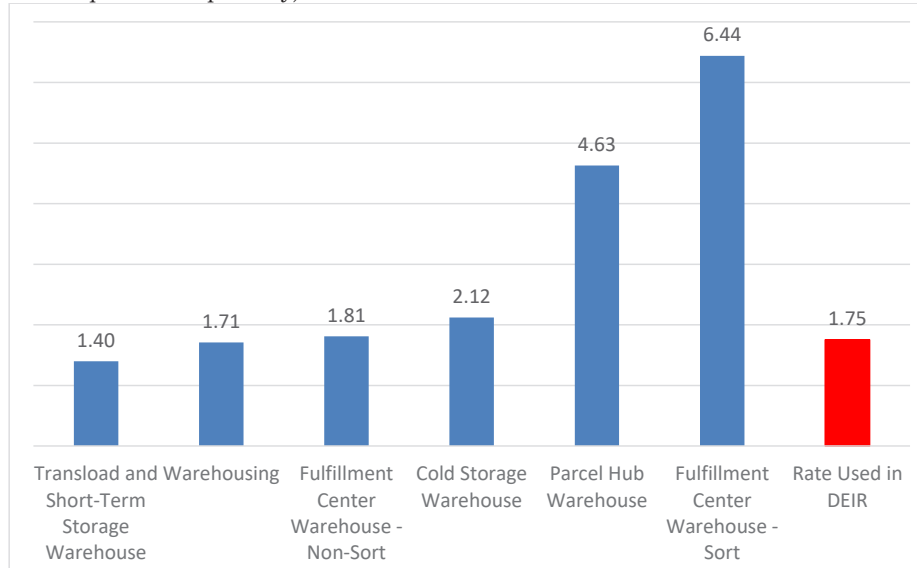
<sup>27</sup> DEIR, pg. 4.10-5.

<sup>28</sup> Marshall Comments, pg. 4.  
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Figure 1: Trip Generation Rates for Different Warehouse Categories (Trips Per 1000 Square Feet per Day)<sup>29</sup>



The DEIR fails to address why the other land use codes shown above are inapplicable to the Project. And the DEIR fails to provide sufficient information about the Project's expected uses and configuration for the public and decisionmakers to ascertain which of these end uses are possible for the Project. This informational defect affects the entire DEIR, as different types of warehousing have different environmental impacts.

Mr. Marshall explains that the land use code selected by the DEIR may drastically underestimate the Project's GHG and VMT impacts. Specifically, the Parcel Hub Warehouse trip generation rate is 2.6 times the rate used in the DEIR, and the Fulfillment Center Warehouse with Sorting rate is 5.2 times the rate used in the DEIR.<sup>30</sup> A greater number of trips generated results in greater traffic impacts and greater emissions of GHGs. Given the large uncertainty in the trips generated by the Project, the DEIR fails to meet CEQA's requirement that a project be

<sup>29</sup> Marshall Comments, pg. 5.

<sup>30</sup> *Id.*  
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 (CONT.)





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described with enough particularity that its impacts can be assessed.<sup>31</sup> Mr. Marshall recommends two approaches to resolve this issue: either a) applying a significantly higher and more conservative trip generation rate, or b) requesting as a condition of approval that trip generation will not exceed the number assumed in the EIR, and this be certified prior to beginning construction.<sup>32</sup> The City should revise and recirculate the DEIR to correct these deficiencies and to present a revised trip generation analysis which reflects reasonably foreseeable conditions at the Project site, or condition Project approval on the limitations assumed in the DEIR.

A-6  
(CONT.)

**B. The DEIR Fails to Substantiate Its Estimate that Just 10% Percent of the Project Will be Used for Cold Storage**

The DEIR assumes, without support, that the Project would only include approximately 27,034 sf of high-cube cold storage uses (10% of the building space), with remaining portions of the building consisting of warehouse uses.<sup>33</sup> The DEIR states that a limitation of 10% of the building for potential cold storage is based on the Project Applicant’s understanding of the cold storage market demand.<sup>34</sup> However, this assumption, even if based on a reasonable interpretation of current market conditions, is subject to fluctuate during the life of the Project and is not otherwise reflected in any enforceable conditions related to Project use.

A-7

In order for the City to rely on the Applicant’s 10% cold storage assumption in the CEQA document, the DEIR would need to include binding measures or conditions which limit warehouse use at the Project to no more than 10% cold storage. Absent such a restriction, the DEIR may substantially estimate the air quality, public health, and energy impacts of cold storage use at the Project site.

Cold storage warehouse generates greater environmental impacts than a high cube warehouse. Cold storage generates more trips per square foot and has higher energy impacts due to the low temperatures required by the facility’s transport refrigeration units (“TRUs”) and on-site storage. TRUs are refrigeration systems powered by integral diesel engines.<sup>35</sup> The refrigeration systems are used to control the environment of temperature-sensitive products transported in insulated

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<sup>31</sup> 14 CCR § 15124; *see, Laurel Heights I, supra*, 47 Cal.3d 376, 192-193.

<sup>32</sup> Marshall Comments, pg. 5.

<sup>33</sup> DEIR, pg. 3-13.

<sup>34</sup> *Id.*

<sup>35</sup> California Air Resources Board, 2022 TRU Technology Assessment, pg. 1, <https://ww2.arb.ca.gov/sites/default/files/2022-10/CARB%202022%20TRU%20Technology%20Assessment%2010-14-22.pdf>. 6752-004j



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trucks, trailers, shipping containers, or railcars. The California Air Resources Board (“CARB”) states that TRUs emit diesel particulate matter (“DPM”), fine particulate matter (“PM2.5”), oxides of nitrogen (“NOx”), and GHGs while in transit and during stationary operation at refrigerated warehouses or distribution centers, grocery stores, seaport facilities, intermodal railyards, and other locations of operation. CARB explains that communities near facilities where TRUs operate bear a disproportionate health burden:

PM2.5 pollution contributes to more fatalities than other air pollutants and can lodge deep in the lungs or pass through the lungs to enter the blood stream and affect the heart, brain, and other organs. Adverse health effects from long-term exposure to PM2.5 pollution include increased risk of heart attacks and heart disease, impaired lung development in children, the development and exacerbation of asthma, and premature death. NOx is a precursor to ozone, which can cause irritation and damage lung tissue, worsen asthma and chronic illnesses including obstructive pulmonary disease and reduce lung function.<sup>36</sup>

CARB also explains that TRUs’ emissions of GHGs contribute towards climate change,<sup>37</sup> and that TRUs generate noise impacts: “TRU operations produce noise that can be problematic when deliveries that often occur late evening or early morning are near residential neighborhoods, hotels, hospitals, and elder care facilities... One study conducted by LSA Associates found that a diesel-powered TRU operating at high idle produces an A-weighted decibel (dBA) noise rating of 104 dBA, while a diesel truck at idle produces a noise rating of 96 dBA.”<sup>38</sup>

By assuming the Project will only include 10% cold storage, the DEIR may drastically underestimate the Project’s impacts in each of these areas. The DEIR does not provide supporting evidence demonstrating that cold storage uses would be limited to 10% of the Project site for the duration of the Project’s life. Due to ever-increasing population and market demands in Southern California, it is also reasonably foreseeable that the Project may attract end users, either now or in future years of the Project’s life, which require more than 10% cold storage. As a result, the DEIR’s assumption is not supported by substantial evidence.

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(CONT.)

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<sup>36</sup> California Air Resources Board, 2022 TRU Technology Assessment, pg. 10.

<sup>37</sup> California Air Resources Board, 2022 TRU Technology Assessment, pg. 10.

<sup>38</sup> California Air Resources Board, 2022 TRU Technology Assessment, pg. 17-18.  
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In the California Attorney General’s (“AG”) guidance for warehouse projects, the AG recommends that, unless a developer adopts mitigation measures limiting cold storage impacts, the developer should record a covenant on the title of the underlying property to ensuring that the property cannot be used to provide refrigerated warehouse space.<sup>39</sup> The City should include such a title restriction for the Project unless the DEIR’s 10% cold storage assumption is revised to analyze and mitigate impacts associated with a more conservative and fact-based cold-storage use percentage.

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**C. The Project Description Fails to Include Reasonably Foreseeable Backup Generators**

The DEIR fails to disclose potential backup/emergency stationary generators for the Project’s operations. The DEIR’s project description does not address whether backup generators are a reasonably foreseeable component of the Project, and the DEIR’s technical analyses assume no backup generators will be installed for operations. The DEIR does not disclose any conditions or mitigation measures that limit or prevent use of backup generators. Thus, the DEIR must disclose and analyze the potential use of backup generators because (1) they a reasonably foreseeable consequence of the Project, and (2) the use of backup generators will expand the Project’s environmental effects.<sup>40</sup>

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In *East Oakland Stadium Alliance v. City of Oakland*,<sup>41</sup> the Court of Appeal upheld an EIR’s analysis of emissions from backup generators. The EIR’s analysis assumed that generators would operate for 50 hours of testing and maintenance annually, while allocating no time for actual emergency use. In discussing the lead agency’s duty to analyze backup generator emissions, the Court stated that “if the annual need for emergency generator use is reasonably foreseeable, the EIR was not entitled to disregard such use merely because it would occur at unpredictable times.”<sup>42</sup> The Court explained that use of a generator was reasonably foreseeable because, “[a]s noted in the EIR, some parts of the Bay Area are subject to

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<sup>39</sup> *Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act (Updated September 2022)*, pg. 9, available at <https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf> (“Unless the owner of the facility records a covenant on the title of the underlying property ensuring that the property cannot be used to provide refrigerated warehouse space, constructing electric plugs for electric transport refrigeration units at every dock door and requiring truck operators with transport refrigeration units to use the electric plugs when at loading docks.”).

<sup>40</sup> *Id.*

<sup>41</sup> (2023) 889 Cal. App. 5th 1226.

<sup>42</sup> *Id.* at 1252.

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predictable, sustained power outages undertaken to reduce the risk of fire.”<sup>43</sup> Thus, “[t]he EIR was required to make neither a generally applicable nor a worst-case assumption; rather it was required to make a reasonable estimate of likely annual use of the generators at the project site.”<sup>44</sup>

Here, as in *East Oakland Stadium Alliance*, back-up generators are a reasonably foreseeable consequence of the Project due to increasingly common Public Safety Power Shutoff (“PSPS”) events and extreme heat events. Extreme heat events (“EHE”) are defined as periods where in the temperatures throughout California exceed 100 degrees Fahrenheit.<sup>45</sup> From January 2019 through December 2019, Southern California Edison reported 158 of their circuits underwent a PSP event.<sup>46</sup> In Los Angeles County, two circuits had 4 PSPS events during that period, lasting an average of 35 to 38 hours. The total duration of the PSPS events lasted between 141 hours to 154 hours in 2019. According to the California Public Utilities Commission (CPUC) de-energization report<sup>47</sup> in October 2019, there were almost 806 PSPS events that impacted almost 973,000 customers (~7.5% of households in California) of which ~854,000 of them were residential customers. The California Air Resources Board estimates that with 973,000 customers impacted by PSPS events in October 2019, approximately 125,000 back-up generators were used by customers to provide electricity during power outage.<sup>48</sup> The widespread use of back-up generators to adapt to PSPS and EHE events suggests that back-up generators are a reasonably foreseeable consequence of the Project.

Further demonstrating that backup generators are reasonably foreseeable is that the DEIR assumes that 10% of the building (27,034 sf) would be cold storage.<sup>49</sup> A cold storage warehouse has the ability to keep temperature sensitive items in a

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<sup>43</sup> *Id.* at 1253.

<sup>44</sup> *Id.*

<sup>45</sup> Governor of California. 2021. Proclamation of a state of emergency. June 17, 2021.

<sup>46</sup> SCAQMD. 2020. Proposed Amendment To Rules (PARS) 1110.2, 1470, and 1472. Dated December 10, 2020. [http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1110.2/1110-2\\_1470\\_1472/par1110-2\\_1470\\_wgm\\_121020.pdf?sfvrsn=6](http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1110.2/1110-2_1470_1472/par1110-2_1470_wgm_121020.pdf?sfvrsn=6).

<sup>47</sup> <https://www.cpuc.ca.gov/deenergization/> as cited in CARB, 2020. Potential Emission Impact of Public Safety Power Shutoff (PSPS), Emission Impact: Additional Generator Usage associated With Power Outage..

<sup>48</sup> California Air Resources Board, Emission Impact: Additional Generator Usage Associated with Power Outage (January 30, 2020), available at <https://ww2.arb.ca.gov/resources/documents/emissions-impact-generator-usage-during-psps>.

<sup>49</sup> DEIR, pg. 3-2 (Although the future tenant(s) of the proposed building is unknown at this time, for purposes of analysis within this EIR it is assumed that the building would include approximately 27,034 s.f. of high-cube cold storage uses (10% of the building space), with remaining portions of the building consisting of warehouse uses).

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temperature-controlled environment, which requires a constant energy supply to power refrigeration. Cold storage warehouses thus commonly utilize backup generators.<sup>50</sup> Backup generators commonly rely on fuels such as natural gas or diesel,<sup>51</sup> and thus can significantly impact air quality, GHG emissions, and public health through toxic DPM emissions.<sup>52</sup> Since the Project may include cold storage, it is reasonably foreseeable that the Project would require on-site backup generators.

Generators can emit criteria air pollutants, greenhouse gases, and toxic air contaminants (“TACs”). Backup generators commonly rely on fuels such as natural gas or diesel,<sup>53</sup> and thus can significantly impact public health through DPM

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<sup>50</sup> California Air Resources Board, Comments re: Notice of Preparation (NOP) for the United States Cold Storage Hesperia Project (Project) Draft Environmental Impact Report (DEIR), State Clearinghouse No. 2020069036 (July 24, 2020), available at <https://ww2.arb.ca.gov/sites/default/files/classic/toxics/ttdceqalist/uscoldstorage.pdf> (stating that the HRA prepared for the Project should account for all potential health risks from Project-related diesel PM emission sources such as backup generators, TRUs, and heavy-duty truck traffic); Kusing Power Generator, <http://ksdieselgenerator.com/2019/backup-generator-for-cold-storage-room.html>, last visited 6/21/2021 (“Backup power supply is necessary for cold storage room to remain functional to avoid deterioration of high value-added goods such as vegetables and food stored in the room after long period of power failure”); East Coast Power Systems, Electrical Power Systems for Warehouses, <https://www.ecpowersystems.com/resources/electrical-power-systems/electrical-power-systems-for-warehouses/> (explaining that some warehouses that deal with refrigeration have to have multiple power backup generators by law).

<sup>51</sup> SCAQMD, Fact Sheet on Emergency Backup Generators, <http://www.aqmd.gov/home/permits/emergency-generators> (“Most of the existing emergency backup generators use diesel as fuel”).

<sup>52</sup> California Air Resources Board, Emission Impact: Additional Generator Usage Associated with Power Outage (January 30, 2020), available at <https://ww2.arb.ca.gov/resources/documents/emissions-impact-generator-usage-during-psps> (showing that generators commonly rely on gasoline or diesel, and that use of generators during power outages results in excess emissions); California Air Resources Board, Use of Back-up Engines for Electricity Generation During Public Safety Power Shutoff Events (October 25, 2019), available at <https://ww2.arb.ca.gov/resources/documents/use-back-engines-electricity-generation-during-public-safety-power-shutoff> (“When electric utilities de-energize their electric lines, the demand for back-up power increases. This demand for reliable back-up power has health impacts of its own. Of particular concern are health effects related to emissions from diesel back-up engines. Diesel particulate matter (DPM) has been identified as a toxic air contaminant, composed of carbon particles and numerous organic compounds, including over forty known cancer-causing organic substances. The majority of DPM is small enough to be inhaled deep into the lungs and make them more susceptible to injury. Much of the back-up power produced during PSPS events is expected to come from engines regulated by CARB and California’s 35 air pollution control and air quality management districts (air districts)”).

<sup>53</sup> SCAQMD, Fact Sheet on Emergency Backup Generators, <http://www.aqmd.gov/home/permits/emergency-generators> (“Most of the existing emergency backup generators use diesel as fuel”).  
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emissions.<sup>54</sup> Diesel back-up generators emit significant amounts of Nitrogen Oxides (“NOx”), sulfur dioxides (“SO2”), particulate matter (“PM10”), carbon dioxide (“CO2”), carbon monoxide (“CO”), and volatile organic compounds (“VOC”).<sup>55</sup> Omission of a generator system results in an underestimation of the Project’s air quality, greenhouse gas, and health risk impacts.

In sum, omission of the Project’s generator results in an underestimation of the Project’s air quality, greenhouse gas, energy, and health risk impacts. The DEIR must be revised to resolve this project description inconsistency and correct the affected impacts analyses to accurately disclose the Project’s potentially significant impacts.

**IV. THE DEIR FAILS TO DISCLOSE, ANALYZE AND MITIGATE POTENTIALLY SIGNIFICANT IMPACTS**

An EIR must fully disclose all potentially significant impacts of a Project and implement all feasible mitigation to reduce those impacts to less than significant levels. The lead agency’s significance determination with regard to each impact

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<sup>54</sup> California Air Resources Board, Emission Impact: Additional Generator Usage Associated with Power Outage (January 30, 2020), available at <https://ww2.arb.ca.gov/resources/documents/emissions-impact-generator-usage-during-psps> (showing that generators commonly rely on gasoline or diesel, and that use of generators during power outages results in excess emissions); California Air Resources Board, Use of Back-up Engines for Electricity Generation During Public Safety Power Shutoff Events (October 25, 2019), available at <https://ww2.arb.ca.gov/resources/documents/use-back-engines-electricity-generation-during-public-safety-power-shutoff> (“When electric utilities de-energize their electric lines, the demand for back-up power increases. This demand for reliable back-up power has health impacts of its own. Of particular concern are health effects related to emissions from diesel back-up engines. Diesel particulate matter (DPM) has been identified as a toxic air contaminant, composed of carbon particles and numerous organic compounds, including over forty known cancer-causing organic substances. The majority of DPM is small enough to be inhaled deep into the lungs and make them more susceptible to injury. Much of the back-up power produced during PSPS events is expected to come from engines regulated by CARB and California’s 35 air pollution control and air quality management districts (air districts)”).

<sup>55</sup> University of California, Riverside Bourns College of Engineering—Center for Environmental Research and Technology, Air Quality Implications Of Backup Generators In California, (March 2005), pg. 8, available at <https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=84c8463118e4813a117db3d768151a8622c4bf6b>; South Coast AQMD, Fact Sheet on Emergency Backup Generators (“Emissions of Nitrogen Oxides (NOx) from diesel-fired emergency engines are 200 to 600 times greater, per unit of electricity produced, than new or controlled existing central power plants fired on natural gas. Diesel-fired engines also produce significantly greater amounts of fine particulates and toxics emissions compared to natural gas fired equipment.”), available at <http://www.aqmd.gov/home/permits/emergency-generators#Fact2.6752-004j>

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must be supported by accurate scientific and factual data.<sup>56</sup> An agency cannot conclude that an impact is less than significant unless it produces rigorous analysis and concrete substantial evidence justifying the finding.<sup>57</sup>

Moreover, the failure to provide information required by CEQA is a failure to proceed in the manner required by CEQA.<sup>58</sup> Challenges to an agency’s failure to proceed in the manner required by CEQA, such as the failure to address a subject required to be covered in an EIR or to disclose information about a project’s environmental effects or alternatives, are subject to a less deferential standard than challenges to an agency’s factual conclusions.<sup>59</sup> In reviewing challenges to an agency’s approval of an EIR based on a lack of substantial evidence, the court will “determine de novo whether the agency has employed the correct procedures, scrupulously enforcing all legislatively mandated CEQA requirements.”<sup>60</sup>

Additionally, CEQA requires agencies to commit to all feasible mitigation measures to reduce significant environmental impacts.<sup>61</sup> In particular, the lead agency may not make required CEQA findings, including finding that a project impact is significant and unavoidable, unless the administrative record demonstrates that it has adopted all feasible mitigation to reduce significant environmental impacts to the greatest extent feasible.<sup>62</sup>

Even when the substantial evidence standard is applicable to agency decisions to certify an EIR and approve a project, reviewing courts will not ‘uncritically rely on every study or analysis presented by a project proponent in support of its position. A clearly inadequate or unsupported study is entitled to no judicial deference.’<sup>63</sup>

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<sup>56</sup> CEQA Guidelines § 15064(b).

<sup>57</sup> *Kings Cty. Farm Bur. v. Hanford* (1990) 221 Cal.App.3d 692, 732.

<sup>58</sup> *Sierra Club v. State Bd. Of Forestry* (1994) 7 Cal.4th 1215, 1236.

<sup>59</sup> *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 435.

<sup>60</sup> *Id., Madera Oversight Coal., Inc. v. County of Madera* (2011) 199 Cal. App. 4th 48, 102.

<sup>61</sup> CEQA Guidelines § 15002(a)(2).

<sup>62</sup> PRC § 21081(a)(3), (b); CEQA Guidelines §§ 15090, 15091; *Covington v. Great Basin Unified Air Pollution Control Dist.* (2019) 43 Cal.App.5th 867, 883.

<sup>63</sup> *Berkeley Jets*, 91 Cal.App.4th at 1355.

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**A. The DEIR Fails to Adequately Disclose, Analyze and Mitigate the Project’s Cumulative Impacts**

An EIR must evaluate a cumulative impact if the project’s incremental effect combined with the effects of other projects is “cumulatively considerable.”<sup>64</sup> This determination is based on an assessment of the project’s incremental impacts “viewed in connection with the effects of past project, the effects of other current projects, and the effects of probable future projects.”<sup>65</sup> Proper cumulative impact analysis is vital because “the full environmental impact of a proposed project cannot be gauged in a vacuum. One of the most important environmental lessons that has been learned is that environmental damage often occurs incrementally from a variety of small sources. These sources appear insignificant when considered individually, but assume threatening dimensions when considered collectively with other sources with which they interact.”<sup>66</sup>

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**1. The DEIR Fails to Provide a List of Cumulative Projects**

The CEQA Guidelines set forth two methods for satisfying the cumulative impacts analysis requirement: the list of projects approach and the summary of projections approach.<sup>67</sup> Under the former, an adequate discussion of cumulative impacts requires “a list of past, present, and probable future projects producing related or cumulative impacts...”<sup>68</sup> Relevant factors when compiling a list of related projects include the environmental resource being examined and the location and type of the project.<sup>69</sup> The Guidelines expressly recognize that project type may be important “when the impact is specialized, such as a particular air pollutant or mode of traffic.”<sup>70</sup>

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Here, the DEIR states that it uses a combination of the two methods as appropriate for each impact analysis:

The summary of projections approach is used in this EIR, except for the evaluation of cumulative transportation effects (for purposes of demonstrating General Plan policy compliance) and vehicular-related air

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<sup>64</sup> CEQA Guidelines § 15130(a).

<sup>65</sup> *Id.*, §§ 15065(a)(3), 15355(b).

<sup>66</sup> *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 114.

<sup>67</sup> CEQA Guidelines, § 15130(b)(1) and (2).

<sup>68</sup> *Id.*, § 15130(b)(1)(A).

<sup>69</sup> *Id.*, § 15130(b)(2).

<sup>70</sup> *Id.*

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quality, greenhouse gas, and noise impacts, for which the analysis combines the summary of projections approach with the manual addition of past, present, and reasonably foreseeable projects (“combined approach”). The City determined the combined approach to be appropriate because long-range planning documents contain a sufficient amount of information to enable an analysis of cumulative effect for all subject areas, with the exception of transportation (and vehicular-related air quality, greenhouse gas, and noise effects), which requires a greater level of detailed study.<sup>71</sup>

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However, the DEIR fails to provide a list of cumulative projects. And the appendices containing the air quality, greenhouse gas, and noise analyses do not consider past, present, and reasonably foreseeable projects. The air quality, greenhouse gas, and noise analyses should be revised to include consideration of cumulative projects, as recommended by the DEIR itself.

**2. The DEIR’s Cumulative Air Emissions Analysis Does Not Comply with CEQA or Attorney General Warehouse Guidance**

The DEIR fails to adequately analyze the Project’s cumulative air quality emissions. The DEIR asserts that, under South Coast Air Quality Management District (“SCAQMD”) guidance, any exceedance of a regional or localized threshold for criteria pollutants also is considered to be a cumulatively-considerable effect, while air pollutant emissions that fall below applicable regional and/or localized thresholds are not considered cumulatively-considerable.<sup>72</sup>

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The DEIR fails to note that SCAQMD’s approach is outdated, as evidenced by its ongoing process to update its cumulative impacts guidance.<sup>73</sup> The DEIR’s approach has been also rejected by the courts for failing to comply with CEQA’s requirement that a project mitigate impacts that are “cumulatively considerable.”<sup>74</sup> The City’s failure to actually examine the Project’s cumulative air quality impacts violates CEQA’s requirement to analyze cumulative impacts.

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<sup>71</sup> DEIR, pg. 4-2.

<sup>72</sup> DEIR, Appendix B, pg. 53.

<sup>73</sup> See e.g., [http://www.aqmd.gov/docs/default-source/ceqa/documents/wgm-3\\_20230124.pdf?sfvrsn=6](http://www.aqmd.gov/docs/default-source/ceqa/documents/wgm-3_20230124.pdf?sfvrsn=6).

<sup>74</sup> PRC § 21083(b)(2); 14 CCR § 15130; *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.

App. 3d 692, 719-21.

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The leading case on this issue is *Kings County Farm Bureau v. City of Hanford*.<sup>75</sup> In *Kings County*, the city prepared an EIR for a 26.4-megawatt coal-fired cogeneration plant. Notwithstanding the fact that the EIR found that the project region was out of attainment for PM<sub>10</sub> and ozone, the city failed to incorporate mitigation for the project’s cumulative air quality impacts from project emissions because it concluded that the Project would contribute “less than one percent of area emissions for all criteria pollutants.”<sup>76</sup> The city reasoned that, because the project’s air emissions were small in ratio to existing air quality problems, that this necessarily rendered the project’s “incremental contribution” minimal under CEQA. The court rejected this approach, finding it “contrary to the intent of CEQA.” The court stated:

We find the analysis used in the EIR and urged by GWF avoids analyzing the severity of the problem and allows the approval of projects which, when taken in isolation, appear insignificant, but when viewed together, appear startling. Under GWF’s “ratio” theory, the greater the over-all problem, the less significance a project has in a cumulative impacts analysis. We conclude the standard for a cumulative impacts analysis is defined by the use of the term “collectively significant” in Guidelines section 15355 and the analysis must assess the collective or combined effect of energy development. The EIR improperly focused upon the individual project’s relative effects and omitted facts relevant to an analysis of the collective effect this and other sources will have upon air quality.<sup>77</sup>

The DEIR’s analysis is similarly flawed because while the DEIR admits that the Project region is out of attainment for ozone, PM<sub>10</sub>, and PM<sub>2.5</sub>, the City fails to analyze or mitigate the Project’s emissions’ cumulative air quality impacts.<sup>78</sup> Given that there are multiple existing large warehouses immediately adjacent to the proposed Project site,<sup>79</sup> as well as the proliferation of warehouse projects in the region and San Bernardino County, the DEIR is inadequate in its analysis of the Project’s potentially significant cumulative air quality impacts.

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<sup>75</sup> *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal. App. 3d 692 (“Kings County”); see also, *Friends of Oroville v. City of Oroville* (2013) 219 Cal. App. 4th 832, 841-42.

<sup>76</sup> *Id.* at 719.

<sup>77</sup> *Id.* at 721.

<sup>78</sup> DEIR, pg. 5.2-17.

<sup>79</sup> DEIR, pg. 2-4, Figure 2-1.  
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The SCAQMD approach used in the DEIR also directly conflicts with the AG recent guidance document setting forth best practices for evaluating the environmental impacts of warehouse projects like this one under CEQA.<sup>80</sup> With respect to cumulative air quality and GHG emissions analysis, the Attorney General’s guidance states that best practices include “[w]hen analyzing cumulative impacts, thoroughly considering the project’s incremental impact in combination with past, present, and reasonably foreseeable future projects, *even if the project’s individual impacts alone do not exceed the applicable significance threshold* [emphasis added].”<sup>81</sup>

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The DEIR’s cumulative air quality impacts analysis does not comply with CEQA. The City must prepare a revised EIR that properly evaluates and mitigates such impacts.

**3. The DEIR’s Health Risk Analysis Fails to Consider the Health Impacts of Cumulative Emissions from Nearby Warehouses**

The DEIR’s analysis of cumulative health risks is flawed for the same reason as the air quality analysis. The DEIR points to guidance from SCAQMD to reason that emissions of TACs are considered significant if a quantified health risk analysis (“HRA”) shows an increased risk of greater than 10 in 1 million.<sup>82</sup> And the DEIR provides that Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable, and vice versa.<sup>83</sup> This approach is inadequate because it fails to analyze the Project’s cumulative effects with the existing and proposed warehouses surrounding the Project site.

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CEQA provides that the incremental effects of an individual project are cumulatively considerable if the effects are significant when “viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.”<sup>84</sup> Courts have held that where a community already

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<sup>80</sup> *Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act* (Updated September 2022), available at <https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf>.

<sup>81</sup> *Id.*, pg. 7.

<sup>82</sup> DEIR, Appendix B2, pg. 5.

<sup>83</sup> *Id.*

<sup>84</sup> CEQA requires a lead agency consider whether the combined effects from both the proposed project and other projects would be “cumulatively considerable.” (CEQA Guidelines, § 15130, subd. (a).) The incremental effects of an individual project are cumulatively considerable if the effects are 6752-004j



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bears a high pollution burden, a lead agency must consider “whether any additional amount” of pollution caused by the project “should be considered significant in light of the serious nature” of the existing problem.<sup>85</sup>

Here, the DEIR’s approach of using a project-level analysis as a substitute for a cumulative impacts analysis fails to address that the Project would be impacting a community already bearing a high pollution burden. The DEIR’s CalEEMod output sheets show the community’s pollution burden as scoring 91.1 in AQ-Ozone, 95.7 in AQ-PM, and 96.6 in AQ-DPM.<sup>86</sup> A high score reflects a higher pollution burden compared to other census tracts in the state, with a maximum CalEnviroScreen score of 100.<sup>87</sup> Despite this high pollution burden, the DEIR concludes that the Project would not contribute to cumulative impacts because its own impacts would result in an increased risk of less than 10 in 1 million. This analysis violates principles of *Kings County Farm Bureau v. City of Hanford* and guidance from Attorney General. The City must revise and recirculate a DEIR that analyzes the Project’s potentially significant cumulative health risk impacts.

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**B. The DEIR’s Quantified Health Risk Analysis Underestimates Operational Mobile Source Impacts**

The DEIR includes an HRA addressing the Project’s construction and operational impacts. The operational HRA is flawed because it omits analysis of TRUs.<sup>88</sup>

As explained above, TRUs emit DPM, PM2.5, NOx, and GHGs while in transit and during stationary operation at refrigerated warehouses or distribution centers, grocery stores, seaport facilities, intermodal railyards, and other locations of operation.<sup>89</sup> CARB explains that communities near facilities where TRUs operate bear a disproportionate health burden:

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significant when “viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.” (Id., §§ 15065, subd. (a)(3), 15355, subd. (b).)

<sup>85</sup> *Kings County Farm Bureau, supra*, 221 Cal.App.3d at 718; *San Joaquin Raptor/Wildlife Rescue Ctr. v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 720.

<sup>86</sup> DEIR, Appendix B2, PDF pg. 64-65.

<sup>87</sup> *Id.*

<sup>88</sup> DEIR, Appendix B2, pg. 13-18.

<sup>89</sup> California Air Resources Board, 2022 TRU Technology Assessment, pg. 1, <https://ww2.arb.ca.gov/sites/default/files/2022-10/CARB%202022%20TRU%20Technology%20Assessment%2010-14-22.pdf>.

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PM2.5 pollution contributes to more fatalities than other air pollutants and can lodge deep in the lungs or pass through the lungs to enter the blood stream and affect the heart, brain, and other organs. Adverse health effects from long-term exposure to PM2.5 pollution include increased risk of heart attacks and heart disease, impaired lung development in children, the development and exacerbation of asthma, and premature death. NOx is a precursor to ozone, which can cause irritation and damage lung tissue, worsen asthma and chronic illnesses including obstructive pulmonary disease and reduce lung function.<sup>90</sup>

Thus, the omission of TRUs in the DEIR's HRA results in an underestimate of the Project's health risk impacts. The DEIR's significance findings are thus not supported by substantial evidence. The DEIR must be revised to adequately disclose the health risk impacts from TRUs.

**C. The DEIR Underestimates Project VMT and Mobile Source GHGs**

Transportation expert Norm Marshall explains that the DEIR potentially underestimates average trip lengths for both trucks and passenger vehicles.<sup>91</sup> Longer trip lengths results in greater impacts (including air quality, GHGs, and VMT). As a result, the analyses that rely on these trip lengths lack the support of substantial evidence. The DEIR air quality analysis relies on the follow trip lengths:

To determine emissions from trucks for the proposed industrial uses, the analysis incorporated the SCAQMD recommended truck trip length of 15.3 miles for 2-axle (LHDT1, LHDT2), 14.2 miles for 3-axle (MHDT) trucks, and 40 miles for 4+-axle (HHDT) trucks and weighting the average trip lengths using traffic trip percentages.<sup>92</sup>

The DEIR states that these truck trip distances are recommended by SCAQMD, but Mr. Marshall explains that SCAQMD does not make a recommendation that these trip distances be used for warehouse project EIRs.<sup>93</sup> Rather, the AG's guidance document for warehouse projects states:

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<sup>90</sup> California Air Resources Board, 2022 TRU Technology Assessment, pg. 10.

<sup>91</sup> Marshall Comments, pp. 6-7.

<sup>92</sup> DEIR, Appendix B1, pg. 37.

<sup>93</sup> Marshall Comments, pg. 6-7.

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CEQA requires full public disclosure of a project’s anticipated truck trips, which entails calculating truck trip length based on likely truck trip destinations, rather than the distance from the facility to the edge of the air basin, local jurisdiction, or other truncated endpoint. All air pollution associated with the project must be considered, regardless of where those impacts occur.<sup>94</sup>

In contrast to the approach recommended by the AG, the DEIR’s estimated trip distances did not account for the Project’s likely trip destinations. Mr. Marshall explains that, while it may be too early to determine specific truck trip origins and destinations, it is notable that important major freight origins and destinations are considerably further away than the trip lengths assumed in the DEIR.<sup>95</sup> These include the Ports of Los Angeles and Long Beach – approximately 60 miles away. The DEIR’s analysis thus likely underestimates trip distances.

The DEIR also underestimates lengths of passenger trips generated by the Project. Mr. Marshall observes that CalEEMod trip lengths were used for passenger trips.<sup>96</sup> But in the DEIR’s VMT analysis, the DEIR acknowledges that the Project’s VMT per service population, i.e., the VMT per worker, is significantly higher than the average for the City of Ontario, and therefore, also significantly higher than the regional average.<sup>97</sup> Mr. Marshall explains that the average auto trip lengths should be increased from the default values to account for the VMT-inefficient project location. Thus, the DEIR’s analysis lacks the support of substantial evidence, and must be revised.

**D. The DEIR Fails to Identify All Feasible VMT Mitigation Measures**

The DEIR concludes that the Project would result in a significant and unavoidable VMT impact despite mitigation included in the DEIR. Specifically, the DEIR estimates that the Project would exceed the VMT screening thresholds by a wide margin: 22.56% in the baseline year and 28.47% in the horizon year.<sup>98</sup> The DEIR identifies the following mitigation for this significant impact:

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<sup>94</sup> Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act (Updated September 2022), pg. 7.

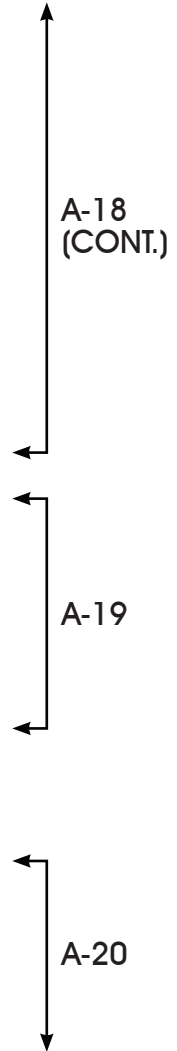
<sup>95</sup> Marshall Comments, pg. 7.

<sup>96</sup> *Id.*; DEIR, Appendix F, pg. 56

<sup>97</sup> Marshall Comments, pg. 7.

<sup>98</sup> Marshall Comments, pg. 1.

6752-004j





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MM 4.10-1: Prior to the issuance of a certificate of occupancy, the building operator shall prepare and submit for approval to the City of Ontario Community Development Department a Transportation Demand Management Program (TDMP). The TDMP shall specify measures that the building operator will commit to implementing in an effort to reduce vehicle miles traveled for its on-site employees. The TDMP shall include provisions, incentives, and programs for employee ridesharing programs, carpools, vanpools, transit use, bike travel, avoidance of peak periods of traffic congestion, and on-site parking preferences for zero-emission vehicles, among other items that have reasonable potential of reducing employee reliance on single-occupant gas-powered vehicles during peak time travel periods (rush hours).<sup>99</sup>

This measure fails to meet CEQA’s standards for mitigation. CEQA provides that if the project will have a significant effect on the environment, the agency may approve the project only if it finds that it has “eliminated or substantially lessened all significant effects on the environment” to the greatest extent feasible and that any unavoidable significant effects on the environment are “acceptable due to overriding concerns.”<sup>100</sup> Further, EIRs must mitigate significant impacts through measures that are “fully enforceable through permit conditions, agreements, or other legally binding instruments.”<sup>101</sup> Deferring formulation of mitigation measures is generally impermissible.<sup>102</sup> If identification of specific mitigation measures is impractical until a later stage in the Project, specific performance criteria must be articulated and further approvals must be made contingent upon meeting these performance criteria.<sup>103</sup> Mitigation that does no more than allow approval by a county department without setting enforceable standards is inadequate.<sup>104</sup>

Here, the measure improperly defers identification of specific VMT-reducing mitigation measures to a future date. MM 4.10-1 does not commit to any particular measures to reduce VMT. Nor does the DEIR articulate specific performance criteria to ensure that impacts would be mitigated to the greatest extent feasible. Mr. Marshall notes that, while MM 4.10-1 lists potential measures to reduce VMT,

A-20  
(CONT.)

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<sup>99</sup> DEIR, pg. S-24.

<sup>100</sup> PRC § 21081(a)(3), (b); CEQA Guidelines §§ 15090(a), 15091(a), 15092(b)(2)(A), (B); *Covington v. Great Basin Unified Air Pollution Control Dist.* (2019) 43 Cal.App.5th 867, 883.

<sup>101</sup> CEQA Guidelines, § 15126.4, subd. (a)(2).

<sup>102</sup> *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 308-309; Pub. Resources Code, § 21061.

<sup>103</sup> *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1393; *Quail Botanical, supra*, 29 Cal.App.4th at pg. 1604, fn. 5.

<sup>104</sup> *Endangered Habitats League, Inc. v. County of Orange*, (2005) 131 Cal.App.4th 777, 794. 6752-004j



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there is no clear commitment or description of the measures.<sup>105</sup> Mr. Marshall explains that the measures listed in MM 4.10-1 can be formulated in a variety of ways that determine the magnitude of VMT reductions.<sup>106</sup> MM 4.10-1 is thus improperly deferred mitigation that does no more than allow approval by a county department without setting enforceable standards.<sup>107</sup>

As a result of this improper deferral of mitigation, the DEIR also fails to comply with CEQA's requirement to reduce all significant effects on the environment to the greatest extent feasible. MM 4.10-1 must be revised to clearly require the all feasible VMT-reducing measures be adopted until the expected 28.47% excess VMT is mitigated.

**V. CONCLUSION**

For the reasons discussed above, the DEIR for the Project is inadequate under CEQA. It must be revised to provide legally adequate analysis of, and mitigation for, all of the Project's potentially significant impacts. These revisions will necessarily require that the DEIR be recirculated for additional public review. Until the DEIR has been revised and recirculated, as described herein, the City may not lawfully approve the Project.

Thank you for your consideration of these comments. Please include them in the record of proceedings for the Project.

Sincerely,

Aidan P. Marshall

APM:ljl

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<sup>105</sup> Marshall Comments, pg. 2.

<sup>106</sup> *Id.*

<sup>107</sup> *Endangered Habitats League, Inc. v. County of Orange*, (2005) 131 Cal.App.4th 777, 794. 6752-004j

A-20  
(CONT.)

A-21





## EXHIBIT A



# 5355 East Airport Drive Project Final Environmental Impact Report

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794 Sawnee Bean Road  
Thetford Center VT 05075  
Norman Marshall, President  
(802) 356-2969  
nmarshall@smartmobility.com

October 4, 2023

Aidan P. Marshall  
Adams Broadwell Joseph & Cardozo  
601 Gateway Boulevard, Suite 1000  
South San Francisco, CA 94080

**Subject: 5355 East Airport Drive Project**

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Dear Mr. Marshall,

I have reviewed trip generation, vehicle miles traveled (VMT) impacts and greenhouse gas (GHG) impacts of the City of Ontario Draft Environmental Impact Report for a proposed warehouse project at 5355 East Airport Drive ("DEIR"). I make the following findings:

- 1) The DEIR acknowledges significant and unavoidable VMT impact. Furthermore, the DEIR documents that the project would exceed the VMT screening thresholds by a wide margin: 22.56% in the baseline year and 28.47% in the horizon year.
- 2) The proposed VMT mitigation is not fully specified or quantified in the DEIR and appears to fall far short of what would be required to reduce project VMT below the City's threshold. Achieving significant VMT mitigation for this project may be impossible – but mitigation must be specified and quantified for the project to be properly evaluated.
- 3) Project trip generation could be much higher than assumed. Given the large uncertainty in the project's trip generation, the applicant should take one of two paths -either a) applying a significantly higher and more conservative trip generation rate, or b) requesting as a condition of approval that trip generation will not exceed the number assumed in the EIR, and this be certified prior to beginning construction.
- 4) Project GHG emissions could be much higher than assumed. In addition to trip generation possibly being underestimated, average trip lengths for both trucks and passenger vehicles are likely to be underestimated in the DEIR.

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A-22  
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**Significant and Unavoidable VMT impact**

The DEIR states that the project would have a “Significant and Unavoidable [VMT] Impact.” (DEIR, p. S-24)

DEIR Appendix J, “IE Distribution Center #14 Vehicle Miles Traveled (VMT) Analysis,” evaluates the project relative to the City of Ontario’s VMT screens and concludes:

- TPA [Transit Priority Area] screening criteria is not met.
- Low VMT Area screening criteria is not met.
- Project Type screening criteria is not met.

As the project fails these screens, a full VMT analysis was performed using the San Bernardino Transportation Analysis Model (SBTAM). The table below copied from DEIR Appendix J, p. 9 summarizes the results of this analysis.

**TABLE 10: PROJECT COMPARISON TO CITY OF ONTARIO VMT THRESHOLD**

	Baseline	Buildout Year
Impact Threshold	27.61	27.61
Project	33.84	35.47
Percent Change	+22.56%	+28.47%
Potentially Significant?	Yes	Yes

As shown in the reproduced table, the proposed project would exceed the City’s VMT threshold by 22.56% in the baseline year and by an even larger 28.47% in the buildout year (2050).

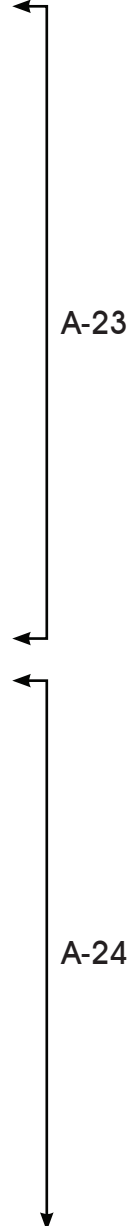
**The VMT Mitigation Described in the VMT is Inadequate**

The City of Ontario’s VMT Resolution adopted June 16, 2020, reiterates General Plan Mobility Element M1-2: “Mitigation of impacts. We require development to mitigate its traffic impacts.”

In the case of the proposed project, full mitigation would reduce VMT to below the threshold, i.e., the 28.47% excess VMT in the horizon year would be eliminated. The EIR should quantify the expected VMT reduction from mitigation. Unless the reduction is sufficient to achieve the VMT threshold, the EIR should justify why greater mitigation is infeasible.

The VMT mitigation described in the DEIR is:

**MM 4.10-1** Prior to the issuance of a certificate of occupancy, the building operator shall prepare and submit for approval to the City of Ontario Community Development Department a Transportation Demand Management Program (TDMP). The TDMP shall specify measures that the building operator will commit to implementing in an effort to reduce vehicle miles traveled for its on-site employees. The TDMP shall include provisions, incentives, and programs for employee ridesharing programs, carpools, vanpools, transit use, bike travel, avoidance of peak periods of traffic congestion, and on-site parking preferences for zero-emission vehicles, among other items that have reasonable potential of reducing employee reliance on single-occupant gas-powered vehicles during peak time travel periods (rush hours). (DEIR, p. S-24)





The above wording is ambiguous. Is this a commitment to include all the measures listed, or only to a subset of the measures. For the included measures, what are the magnitudes of the different incentives. Are the included measures voluntary or mandatory? Is monitoring included? What is the total VMT reduction from the package, and is this reduction sufficient to adequately address the expected 28.47% excess VMT in the horizon year? If the planned reduction is not achieved, what are the consequences?

A-24  
(CONT.)

The California Air Pollution Control Officers Association (CAPCOA) provides on quantifying VMT mitigation measures in its publication *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity: Designed for Local Governments, Communities, and Project Developers (Final Draft, December 2021)*. It states:

The Handbook builds on CAPCOA’s previous efforts to provide accurate and reliable quantification measures. In 2010, CAPCOA published *Quantifying Greenhouse Gas Mitigation Measures: A Resource for Local Government to Assess Emissions Reductions from Greenhouse Gas Mitigation Measures* (hereafter referred to as the “2010 Handbook”). Since that time, climate science has evolved and GHG reduction practices have advanced in sophistication. New priorities have also arisen, such as strengthening climate resilience and infusing health and equity into integrated planning efforts. Therefore, CAPCOA decided it was time to develop an updated and expanded resource to provide the latest data and methods to quantify GHG emissions reductions, climate change vulnerability reductions, and equity improvements in a single resource: The Handbook. (p. 2-3)

The Handbook makes a critical distinction between voluntary and mandatory Commuter Trip Reduction (“CTR”) programs:

T-5 Implement Commute Trip Reduction Program (Voluntary) – up to 4% VMT reduction:

Voluntary CTR programs must include the following elements to apply the VMT reductions reported in literature. • Employer-provided services, infrastructure, and incentives for alternative modes such as ridesharing (Measure T-8), discounted transit (Measure T-9), bicycling (Measure T-10), vanpool (Measure T-11), and guaranteed ride home. • Information, coordination, and marketing for said services, infrastructure, and incentives (Measure T-7). (*Handbook*, p. 83)

T-5 Implement Commute Trip Reduction Program (Mandatory Implementation and Monitoring) – up to 26% VMT reduction:

The mandatory CTR program must include all other elements (i.e., Measures T-7 through T-11) described for the voluntary program (Measure T-5) plus include mandatory trip reduction requirements (including penalties for non-compliance) and regular monitoring and reporting to ensure the calculated VMT reduction matches the observed VMT reduction). (*Handbook*, p. 86)

A-25



A 26% reduction at this site may be impossible given the relatively poor transit , bicycle and walk accessibility plus long commute distances that making walking and biking impractical. The DEIR states:

Public transit service in the region is provided by Omnitrans, a public transit agency that serves various jurisdictions within San Bernardino County. There are no public transit routes that run adjacent to the Project Site under existing conditions. The nearest transit routes to the Project Site are Route 61 which has a stop located along Fourth Street, approximately 0.9 mile north of the Project Site and Route 82 which has a stop located at South Etiwanda and Jurupa Avenue, approximately 1.2 miles southeast of the Project Site. There are no existing bicycle facilities within the vicinity of the Project Site. The closest bike route to the Project Site is a Class III bike route located along Ontario Mills Parkway, approximately 0.4 mile north of the Project Site. There are no sidewalks on either side of East Airport Drive, with the exception of a small portion along the adjacent development frontage directly to the west at 5351 East Airport Drive. (DEIR, p. 2-11)

Furthermore, ridesharing and vanpooling would be complicated by a geographically dispersed workforce and likely multiple shifts.

Joining with other employers would be beneficial. The more employers that support these VMT reduction programs, the stronger these programs will be, and the regional benefit of participating may be greater than just the onsite VMT reductions. For example, a vanpool could include multiple employers IE Commuter, a program of the San Bernardino County Transportation Authority in partnership with the Riverside County Transportation Commission, offers a full range of services to help employers set up and manage VMT reduction programs.<sup>1</sup>

Achieving significant VMT mitigation for this project may be impossible – but mitigation must be fully specified and quantified for the project to be properly evaluated.

**Project Trip Generation Could Be Much Higher Than Assumed**

The project is comprised of a 270,377 square feet warehouse building. (DEIR, Appendix K, p. 1) The tenants have not been identified, and the nature of the operations are unknown at this time. For the purpose of estimating project trip generation, the DEIR assumes a mix of 90% warehousing and 10% high-cube cold storage. (DEIR, Appendix K, p. 1) This mix is highly speculative, and the project may not even include either of the assumed trip generation categories.

The DEIR estimates trip generation based on the rates in the Institute of Transportation Engineers (“ITE”) *Trip Generation* manual. *Trip Generation* includes other categories of warehouses. As shown in the figure below, the trip generation rates applied in the DEIR are much lower than rates for some other warehouse categories.

A-25  
(CONT.)

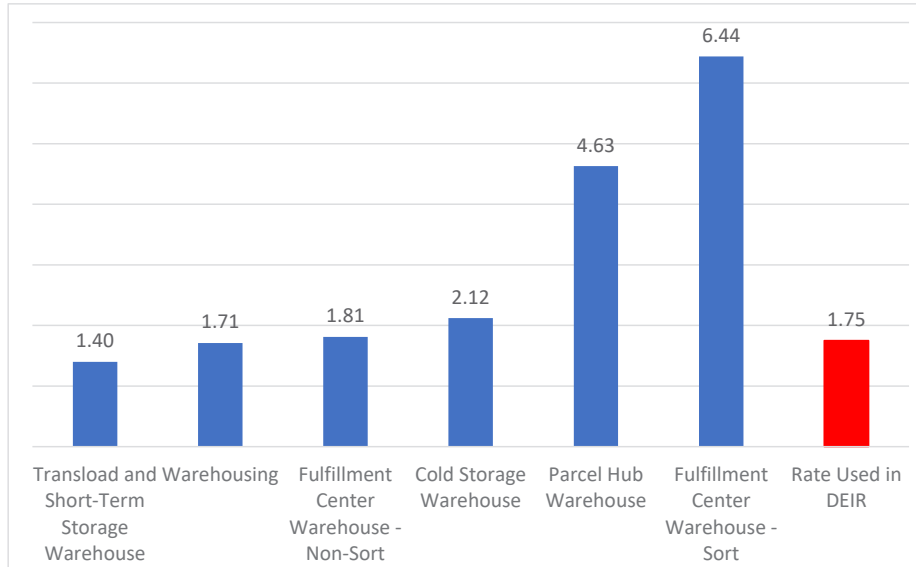
A-26

A-27

<sup>1</sup> <https://www.iecommuter.org/rp2/home/EmployerSupport>



*Trip Generation Rates for Different Warehouse Categories (Trips Per 1000 Square Feet per Day)*



A-27  
(CONT.)

The Parcel Hub Warehouse trip generation rate is 2.6 times the rate used in the DEIR, and the Fulfillment Center Warehouse with Sorting rate is 5.2 times the rate used in the DEIR.

A 2019 study of warehouse trip generation done by WSP for the Western Riverside COG documented even higher trip generation rates.<sup>2</sup> This study was based on counts at 16 warehouses, segmented between 11 fulfillment centers and 5 parcel hubs.

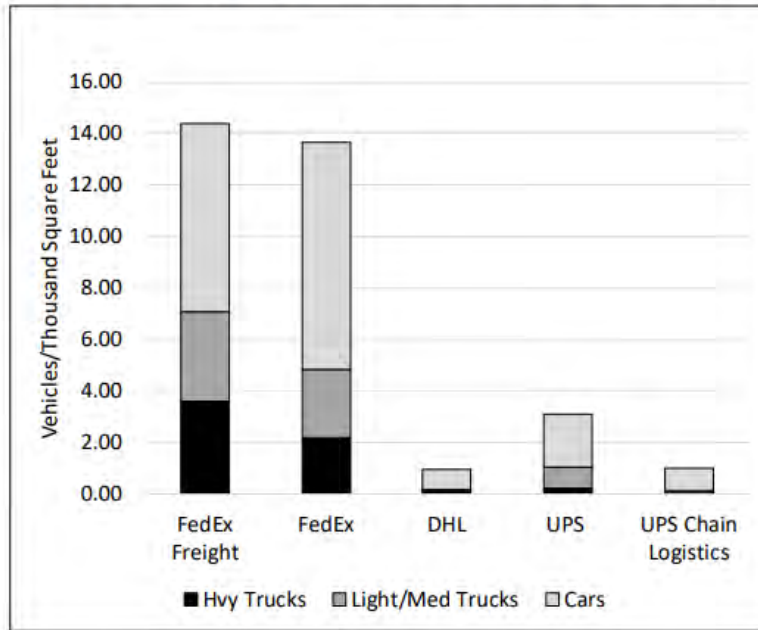
The observed trip generation rates at two of the parcel hub sites are even higher than the rates shown in the figure above.. As shown in the figure below, the highest trip generation rates were observed at two of the parcel hubs, with rates of about 14 trips per 1000 square feet per day, i.e., 8 times the rate used in the DEIR.

Given the large uncertainty in the project’s trip generation, the applicant should take one of two paths - either a) applying a significantly higher and more conservative trip generation rate, or b) requesting as a condition of approval that trip generation will not exceed the number assumed in the EIR, and this be certified prior to beginning construction.

<sup>2</sup> <https://wrcog.us/AgendaCenter/ViewFile/Agenda/ 02212019-292>



**Exhibit 11: Daily Trip Generation Rates at Parcel Hubs**



A-27  
(CONT.)

**Project VMT and GHG Emissions Could Be Much Higher Than Assumed**

Any underestimate of trip generation translates into underestimated GHG emissions. It is likely that the DEIR also underestimates average trip lengths.

The DEIR air quality analysis (Appendix B1) states:

To determine emissions from trucks for the proposed industrial uses, the analysis incorporated the SCAQMD recommended truck trip length of 15.3 miles for 2-axle (LHDT1, LHDT2), 14.2 miles for 3-axle (MHDT) trucks, and 40 miles for 4+-axle (HHDT) trucks and weighting the average trip lengths using traffic trip percentages. (DEIR, Appendix B1, p. 37)

The DEIR misstates that these truck trip distances are “recommended” by SCAQMD. The truck trip lengths are used in calculations of possible mitigation in *Second Draft Staff Report Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program. And Proposed Rule 316 -Fees for Rule 2305.*<sup>3</sup> The reference for these numbers is the 2016 SCAG travel demand model (p. 117) and there is no indication that these numbers are intended for any

<sup>3</sup> [www.aqmd.gov/docs/default-source/planning/fbmsm-docs/pr-2305\\_sr\\_2nd-draft\\_4-7-21\\_clean.pdf](http://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/pr-2305_sr_2nd-draft_4-7-21_clean.pdf)

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## 5355 East Airport Drive Project Final Environmental Impact Report

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use beyond this single document. The 40-mile heavy truck trip length also appears in a 2014 slide presentation.<sup>4</sup> In neither case, are these numbers presented as general recommendations for warehouse EIRs.

The Attorney General's September 2022 guidance: *Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act*<sup>5</sup> states:

CEQA requires full public disclosure of a project's anticipated truck trips, which entails calculating truck trip length based on likely truck trip destinations, rather than the distance from the facility to the edge of the air basin, local jurisdiction, or other truncated endpoint. All air pollution associated with the project must be considered, regardless of where those impacts occur. (p. 7)

While it is too early to determine truck trip origins and destinations, it is notable that important major freight origins and destinations are considerably further away than the trip lengths assumed in the DEIR. These include the Ports of Los Angeles and Long Beach that are approximately 60 miles away. It would be more conservative to assume longer average truck distances in the air quality and GHG analyses.

The DEIR states that CalEEMod trip lengths were used for passenger trips:

In order to determine emissions from passenger car vehicles, CalEEMod defaults for trip length and trip purpose were utilized. (DEIR, Appendix F, p. 56)

In the VMT analysis, the DEIR documents that the project's VMT per service population, i.e., the VMT per worker, is significantly higher than the average for the City of Ontario, and therefore, also significantly higher than the regional average. Therefore, the average auto trip lengths should be increased from the default values to account for the VMT-inefficient project location.

Underestimating truck and passenger vehicle VMT translates to underestimating GHG as well.

A-28  
(CONT.)

Sincerely,

Norman L. Marshall

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<sup>4</sup> [https://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/sclc\\_warehouse-presentation-final.pdf](https://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/sclc_warehouse-presentation-final.pdf)

<sup>5</sup> <https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf>





# 5355 East Airport Drive Project Final Environmental Impact Report

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## Resume

### **NORMAN L. MARSHALL, PRESIDENT**

[nmarshall@smartmobility.com](mailto:nmarshall@smartmobility.com)

#### **EDUCATION:**

Master of Science in Engineering Sciences, Dartmouth College, Hanover, NH, 1982  
Bachelor of Science in Mathematics, Worcester Polytechnic Institute, Worcester, MA, 1977

#### **PROFESSIONAL EXPERIENCE: (33 Years, 19 at Smart Mobility, Inc.)**

Norm Marshall helped found Smart Mobility, Inc. in 2001. Prior to this, he was at RSG for 14 years where he developed a national practice in travel demand modeling. He specializes in analyzing the relationships between the built environment and travel behavior and doing planning that coordinates multi-modal transportation with land use and community needs.

#### **Regional Land Use/Transportation Scenario Planning**

Portland Area Comprehensive Transportation System (PACTS) – the Portland Maine Metropolitan Planning Organization. Updating regional travel demand model with new data (including AirSage), adding a truck model, and multiclass assignment including differentiation between cash toll and transponder payments.

Loudoun County Virginia Dynamic Traffic Assignment – Enhanced subarea travel demand model to include Dynamic Traffic Assignment (Cube). Model being used to better understand impacts of roadway expansion on induced travel.

Vermont Agency of Transportation-Enhanced statewide travel demand model to evaluate travel impacts of closures and delays resulting from severe storm events. Model uses innovate Monte Carlo simulations process to account for combinations of failures.

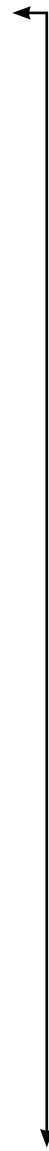
California Air Resources Board – Led team including the University of California in \$250k project that reviewed the ability of the new generation of regional activity-based models and land use models to accurately account for greenhouse gas emissions from alternative scenarios including more compact walkable land use and roadway pricing. This work included hands-on testing of the most complex travel demand models in use in the U.S. today.

Climate Plan (California statewide) – Assisted large coalition of groups in reviewing and participating in the target setting process required by Senate Bill 375 and administered by the California Air Resources Board to reduce future greenhouse gas emissions through land use measures and other regional initiatives.

Chittenden County (2060 Land use and Transportation Vision Burlington Vermont region) – led extensive public visioning project as part of MPO’s long-range transportation plan update.

Flagstaff Metropolitan Planning Organization – Implemented walk, transit and bike models within regional travel demand model. The bike model includes skimming bike networks including on-road and off-road bicycle facilities with a bike level of service established for each segment.

Chicago Metropolis Plan and Chicago Metropolis Freight Plan (6-county region)— developed alternative transportation scenarios, made enhancements in the regional travel demand model, and used the enhanced



A-29



model to evaluate alternative scenarios including development of alternative regional transit concepts. Developed multi-class assignment model and used it to analyze freight alternatives including congestion pricing and other peak shifting strategies.

**Municipal Planning**

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City of Grand Rapids – Michigan Street Corridor – developed peak period subarea model including non-motorized trips based on urban form. Model is being used to develop traffic volumes for several alternatives that are being additional analyzed using the City’s Synchro model

City of Omaha - Modified regional travel demand model to properly account for non-motorized trips, transit trips and shorter auto trips that would result from more compact mixed-use development. Scenarios with different roadway, transit, and land use alternatives were modeled.

City of Dublin (Columbus region) – Modified regional travel demand model to properly account for non-motorized trips and shorter auto trips that would result from more compact mixed-use development. The model was applied in analyses for a new downtown to be constructed in the Bridge Street corridor on both sides of an historic village center.

City of Portland, Maine – Implemented model improvements that better account for non-motorized trips and interactions between land use and transportation and applied the enhanced model to two subarea studies.

City of Honolulu – Kaka’ako Transit Oriented Development (TOD) – applied regional travel demand model in estimating impacts of proposed TOD including estimating internal trip capture.

City of Burlington (Vermont) Transportation Plan – Led team that developing Transportation Plan focused on supporting increased population and employment without increases in traffic by focusing investments and policies on transit, walking, biking and Transportation Demand Management.

**Transit Planning**

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Regional Transportation Authority (Chicago) and Chicago Metropolis 2020 – evaluated alternative 2020 and 2030 system-wide transit scenarios including deterioration and enhance/expand under alternative land use and energy pricing assumptions in support of initiatives for increased public funding.

Capital Metropolitan Transportation Authority (Austin, TX) Transit Vision – analyzed the regional effects of implementing the transit vision in concert with an aggressive transit-oriented development plan developed by Calthorpe Associates. Transit vision includes commuter rail and BRT.

Bus Rapid Transit for Northern Virginia HOT Lanes (Breakthrough Technologies, Inc and Environmental Defense.) – analyzed alternative Bus Rapid Transit (BRT) strategies for proposed privately-developing High Occupancy Toll lanes on I-95 and I-495 (Capital Beltway) including different service alternatives (point-to-point services, trunk lines intersecting connecting routes at in-line stations, and hybrid).

**Roadway Corridor Planning**

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I-30 Little Rock Arkansas – Developed enhanced version of regional travel demand model that integrates TransCAD with open source Dynamic Traffic Assignment (DTA) software, and used to model I-30 alternatives. Freeway bottlenecks are modeled much more accurately than in the base TransCAD model.



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(CONT.)



South Evacuation Lifeline (SELL) – In work for the South Carolina Coastal Conservation League, used Dynamic Travel Assignment (DTA) to estimate evaluation times with different transportation alternatives in coastal South Carolina including a new proposed freeway.

Hudson River Crossing Study (Capital District Transportation Committee and NYSDOT) – Analyzing long term capacity needs for Hudson River bridges which a special focus on the I-90 Patroon Island Bridge where a microsimulation VISSIM model was developed and applied.

**PUBLICATIONS AND PRESENTATIONS (partial list)**

DTA Love: Co-leader of workshop on Dynamic Traffic Assignment at the June 2019 Transportation Research Board Planning Applications Conference.

Forecasting the Impossible: The Status Quo of Estimating Traffic Flows with Static Traffic Assignment and the Future of Dynamic Traffic Assignment. *Research in Transportation Business and Management* 2018.

Assessing Freeway Expansion Projects with Regional Dynamic Traffic Assignment. Presented at the August 2018 Transportation Research Board Tools of the Trade Conference on Transportation Planning for Small and Medium Sized Communities.

Vermont Statewide Resilience Modeling. With Joseph Segale, James Sullivan and Roy Schiff. Presented at the May 2017 Transportation Research Board Planning Applications Conference.

Assessing Freeway Expansion Projects with Regional Dynamic Traffic Assignment. Presented at the May 2017 Transportation Research Board Planning Applications Conference.

Pre-Destination Choice Walk Mode Choice Modeling. Presented at the May 2017 Transportation Research Board Planning Applications Conference.

A Statistical Model of Regional Traffic Congestion in the United States, presented at the 2016 Annual Meeting of the Transportation Research Board.

**MEMBERSHIPS/AFFILIATIONS**

Associate Member, Transportation Research Board (TRB)

Member and Co-Leader Project for Transportation Modeling Reform, Congress for the New Urbanism (CNU)

A-29  
(CONT.)



**Responses to Comment A**

**Adams Broadwell Joseph & Cardozo on behalf of Californians Allied for a Responsible Economy dated October 5, 2023.**

- A-1 This comment consists of introductory remarks and identifies that the comments on the Draft EIR are being provided by Adams Broadwell Joseph & Cardozo on behalf of the Californians Allied for a Responsible Economy (CARECA) and provides a summary of the Project. This comment does not raise any issues concerning the environmental analysis provided in the Draft EIR and thus no further response is required.
- A-2 This comment introduces the comment's supporting documents drafted by Norm Mashall, and asserts that the Draft EIR fails to fails to comply with the requirements of CEQA, adequately analyze the Project's cumulative impacts, proposed feasible and enforceable mitigation measures, underestimates potentially significant air quality, greenhouse gas (GHG) emissions, and energy impacts, fails to identify specific and effective mitigation measure to reduce the Project's significant Vehicle Miles Traveled (VMT) impacts, and underestimates VMT and GHG emissions. As described in the following responses, the commenter's assertions are incorrect. Refer to Response to Comments A-6 to A-28.
- A-3 The comment includes a statement of interest describing CARECA's organization, role, members, and purposes. The statement of interest is noted. We note from this comment that the "coalition" is comprised of various labor unions, whose primary interest is securing jobs through a project labor agreement. Employment and business concerns raised in this comment do not raise any associated environmental issues and are therefore not within the purview of CEQA; however, this comment will be provided to the City's decision makers for their review and consideration of the Project as a whole. This comment does not raise any issues concerning the environmental analysis provided in the Draft EIR and thus no further response is required.
- A-4 This comment interprets and provides a summary of CEQA requirements from the Guidelines and case law. This comment does not raise any issues concerning the environmental analysis provided in the Draft EIR and thus no further response is required. The comment incorrectly states that the Draft EIR does not satisfy CEQA's purpose to disclose significant environmental effects and avoid or reduce environmental impacts. This comment does not provide evidence that the Draft EIR does not meet the requirements of CEQA and thus no further response is required.
- A-5 The commenter incorrectly asserts that the Draft EIR does not include an accurate and complete Project Description and summarizes CEQA requirements and case law related to describing a project. The comment generally criticizes the Draft EIR, is unsupported and does not identify any specific concerns or provide evidence that the Project Description is incomplete. The City agrees with the commenter that a Project Description must be "accurate, stable, and finite," which is exactly what is provided in the Draft EIR. Response to Comments A-6 through A-9, below, address specific comments related to the Project Description and demonstrate that the



Draft EIR includes an accurate and complete Project Description that adequately meets CEQA requirements.

- A-6 The commenter first summarizes the trip generation assumptions used for the Project and provides a graph depicting trip generations rates for different warehouse categories. The commenter then asserts that the Draft EIR fails to address why other land use codes from the Institute of Transportation Engineers (ITE) Trip Generation Manual were inapplicable to the Project, that the land use code used for the Draft EIR underestimated the Project's GHG and VMT impacts, and that the Draft EIR should be revised by applying a significantly higher and more conservative trip generation rate, or requests as a condition of approval that trip generation will not exceed the number assumed in the Draft EIR.

Urban Crossroads, a firm of professional traffic consultants and transportation engineers, was the author of the Project's traffic study and the study was reviewed and independently accepted by the City for accuracy. Urban Crossroads considered a number of different ITE rates for various industrial land use categories, taking into consideration the proposed building size and orientation to determine an ITE rate that would be conservative, but realistic when considering potential future tenants. The Project is a proposed 270,377 square foot warehouse building that has been evaluated assuming 27,034 square feet of high-cube cold storage use (10% of the total square footage) and 243,303 square feet of warehousing use (90% of the total square footage).

The following land uses were considered but not evaluated as the descriptions did not fit the Project's description, size, or anticipated future tenant/use. The ITE General Light Industrial (ITE 110) land use category identifies an average of approximately 80,000 square feet or less for the sites surveyed and used to determine the weekday daily and peak hour of the adjacent street traffic trip generation rates. (Note: the peak hour of the adjacent street traffic refers to the traffic generated during the peak hours of 7-9 AM and 4-6 PM which are the peak commute periods.) Similarly, the ITE Manufacturing (ITE 140) land use category identifies an average of 130,000 to 200,000 square feet for the site surveyed and is used to determine the weekday daily and peak hour of the adjacent street traffic trip generation rates. The General Light Industrial and Manufacturing land use categories are not suitable for the Project as the average building square footage is much smaller than that being proposed for the Project at 230,377 square feet.

The High-Cube Fulfillment Center Warehouse land use category has two sub-categories in ITE: Non-Sort Facility and Sort Facility. The Non-Sort facilities are defined as those warehouses that ship large-boxed items and primarily use automation (as opposed to manual means). The Sort facilities are defined as those that ship out smaller goods/items, which require extensive sorting (manual means). The average size of the sites surveyed for the High-Cube Fulfillment Center Warehouse – Non-Sort land use category range between 780,000 to 820,000 square feet while the Sort land use category identifies an average square footage in excess of 1,300,000 square feet. In addition, the trip generation for the High-Cube Fulfillment Center Warehouse land use category is very low for truck trip generation, with the majority of trips being attributable to passenger cars/employee trips. The Project applicant is not proposing and



the Project's design would not support a high-cube (sort) fulfillment center or high-cube parcel hub user and the layout of the site with 251 parking spaces would not reasonably accommodate the on-site parking required to support these uses. The daily trip generation for these uses would range between 1,096 and 1,690 daily trips for the same 270,377 square feet of development, which is not feasible considering the design functionality of the site.

Although the Project's anticipated use and size most closely aligns with the ITE Warehousing land use category, a mix with the High-Cube Cold Storage Warehouse rate was selected because the overall daily trip rate would be more conservative (higher) as compared to the ITE Warehousing rate and would account for refrigerated vehicles for the purposes of other technical studies (air quality, health risk assessment, greenhouse gas, etc.) in the event that up to 10% of the building was used for a cold storage purpose. The Project (warehousing use) evaluates the trip generation based on a mix of the Warehousing (ITE 150) and High-Cube Cold Storage (ITE 157) rates which is a reasonable and conservative representation of the mix of potential uses for the Project. Thus, the City's experts disagree with the commenter. No additions, revisions, or corrections to the Draft EIR are necessary and no further response is required.

- A-7 The commenter asserts that the Draft EIR's assumption for 10% of high-cube cold storage uses is subject to fluctuate during the life of the Project and is not otherwise reflected in any enforceable conditions related to Project use. The commenter further asserts that the Draft EIR would need to include binding measures or conditions which limit warehouse use at the Project to no more than 10% cold storage. In response to this comment, the City has added a condition of approval to the Project to limit cold storage use to no more than 27,034 square feet or a comparable amount of cold storage square footage that produces no greater adverse environmental effects than those disclosed in the EIR unless further studied under CEQA. If more than 27,034 square feet of cold storage square footage is proposed and analyzed and would produce greater adverse environmental effects than those disclosed in the EIR, an amendment to the Project approvals would be required, which would be subject to additional CEQA review.
- A-8 The commenter states that cold storage warehouse generates greater environmental impacts than a high cube warehouse and opines that the Draft EIR may have underestimated the Project's air quality and GHG impacts by assuming that only 10% of the building space could include high-cube cold storage uses. As stated in Section 3.0, *Project Description*, of the Draft EIR, because the user(s) is speculative and some building users require small amounts of warehouse space to be temperature controlled, for purposes of analysis within the Draft EIR it is reasonably assumed that the building would include approximately 27,034 s.f. of high-cube cold storage uses (approximately 10% of the building space), with remaining portions of the building consisting of warehouse uses. This reasonable estimate is based on the Project Applicant's understanding of the cold storage space market demand in the Inland Empire for buildings in the Project's size range, which tend to have small cold storage needs for perishable products such as nutritional supplements, flowers and plants, medicines, candles, cosmetics, organic textiles, and specialized products, should the building user need to store these types of



products. (Refer to Draft EIR p. 3-13) Thus, no additions, revisions, or corrections to the Draft EIR are necessary and no further response is required. Regardless, in response to this comment, the City has added a condition of approval to the Project to limit cold storage use to no more than 27,034 square feet or a comparable amount of cold storage square footage that produces no greater adverse environmental effects than those disclosed in the EIR.

A-9 The commenter states a recommendation from the California Attorney General’s guidance for warehouse projects that, unless a developer adopts mitigation measures limiting cold storage impacts, the developer should record a covenant on the title of the underlying property to ensuring that the property cannot be used to provide refrigerated warehouse space. The commenter further states that the City should include such a title restriction for the Project unless the Draft EIR’s 10% cold storage assumption is revised to analyze and mitigate impacts associated with a more conservative and fact-based cold-storage use percentage. In response to this comment, the City has added a condition of approval to the Project to limit cold storage use to no more than 27,034 square feet or a comparable amount of cold storage square footage that produces no greater adverse environmental effects than those disclosed in the EIR.

A-10 The commenter asserts that the Draft EIR fails to disclose potential backup/emergency stationary generator use for the Project operations. The commenter cites *East Oakland Stadium Alliance v. City of Oakland* for the proposition that “if the annual need for emergency generator use is reasonably foreseeable, the EIR was not entitled to disregard such use merely because it would occur at unpredictable times” and further states that back-up generators are a reasonably foreseeable consequence of the Project due to increasingly common Public Safety Power Shutoff (PSPS) events and extreme heat events that had been occurring in 2019 in the Bay area and Los Angeles County. The commenter further states the omission of a generator system results in an underestimation of the Project’s air quality, greenhouse gas, and health risk impacts.

According to the latest data from the California Public Safety Power Shutoff Interactive Map, the census tract containing the Project Site (Census Tract 6071012700) is not subjected to PSPS events with a zero frequency of PSPS outages annually.<sup>1</sup> However, in an event that emergency generators are used for Project operations, the generators would only be used in emergency power failure or for routine testing and maintenance. Such intermittent use would not result in a substantial or measurable amount of emissions, since by the very nature of the activity, it would be short-term, intermittent, and infrequent. Assuming the Project would utilize a 197 horsepower (hp) diesel-powered emergency water pump and a 762 hp diesel-powered emergency backup generator, calculations were performed by Urban Crossroads. For analytical purposes, it is anticipated that the fire pump and emergency generator would each operate for a maximum time of 0.5 hour per day and 26 hours per year for maintenance and testing purposes. As shown in the table below, if the Project operations would require the use of an emergency water pump and generator, emissions would be negligible and less than South Coast

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<sup>1</sup> <https://www.psehealthyenergy.org/our-work/interactive-tools/california-public-safety-power-shutoff-interactive-map/#frequency>



**5355 East Airport Drive Project**  
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Air Quality Management District (SCAQMD) regional thresholds. Therefore, the Draft EIR adequately estimates the Project’s air quality, greenhouse gas, and health risk impacts and the City’s experts disagree with the commenter. No revisions to the Draft EIR is required.

Emergency Water Pump and Backup Generator Emissions	Emissions (lbs/day)					
	VOC	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Maximum Daily Emissions	0.79	3.25	2.00	0.00	0.11	0.11
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	NO	NO	NO	NO	NO	NO

Source: Urban Crossroads, December 20, 2023.

- A-11 The commenter states the requirements from CEQA Guidelines Section 15064(b) and case laws regarding agencies committing to all feasible mitigation measures to reduce significant environmental impacts. The comment incorrectly states that the Draft EIR fails to disclose, analyze, and mitigate significant environmental effects. This comment does not provide evidence that the Draft EIR does not meet the requirements of CEQA. As described in the following responses, the commenter’s assertion is incorrect. Refer to Response to Comment A-12 to A-20. Thus, no further response is required.
  
- A-12 The commenter states the requirements from CEQA Guidelines Sections 15130(a), 15065(a)(3), and 15355(b) regarding cumulative impacts and the importance of a proper cumulative impacts analysis. This comment does not raise any issues concerning the environmental analysis provided in the Draft EIR and thus no further response is required.
  
- A-13 The commenter first states the requirements from CEQA Guidelines Sections 15130(b) regarding methods for satisfying the cumulative impacts analysis requirement. The commenter then cites part of Section 4.1.2, *Scope Of Cumulative Effects Analysis*, in the Draft EIR and further asserts that the Draft EIR fails to provide a list of cumulative projects and that the Draft EIR’s air quality, greenhouse gas, and noise analyses should be revised to include consideration of cumulative projects. The Draft EIR relies on a summary of projections approach. Text stating that a combined approach was used for the evaluation of transportation, air quality, GHG, and noise impacts has been stricken in the Final EIR. This minor clarification of the approach in Section 4.1.2 of the Draft EIR does not change any of the analysis methodologies or conclusions drawn in the Draft EIR or its supporting technical studies and recirculation of the Draft EIR is not required pursuant to State CEQA Guidelines Section 15088.5.
  
- A-14 The commenter asserts that the Draft EIR fails to adequately analyze the Project’s cumulative air quality emissions, claiming that the South Coast Air Quality Management District (SCAQMD)’s approach is outdated. Commenter is advised that the SCAQMD is the regulatory authority on air quality charged with the responsibility of ensuring the improvement of air quality in the South Coast Air Basin. The SCAQMD’s published approach for the analysis of cumulative air quality effects is reliable and has in fact “worked” to improve air quality as shown in the air quality improvement trend discussion included in Draft EIR Section 4.2.1.E,





“Regional Air Quality Improvement.” Further, the SCAQMD has adopted and is enforcing Rule 2305 (Warehouse Indirect Source Rule) (DEIR p. 4.2-20) that requires all operators of warehouses having 100,000 square feet of indoor floor space or more to implement measures that reduce nitrogen oxides and particulate matter emissions and/or pay a fee to fund programs to improve regional air quality.

The Draft EIR and underlying technical studies were prepared in a manner consistent to the SCAQMD recommendation for determining cumulative impacts. The SCAQMD published a report on how to address cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution*. In this report SCAQMD states (Page D-3):

“...the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The project specific (project increment) significance threshold is  $HI > 1.0$  while the cumulative (facility-wide) is  $HI > 3.0$ . It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.

Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.”

Based on the Draft EIR and underlying technical studies the Project does not result in a cumulatively considerable impact with respect to air quality or greenhouse gas emissions. The City’s experts disagree with the commenter and no revisions to the Draft EIR are required.

- A-15 The commenter further asserts that the SCAQMD’s approach used in the Draft EIR also directly conflicts with the Attorney’s General recent guidance document setting forth best practices for evaluating the environmental impacts of warehouse projects like this one under CEQA. Refer to Response to Comment A-14 above regarding the Project’s methodology in determining cumulative air quality impacts, which follows SCAQMD directives. The City’s experts disagree with the commenter and no further response is required.
- A-16 The commenter asserts that the Draft EIR’s analysis of cumulative health risks is flawed for the same reason as the air quality analysis and that Draft EIR’s approach of using a project-level analysis as a substitute for a cumulative impacts analysis fails to address that the Project would be impacting a community already bearing a high pollution burden. Contrary to the



commenter's assertions, the Project site is primarily surrounded by industrial uses. The residential land use with the greatest potential exposure to Project operational source emissions is located approximately 8,840 feet (1.67 miles) northwest of the Project site on the opposite side of I-15 and I-10. The nearest school is located 11,200 feet (2.12 miles) away from the Project site. The commenter provides no evidence to support its claim that the Project, which is converting an already developed industrial site in an industrial area of the City, to a contemporary industrial use, would in any way have a significant adverse effect to sensitive receptors located more than 1.6 away from the Project site. Refer to Response to Comment A-14 above regarding the Project's methodology in determining cumulative air quality impacts. Thus, the City's experts disagree with the commenter and no further response is required.

A-17 The commenter incorrectly asserts that the Project's operational health risk assessment is flawed because it omits analysis of Transportation Refrigeration Units (TRUs). The TRU emission assumptions used in the Project's Air Quality Impact Analysis (*Technical Appendix B1* to the Draft EIR) are the same assumptions used in the Project's Health Risk Assessment (*Technical Appendix B2* to the Draft EIR) as shown in *Technical Appendix B2* Table 2-4, *DPM Emissions From Project Trucks (2024 Analysis Year)*, under the daily truck emissions column. Therefore, the Draft EIR adequately estimates the Project's operational health risk impacts, which includes the analysis of TRUs and the City's experts disagree with the commenter. No revisions to the Draft EIR are required.

A-18 The commenter states that there is a potential underestimation of emissions due to imprecise assumptions for truck trip lengths and trip rates in emissions analysis and that the analysis understated the travel distance for trucks traveling from the ports to the Project Site and should apply a more conservative trip length of 60 miles for Port-related trips. The commenter fails to provide any evidentiary basis for the arbitrary number of 60 miles it suggests using. In fact, these recommendations are in direct opposition of the SCAQMD's recommended truck travel distance for warehousing projects within its jurisdiction (based on SCAG regional travel demand data).

As noted in the Project's Air Quality Impact Analysis (*Technical Appendix B1* to the Draft EIR), the air quality analysis utilized the average trip length for light-heavy (15.3-miles), medium-heavy (14.2-miles) and heavy-heavy trucks (39.9-miles) which is based on SCAQMD's recommendations outlined in their implementation of the Warehouse Actions and Investments to Reduce Emissions (WAIRE) adopted in 2021. The 30.58- and 28.62-mile trip lengths were derived by weighting the average trip lengths using traffic trip percentages. The commenter's recommended trip lengths are not supported by any substantial evidence provided by the SCAQMD and contradicts published material from SCAQMD that was utilized in the underlying analysis. The City's experts disagree with the commenter. Thus, no additions, revisions, or corrections to the Draft EIR are necessary and no further response is required.

A-19 The commenter asserts that the Draft EIR underestimates lengths of passenger trips generated by the Project. The commenter appears to conflate the VMT per worker metric with the trip lengths that were utilized in the underlying AQ/GHG modeling. The commenter is reminded



that the VMT per worker metric is not a trip length and only represents a portion of the trip length assigned to the worker trips. As such, use of CalEEMod for worker trip lengths is appropriate and the City's experts disagree with the commenter. No additions, revisions, or corrections to the Draft EIR are necessary.

- A-20 The commenter summarizes the Project's significant and unavoidable VMT impacts and asserts that mitigation measure MM 4.10-1 fails to meet CEQA's standard for mitigation. This comment is thoroughly addressed below in Response to Comments A-24 through A-26. As described in the following responses, the commenter's assertion is incorrect. Thus, no further response is required.
- A-21 The commenter provides a conclusionary statement, which does not present any additional information not covered in the previous comments. Thus, no additional response is required.
- A-22 This comment consists of introductory remarks and summarize the findings of the commenter stating that the Draft EIR acknowledges a significant and unavoidable VMT impact, the commenter's assertion that the proposed VMT mitigation measure is not fully specified or quantified, and the Project's trip generation and GHG emissions could be much higher than assumed. As described in previous and following responses, the commenter's assertions are incorrect. Refer to Response to Comments A-6 to A-28. Thus, no further response is required.
- A-23 This comment provides a general summary of the Project's significant and unavoidable VMT impact as provided in the Draft EIR. This comment does not raise any issues concerning the environmental analysis provided in the Draft EIR and thus no further response is required.
- A-24 The commenter states the City's VMT Resolution, which reiterates Policy M-1.2 under the TOP 2050 to require development to mitigate its traffic impacts and summarizes the Project's VMT impacts and mitigation measure MM 4.10-1. The commenter then asserts that the language used in mitigation measure MM 4.10-1 is ambiguous and questions which measures will be implemented. In response to the commenter's assertions, a supplemental VMT mitigation assessment has been prepared for the Project to evaluate further potential trip reduction measures under the California Air Pollution Control Officers Association (CAPCOA)'s Handbook (*Attachment B to this Final EIR*). As stated under the supplemental VMT mitigation assessment, when considering which transportation measures are applicable from the Handbook, factors such as project type, scale and locational context are each important considerations for determining measure applicability. Based on these factors, measures associated with commute trip reduction (CTR) programs and their related commute trip reduction strategies have been excluded as they are not quantifiable, nor can their implementation be guaranteed and enforced since the Project is proposed to be developed as a speculative building without a known tenant. However, the proposed Project does have the ability to provide design features that would promote non-motorized transportation alternatives such as measure T-10 End-of-Trip Bicycle Facilities. The Project is required to include building elements for bicycle trip end facilities (i.e., parking) for commuters that choose to bicycle as a mode of travel. This will promote an alternative mode choice of commuting for



employees. As calculated, the Project will reduce VMT by 0.1%. As discussed in Section 4.10, *Transportation*, of the Draft EIR, the Project was found to exceed the City's adopted VMT impact threshold by 22.6% under baseline conditions, while the horizon year buildout condition would exceed the impact threshold by 28.5% (refer to Draft EIR pp. 4.10-11 to 4.10-14) Therefore, with the inclusion of feasible VMT reduction measures, the Project is not able to reduce project generated VMT to a level of less than significant.

- A-25 The commenter states that the difference between voluntary and mandatory Commuter Trip Reduction ("CTR") programs listed under the CAPCOA's Handbook and the Project site's existing transit and bicycle facilities setting as stated under the Draft EIR. Refer to Response to Comment A-24 regarding the feasibility of measures under the CAPCOA's Handbook. Thus, no further response is required.
- A-26 The commenter states that the benefits for ridesharing and vanpooling to VMT reductions and that achieving significant VMT mitigation for this Project may be impossible – but mitigation must be fully specified and quantified for the Project to be properly evaluated. Refer to Response to Comment A-24 regarding the feasibility of measures under the CAPCOA's Handbook and the Project's supplemental VMT mitigation assessment (*Attachment B* to this Final EIR) for the quantification of reduction for the potential measures. Thus, no further response is required.
- A-27 The commenter summarizes the trip generation assumptions used in the Draft EIR and provides a graph depicting trip generations rates for different warehouse categories. The commenter then asserts that that the Draft EIR should be revised by applying a significantly higher and more conservative trip generation rate, or requests as a condition of approval that trip generation will not exceed the number assumed in the Draft EIR. Refer to Response to Comment A-6 regarding the applicability of different ITE land use codes to the Project. The most appropriate and reasonable ITE land use codes were applied in the Project's analyses. It would not be necessary or appropriate, nor does the City have the capacity to enforce the counting of vehicles traveling to and from the Project site, nor would any environmental improvements be achieved from such an exercise. Further, the SCAQMD has adopted and is enforcing Rule 2305 (Warehouse Indirect Source Rule) (refer to Draft EIR p. 4.2-20) that will require the warehouse operator to implement measures that reduce nitrogen oxides and particulate matter emissions and/or pay a fee to fund programs to improve regional air quality. Thus, no further response is required.
- A-28 The comment states that there is a potential underestimation of GHG emissions due to underestimation of trip generation and truck trip distance. Refer to Response to Comments A-18 and A-19 regarding the Project's truck trip lengths and passenger trips. The City's experts disagree, and thus, no further response is required.
- A-29 This comment provides the resume of Mr. Marshall. This comment does not raise any issues concerning the environmental analysis provided in the Draft EIR and thus no further response is required.



**COMMENT LETTER B**

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October 4, 2023

Thomas Grahn, Senior Planner  
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Ontario, CA 91764

VIA EMAIL TO:  
TGrahn@ontarioca.gov

**SUBJECT: COMMENTS ON 5355 EAST AIRPORT DRIVE EIR (SCH NO. 2022090006)**

Dear Mr. Grahn,

Thank you for the opportunity to comment on the Environmental Impact Report (EIR) for the proposed 5355 East Airport Drive Project. Please accept and consider these comments on behalf of Golden State Environmental Justice Alliance. Also, Golden State Environmental Justice Alliance formally requests to be added to the public interest list regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project. Send all communications to Golden State Environmental Justice Alliance P.O. Box 79222 Corona, CA 92877.

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**1.0 Summary**

The project proposes to demolish all existing onsite structures to accommodate the construction and operation of a warehouse building with approximately 270,337 square feet (s.f.) of building floor area, including 255,337 s.f. of warehouse area and 15,000 s.f. of mezzanine area on an approximately 13 acre site. For purposes of environmental analysis within the EIR, it is assumed that the building would include approximately 27,034 s.f. of high-cube cold storage uses (10% of the building space) and the remainder of the building area would be used for dry, non-refrigerated warehousing.

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**1.2 Project Piecemealing**

The EIR does not accurately or adequately describe the project, meaning “the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment” (CEQA § 15378). The proposed project is a piecemealed portion of a larger overall project to be developed within the

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City by the project applicant, Prologis, including at least one other known project identified as PDEV22-010 & PMTT22-008: East State Street Warehouse Project<sup>1</sup> (336,761 square foot warehouse). The MND for PDEV22-010 was published on December 22, 2022. The Notice of Preparation for the proposed project's EIR was published on September 1, 2022. This indicates that the Lead Agency was aware of both projects and processed them simultaneously but separately under CEQA.

CEQA Section 15161 describes project EIRs as examining “the environmental impacts of a specific development project. This type of EIR should focus primarily on the changes in the environment that would result from the development project. The EIR shall examine all phases of the project including planning, construction, and operation.” The specific development project is the construction and operation of all Prologis buildings as a whole, including at minimum PDEV22-010 & PMTT22-008: East State Street Warehouse Project.

Additionally, CEQA Section 15146 requires that the degree of specificity in an EIR “will correspond to the degree of specificity involved in the underlying activity which is described in the EIR. (a) An EIR on a construction project will necessarily be more detailed in the specific effects of the project than will be an EIR on the adoption of a local general plan or comprehensive zoning ordinance because the effects of the construction can be predicted with greater accuracy.” Because there are at least two developments as part of a single construction project, the project EIR must be more detailed in the specific effects of the project.

A project EIR must be prepared that accurately represents the whole of the action without piecemealing the project into separate, smaller development projects to present unduly low environmental impacts. CEQA Section 15161 describes project EIRs as examining “the environmental impacts of a specific development project. This type of EIR should focus primarily on the changes in the environment that would result from the development project. The EIR shall examine all phases of the project including planning, construction, and operation.” The specific development project is the construction and operation of both the proposed project and PDEV22-010. Additionally, CEQA Section 15146 requires that the degree of specificity in an EIR “will correspond to the degree of specificity involved in the underlying activity which is described in the EIR. (a) An EIR on a construction project will necessarily be more detailed in the specific effects of the project than will be an EIR on the adoption of a local general plan or comprehensive zoning ordinance because the effects of the construction can be predicted with greater accuracy.” Because there are two proposed buildings as part of a single construction project, the project EIR must be more detailed in the specific effects of the project. The EIR must be revised to comply

<sup>1</sup> <https://ceqanet.opr.ca.gov/2022120581>

B-3  
(CONT.)

B-4



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with CEQA § 15161 by preparing a Project EIR to adequately and accurately disclose the project-specific and cumulative impacts of all Prologis projects.

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**3.0 Project Description**

The EIR provides misleading information regarding project grading. The EIR states that “Based on the Project’s preliminary grading plan depicted in Figure 3-8, Proposed Grading Plan - West, and Figure 3-9, Proposed Grading Plan – East, the Project’s grading operation *would result in 9,000 more cubic yards of cut than fill*, but final earthwork quantities are subject to final civil engineering design and after final engineering, *the earthwork is expected to balance with no import or export of earth material required.*” The EIR has provided evidence that 9,000 cy of export is required and simultaneously provides an unsupported claim that the earthwork will balance onsite, pending calculations to be provided after the CEQA public review process. There is no method for the public to verify the claim that the earthwork will balance onsite. Verification of the import/export materials is vital as it directly informs the quantity of necessary truck hauling trips due to soil import/export during the grading phase of construction. A revised EIR must be prepared to remove the misleading statement that earthwork will balance onsite due to Figure 3-8 and Figure 3-9 depicting 9,000 cy of exported material is required to construct the proposed project and ensure that all portions of environmental analysis utilize the fact that 9,000 cy of export is required.

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**4.2 Air Quality, 4.4 Energy, and 4.6 Greenhouse Gas Emissions**

Please refer to attachments from SWAPE for a complete technical commentary and analysis.

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The EIR does not include meaningful analysis of relevant environmental justice issues in reviewing potential impacts, including cumulative impacts from the proposed project. This is especially significant as the surrounding community is highly burdened by pollution. According to CalEnviroScreen 4.0<sup>2</sup>, CalEPA’s screening tool that ranks each census tract in the state for pollution and socioeconomic vulnerability, the proposed project’s census tract (6071012700) is highly burdened by pollution. The EIR includes a summary of Calenviroscreen rankings and states that the proposed project is a Disadvantaged Community, but does not utilize this information meaningfully in its analysis. The surrounding community bears the impact of multiple sources of pollution and is more polluted than other census tracts in many pollution indicators measured by CalEnviroScreen. For example, the project census tract ranks in the 91st percentile for ozone burden, 96th percentile for particulate matter (PM) 2.5 burden, 97th percentile for diesel PM burden, and 89th percentile for traffic burdens. All of these environmental factors are attributed

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<sup>2</sup> CalEnviroScreen 4.0 <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40>



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to heavy truck activity in the area. Ozone can cause lung irritation, inflammation, and worsening of existing chronic health conditions, even at low levels of exposure<sup>3</sup>. Exhaust fumes contain toxic chemicals that can damage DNA, cause cancer, make breathing difficult, and cause low weight and premature births<sup>4</sup>. The very small particles of diesel PM can reach deep into the lung, where they can contribute to a range of health problems. These include irritation to the eyes, throat and nose, heart and lung disease, and lung cancer<sup>5</sup>.

The census tract also ranks in the 70th percentile for solid waste facility impacts and 79th percentile for hazardous waste facility impacts. Solid waste facilities can expose people to hazardous chemicals, release toxic gases into the air (even after these facilities are closed), and chemicals can leach into soil around the facility and pose a health risk to nearby populations<sup>6</sup>. Hazardous waste generators and facilities contribute to the contamination of air, water and soil near waste generators and facilities can harm the environment as well as people<sup>7</sup>.

The census tract ranks in the 93rd percentile for contaminated drinking water. Poor communities are exposed to contaminants in their drinking water more often than people in other parts of the state<sup>8</sup>. The census tract ranks in the 79th percentile for toxic releases. People living near facilities that emit toxic releases may breathe contaminated air regularly or if contaminants are released during an accident<sup>9</sup>.

Further, the census tract is a diverse community including 60% Hispanic, 5% African-American, and 6% Asian-American residents, whom are especially vulnerable to the impacts of pollution. The community has a high rate of low educational attainment, meaning 40% of the census tract over age 25 has not attained a high school diploma, which is an indication that they may lack health insurance or access to medical care. Medical care is vital for this census tract as it ranks in the 67th percentile for incidence of cardiovascular disease and 47th percentile for incidence of asthma.

B-7  
(CONT.)

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<sup>3</sup> OEHA Ozone <https://oehha.ca.gov/calenviroscreen/indicator/air-quality-ozone>

<sup>4</sup> OEHA Traffic <https://oehha.ca.gov/calenviroscreen/indicator/traffic-density>

<sup>5</sup> OEHA Diesel Particulate Matter <https://oehha.ca.gov/calenviroscreen/indicator/diesel-particulate-matter>

<sup>6</sup> OEHA Solid Waste Facilities <https://oehha.ca.gov/calenviroscreen/indicator/solid-waste-sites-and-facilities>

<sup>7</sup> OEHA Hazardous Waste Generators and Facilities <https://oehha.ca.gov/calenviroscreen/indicator/hazardous-waste-generators-and-facilities>

<sup>8</sup> OEHA Contaminated Drinking Water <https://oehha.ca.gov/calenviroscreen/drinking-water>

<sup>9</sup> OEHA Toxic Releases <https://oehha.ca.gov/calenviroscreen/indicator/toxic-releases-facilities>





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Additionally, the project's census tract (6071012700) and the census tracts adjacent to the project site (6071002204 (east), 6071002207 (north), 6065040607 (south), and 6071001600 (west)) are identified as SB 535 Disadvantaged Communities<sup>10</sup>, which is not meaningfully discussed or presented for analysis in the EIR. This indicates that cumulative impacts of development and environmental impacts in the City and surrounding area are disproportionately impacting these communities. The EIR provides a brief statement that the project site is located in a Disadvantaged Community. However, it does not utilize this information in its analysis. The negative environmental, health, and quality of life impacts of industrial development in the City have become distinctly inequitable. The severity of environmental impacts particularly on these Disadvantaged Communities must be included for analysis as part of a revised EIR.

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(CONT.)

California's Building Energy Code Compliance Software (CBECC) is the State's only approved energy compliance modeling software for non-residential buildings in compliance with Title 24<sup>11</sup>. CalEEMod is not listed as an approved software. The CalEEMod modeling does not comply with the 2022 Building Energy Efficiency Standards and under-reports the project's significant Energy impacts and fuel consumption to the public and decision makers. Since the EIR did not accurately or adequately model the energy impacts in compliance with Title 24, a finding of significance must be made. A revised EIR with modeling using the approved software (CBECC) must be circulated for public review in order to adequately analyze the project's significant environmental impacts. This is vital as the EIR utilizes CalEEMod as a source in its methodology and analysis, which is clearly not the approved software.

B-8

#### **4.10 Transportation**

Table 5: Trip Generation Comparison within Appendix K: Trip Generation Assessment provides trip generation reduction credits for existing uses. Notably, the Trip Counts were taken on March 1, 2, and 3, 2022, six months prior to the issuance of the NOP for the EIR on September 1, 2022. Utilizing trip counts prior to the date established and utilized for the Environmental Setting does not provide the most accurate picture practically possible of the project's impacts pursuant to CEQA Section 15125. Prologis acquired the project site in approximately 2016. Knowing that redevelopment was imminent, the project applicant requested vehicle trip counts be recorded at the project site very early on in the process (March 2022) in order to create artificially inflated trip reduction credits that do not match the Environmental Setting. By April 2023, tenant Verhoeven

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<sup>10</sup> OEHHA SB 535 Census Tracts <https://oehha.ca.gov/calenviroscreen/sb535>

<sup>11</sup> California Energy Commission 2022 Energy Code Compliance Software <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency-1>



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Grain filed with the Secretary of State that their principal business address had moved to Hanford, CA<sup>12</sup>. Notably this filing aligned with the company’s required annual reporting date and it is highly likely that the date of the company closing operations at the proposed project site aligns with September 2022, rendering the Environmental Setting within the EIR inaccurate. The existing conditions of the site in September 2022 likely generated significantly lower VMT and significantly lower vehicle trips due to the existing site conditions.

Utilizing traffic counts that pre-date the physical conditions at the site in September 2022 serves to artificially reduce the project’s significant environmental impacts by observing the businesses onsite as fully operational. The EIR has not provided meaningful evidence, such as business license records to demonstrate that the buildings onsite were occupied and operational at that time. The EIR must be revised to clarify the Environmental Setting and remove trip reduction credits given for traffic counts that pre-date the physical conditions at the site in September 2022.

The EIR has not adequately analyzed the project’s potential to substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses; or the project’s potential to result in inadequate emergency access. There are no exhibits adequately depicting the onsite turning radius available for trucks maneuvering throughout the site. Notably, the truck/trailer parking stalls and an outdoor storage area are adjacent to the south of truck/trailer loading docks on the building. These parking stalls and outdoor storage area may be in use at any time and further restrict truck/trailer movement on the site. The EIR also states that, “The City of Ontario Engineering Department reviewed the Project’s application materials and determined that no hazardous transportation design features would be introduced within the City public right-of-way through implementation of the Project.” However, the City’s determination/review of the project is not included for public review. This does not comply with CEQA’s requirements for adequate informational documents and meaningful disclosure (CEQA § 15121 and 21003(b)). Incorporation by reference (CEQA § 15150 (f)) is not appropriate as the City’s determination/review of the project contribute directly to analysis of the problem at hand. A revised EIR must be prepared to include the City’s determination/review of the project for review, analysis, and comment by the public and decision makers.

The EIR also states that, “at the time of final grading, landscape, and street improvement plans, the City will review project access points to ensure adequate sight distance,” which is deferred mitigation to after the CEQA public review process. Deferring this environmental analysis required by CEQA to the construction permitting phase is improper mitigation, deferred

B-9  
(CONT.)

B-10

B-11

<sup>12</sup> Verhoeven Grain Statement of Information April 2023  
<https://bizfileonline.sos.ca.gov/api/report/GetImageByNum/181123177111106114109212172063229254105192147110>



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mitigation, and does not comply with CEQA’s requirement for meaningful disclosure and adequate informational documents. A revised EIR must be prepared to include a finding of significance due to these significant and unavoidable impacts.

B-11  
(CONT.)

Table 4.10-4: SCAG’s Connect SoCal Goal Consistency Analysis provides a misleading and erroneous consistency analysis with SCAG’s 2020-2045 Connect SoCal RTP/SCS. Due to errors in modeling, modeling without supporting evidence (as noted throughout this comment letter and attachments), and the EIR’s conclusion the project will result in significant and unavoidable impacts to Transportation (VMT), the proposed project is directly inconsistent with Goal 5 to reduce greenhouse gas emissions and improve air quality, Goal 6 to support healthy and equitable communities, and Goal 7 to adapt to a changing climate. The EIR must be revised to include a finding of significance due to these direct inconsistencies with SCAG’s 2020-2045 Connect SoCal RTP/SCS.

B-12

**5.2 Significant Irreversible Environmental Changes Which Would Be Caused By The Project Should It Be Implemented and 5.3 Growth Inducing Impacts**

The EIR relies upon erroneous Energy modeling to determine that the project will meet sustainability requirements. As noted above, the EIR did not model the project’s energy consumption in compliance with Title 24 modeling software. Further, the EIR states here that “the Project is required by law to comply with the California Building Standards Code which would minimize the Project’s demand for nonrenewable resources,” which is not relevant to the proposed project and its own contribution to significant irreversible environmental changes. The EIR must be revised to include a finding of significance due to an inaccurate and erroneous analysis regarding the project’s Air Quality, Greenhouse Gas, and Energy impacts.

B-13

The EIR does not discuss the project’s significant and unavoidable Transportation (VMT) impacts and thus the project’s inability to comply with SB 743, which was adopted with legislative intent of SB 743 to reduce greenhouse gas emissions by reducing VMT. The EIR must be revised to include a finding of significance due to the project’s significant and unavoidable Transportation (VMT) impacts and direct contribution to climate change.

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The EIR utilizes uncertain and misleading language to support its conclusion that the project will not have growth inducing impacts. The EIR states that “it is *anticipated* that most of the Project’s future employees would already be living in the City of Ontario *or the larger Inland Empire area*, the Project’s introduction of employment opportunities on the Project Site would not induce substantial growth in the area.” The proposed project will rely on the entire labor force within the

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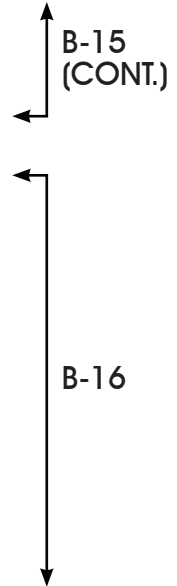


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Inland Empire region to fill the project’s construction and operational jobs will increase VMT and emissions during all phases of construction and operations and a revised EIR must be prepared to account for longer worker trip distances.

The EIR has not provided an adequate or accurate cumulative analysis discussion here to demonstrate the impact of the proposed project in a cumulative setting. For example, the proposed project’s 270,337 square feet and piecemealed project PDEV22-010 (336,761 square feet) totals 607,098 square feet, representing 0.33% of the General Plan buildout for this land use designation, which is significant to be attributed to only two recent projects. Further, other recent industrial projects such as PDEV21-003<sup>13</sup> (23,100 square foot industrial building), PDEV21-007<sup>14</sup> (808,639 sf of industrial buildings), PDEV21-010<sup>15</sup> (1,438,926 sf industrial building), PDEV21-016<sup>16</sup> (38,445 sf industrial building), PDEV21-018<sup>17</sup> (168,772 sf of industrial buildings), PDEV21-020<sup>18</sup> (50,121 sf industrial building), PDEV21-024<sup>19</sup> (198,496 sf industrial building), PDEV21-026<sup>20</sup> (45,000 sf industrial building), PDEV21-028<sup>21</sup> (32,425 sf industrial building), PDEV21-029<sup>22</sup> (15,132 sf industrial building), PDEV21-030<sup>23</sup> (175,047 sf industrial building), PDEV21-031<sup>24</sup> (38,155 sf industrial building), PDEV21-034<sup>25</sup> (32,000 sf industrial building), PDEV21-035<sup>26</sup>



<sup>13</sup> Ontario Monthly Application Activity February 2021 <https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/Monthly-Activity-Reports/2021/02-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>  
<sup>14</sup> Ibid.  
<sup>15</sup> Ontario Monthly Application Activity March 2021 <https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/Monthly-Activity-Reports/2021/03-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>  
<sup>16</sup> Ontario Monthly Application Activity April 2021 <https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/04-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>  
<sup>17</sup> Ontario Monthly Application Activity May 2021 <https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/05-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>  
<sup>18</sup> Ontario Monthly Application Activity June 2021 <https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/06-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>  
<sup>19</sup> Ontario Monthly Application Activity July 2021 <https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/07-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>  
<sup>20</sup> Ibid.  
<sup>21</sup> Ibid.  
<sup>22</sup> Ontario Monthly Application Activity August 2021 <https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/08-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>  
<sup>23</sup> Ontario Monthly Application Activity September 2021 <https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/09-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>  
<sup>24</sup> Ibid.  
<sup>25</sup> Ibid.  
<sup>26</sup> Ontario Monthly Application Activity October 2021 <https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/10-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>



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(60,455 sf industrial building), PDEV21-040<sup>27</sup> (1,255,320 sf industrial building), PDEV21-047<sup>28</sup> (4,281,128 sf industrial building), PDEV21-037<sup>29</sup> (167,600 sf industrial building), PDEV22-010 & PMTT22-008: East State Street Warehouse Project<sup>30</sup> (336,761 square foot warehouse), and South Ontario Logistics Center Specific Plan<sup>31</sup> (5,333,518 sf industrial space) combined with the proposed project will cumulatively generate 14,769,377 sf of industrial space, which is approximately 8% of General Plan buildout. The EIR has not demonstrated that the proposed project is within the General Plan buildout scenario, including all cumulative development constructed, approved projects not yet constructed, and “projects in the pipeline.” A revised EIR must be prepared to include this analysis in order to provide an adequate and accurate environmental analysis.

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(CONT.)

**5.4 Effects Found Not To Be Significant During The EIR Scoping Process**  
**5.4.3 Land Use and Planning**

The EIR does not provide a consistency analysis with all land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. The project has significant potential to conflict with many of these items, including but not limited to the following from the General Plan:

1. Policy ER4-1 Land Use. We reduce GHG and other local pollutant emissions through compact, mixed use, and transit-oriented development and development that improves the regional jobs-housing balance.
2. Policy ER4-6 Particulate Matter. We support efforts to reduce particulate matter to meet State and Federal Clean Air Standards.
3. Policy CE2-4 Protection of Investment. We require that new development and redevelopment protect existing investment by providing architecture and urban design of equal or greater quality.

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<sup>27</sup> Ontario Monthly Application Activity November 2021  
<https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/11-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>

<sup>28</sup> Ontario Monthly Application Activity December 2021  
<https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/12-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>

<sup>29</sup> PDEV21-037 <https://ceqanet.opr.ca.gov/2022110019>

<sup>30</sup> <https://ceqanet.opr.ca.gov/2022120581>

<sup>31</sup> <https://ceqanet.opr.ca.gov/Project/2021010318>



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4. Policy CE3-1 Fiscal Impact Disclosure. We require requests for City Council action to disclose the full fiscal impacts, including direct and indirect costs.
5. Policy M1-1. Roadways maintain a peak hour Level of Service (LOS) E or better at all intersections.
6. Policy M1-5 Level of Service. Maintain a peak hour Level of Service (LOS) E or better at all intersections. Maintain Level of Service D or better on arterial streets in the City.
7. Policy CD-2.8 Safe Design. We incorporate defensible space design into new and existing developments to ensure the maximum safe travel and visibility on pathways, corridors, and open space and at building entrances and parking areas by avoiding physically and visually isolated spaces, maintaining visibility and accessibility, and using lighting.
8. Policy CD-2.10 Parking Areas. We require all development, including single-family residential, to minimize the visual impact of surface, structured, and garage parking areas visible from the public realm in an aesthetically pleasing, safe and environmentally sensitive manner.
9. Goal CE-1. A complete community that provides for all incomes and stages of life.
10. Policy CE-1.2 Jobs and Workforce Skills. We use our economic development resources to: 1. attract jobs suited for the skills and education of current and future City residents.
11. Policy CE-2.1 Development Projects. We require new development and redevelopment to create unique, high-quality places that add value to the community.
12. Policy CE-2.2 Development Review. We require those proposing new development and redevelopment to demonstrate how their projects will create appropriately unique, functional, and sustainable places that will compete well with their competition within the region.
13. Policy CE-2.4 Protection of Investment. We require that new development and redevelopment protect existing investment by providing architecture and urban design of equal or greater quality.
14. Policy M-1.6 Reduce Vehicle Miles Traveled. We will strive to reduce VMT through a combination of land use, transportation projects, travel demand management strategies, and other trip reduction measures in coordination with development projects and public capital improvement projects.



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Several project components, including the outdoor storage area fronting Airport Drive in Figure 3-4: Proposed Site Plan and the EIR’s determination that the project will result in significant and unavoidable Transportation (VMT) impacts are directly inconsistent with goals and policies listed above and a finding of significance must be made in a revised EIR.

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B-17  
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The EIR has not provided any information or analysis on the buildout conditions of the General Plan. Table LU-03 Future Buildout Table of the General Plan<sup>32</sup> states that the Industrial land use designation will have a buildout of 183,596,786 total square feet. The proposed project’s 270,337 square feet and piecemealed project PDEV22-010 (336,761 square feet) totals 607,098 square feet, representing 0.33% of the General Plan buildout for this land use designation, which is significant to be attributed to only two recent projects. Further, other recent industrial projects such as PDEV21-003<sup>33</sup> (23,100 square foot industrial building), PDEV21-007<sup>34</sup> (808,639 sf of industrial buildings), PDEV21-010<sup>35</sup> (1,438,926 sf industrial building), PDEV21-016<sup>36</sup> (38,445 sf industrial building), PDEV21-018<sup>37</sup> (168,772 sf of industrial buildings), PDEV21-020<sup>38</sup> (50,121 sf industrial building), PDEV21-024<sup>39</sup> (198,496 sf industrial building), PDEV21-026<sup>40</sup> (45,000 sf industrial building), PDEV21-028<sup>41</sup> (32,425 sf industrial building), PDEV21-029<sup>42</sup> (15,132 sf industrial

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<sup>32</sup> Table LU-03 [https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/The%20Ontario%20Plann/Land%20Use/Figure%20LU-03%20Future%20Buildout%20Table\\_5.pdf](https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/The%20Ontario%20Plann/Land%20Use/Figure%20LU-03%20Future%20Buildout%20Table_5.pdf)

<sup>33</sup> Ontario Monthly Application Activity February 2021 <https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/Monthly-Activity-Reports/2021/02-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>

<sup>34</sup> Ibid.

<sup>35</sup> Ontario Monthly Application Activity March 2021 <https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/Monthly-Activity-Reports/2021/03-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>

<sup>36</sup> Ontario Monthly Application Activity April 2021 <https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/04-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>

<sup>37</sup> Ontario Monthly Application Activity May 2021 <https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/05-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>

<sup>38</sup> Ontario Monthly Application Activity June 2021 <https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/06-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>

<sup>39</sup> Ontario Monthly Application Activity July 2021 <https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/07-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>

<sup>40</sup> Ibid.

<sup>41</sup> Ibid.

<sup>42</sup> Ontario Monthly Application Activity August 2021 <https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/08-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>



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building), PDEV21-030<sup>43</sup> (175,047 sf industrial building), PDEV21-031<sup>44</sup> (38,155 sf industrial building), PDEV21-034<sup>45</sup> (32,000 sf industrial building), PDEV21-035<sup>46</sup> (60,455 sf industrial building), PDEV21-040<sup>47</sup> (1,255,320 sf industrial building), PDEV21-047<sup>48</sup> (4,281,128 sf industrial building), PDEV21-037<sup>49</sup> (167,600 sf industrial building), PDEV22-010 & PMTT22-008: East State Street Warehouse Project<sup>50</sup> (336,761 square foot warehouse), and South Ontario Logistics Center Specific Plan<sup>51</sup> (5,333,518 sf industrial space) combined with the proposed project will cumulatively generate 14,769,377 sf of industrial space, which is approximately 8% of General Plan buildout. The EIR has not demonstrated that the proposed project is within the General Plan buildout scenario, including all cumulative development constructed, approved projects not yet constructed, and “projects in the pipeline.” A revised EIR must be prepared to include this analysis in order to provide an adequate and accurate environmental analysis.

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**5.4.5 Population and Housing**

The EIR utilizes uncertain and misleading language which does not provide any meaningful analysis of the project’s impacts to population and employment generation. The EIR relies upon the 3,200 unemployed persons within Ontario to fill all of its jobs without providing any discussion of the City’s unemployed population in terms of qualification for and/or interest in work in the industrial sector. A construction worker employment analysis must also be included to adequately and accurately analyze all potentially significant environmental impacts. In order to comply with CEQA’s requirements for meaningful disclosure, a revised EIR must be prepared to provide an accurate estimate of employees generated by all uses of the proposed project. It must also provide demographic and geographic information on the location of qualified workers to fill these positions.

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<sup>43</sup> Ontario Monthly Application Activity September 2021  
<https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/09-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>

<sup>44</sup> Ibid.

<sup>45</sup> Ibid.

<sup>46</sup> Ontario Monthly Application Activity October 2021  
<https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/10-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>

<sup>47</sup> Ontario Monthly Application Activity November 2021  
<https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/11-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>

<sup>48</sup> Ontario Monthly Application Activity December 2021  
<https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/12-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>

<sup>49</sup> PDEV21-037 <https://ceqanet.opr.ca.gov/2022110019>

<sup>50</sup> <https://ceqanet.opr.ca.gov/2022120581>

<sup>51</sup> <https://ceqanet.opr.ca.gov/Project/2021010318>





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SCAG's 2020-2045 RTP/SCS Connect SoCal Demographics and Growth Forecast<sup>52</sup> notes that Ontario will add 55,400 jobs between 2016 - 2045. The EIR utilizes uncertain and misleading language in stating generally that SCAG anticipates Ontario to employ approximately 169,300 people by 2045, and "therefore the project generated jobs are well within the employment projections for the City." The EIR does not provide any cumulative analysis discussion of projects approved since 2016 and projects "in the pipeline" to determine if the project will exceed the employment/population growth forecasts by SCAG and/or the General Plan. For example, other recent industrial projects such as PDEV21-003<sup>53</sup> (23,100 square foot industrial building), PDEV21-007<sup>54</sup> (808,639 sf of industrial buildings), PDEV21-010<sup>55</sup> (1,438,926 sf industrial building), PDEV21-016<sup>56</sup> (38,445 sf industrial building), PDEV21-018<sup>57</sup> (168,772 sf of industrial buildings), PDEV21-020<sup>58</sup> (50,121 sf industrial building), PDEV21-024<sup>59</sup> (198,496 sf industrial building), PDEV21-026<sup>60</sup> (45,000 sf industrial building), PDEV21-028<sup>61</sup> (32,425 sf industrial building), PDEV21-029<sup>62</sup> (15,132 sf industrial building), PDEV21-030<sup>63</sup> (175,047 sf industrial building), PDEV21-031<sup>64</sup> (38,155 sf industrial building), PDEV21-034<sup>65</sup> (32,000 sf industrial

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<sup>52</sup> SCAG Connect SoCal Demographics and Growth Forecast adopted September 3, 2020  
[https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial\\_demographics-and-growth-forecast.pdf?1606001579](https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial_demographics-and-growth-forecast.pdf?1606001579)

<sup>53</sup> Ontario Monthly Application Activity February 2021  
<https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/Monthly-Activity-Reports/2021/02-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>

<sup>54</sup> Ibid.

<sup>55</sup> Ontario Monthly Application Activity March 2021  
<https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/Monthly-Activity-Reports/2021/03-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>

<sup>56</sup> Ontario Monthly Application Activity April 2021 <https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/04-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>

<sup>57</sup> Ontario Monthly Application Activity May 2021 <https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/05-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>

<sup>58</sup> Ontario Monthly Application Activity June 2021 <https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/06-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>

<sup>59</sup> Ontario Monthly Application Activity July 2021 <https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/07-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>

<sup>60</sup> Ibid.

<sup>61</sup> Ibid.

<sup>62</sup> Ontario Monthly Application Activity August 2021  
<https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/08-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>

<sup>63</sup> Ontario Monthly Application Activity September 2021  
<https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/09-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>

<sup>64</sup> Ibid.

<sup>65</sup> Ibid.



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building), PDEV21-035<sup>66</sup> (60,455 sf industrial building), PDEV21-040<sup>67</sup> (1,255,320 sf industrial building), PDEV21-047<sup>68</sup> (4,281,128 sf industrial building), PDEV21-037<sup>69</sup> (167,600 sf industrial building), PDEV22-010 & PMTT22-008: East State Street Warehouse Project<sup>70</sup> (336,761 square foot warehouse), and South Ontario Logistics Center Specific Plan<sup>71</sup> (5,333,518 sf industrial space) combined with the proposed project will cumulatively generate 14,769,377 sf of industrial space. This is approximately 12,360 employees, which is 22.3% of the City’s employment growth forecast over 29 years. This total increases exponentially when other industrial and commercial development activity is added to the calculation. A revised EIR must be prepared to include this information for analysis, and also provide a cumulative analysis discussion of projects approved since 2016 and projects “in the pipeline” to determine if the proposed project will exceed the employment/population growth forecasts by SCAG and/or the General Plan.

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(CONT.)

**6.0 Alternatives**

The EIR is required to evaluate a reasonable range of alternatives to the proposed project which will avoid or substantially lessen any of the significant effects of the project (CEQA § 15126.6.) The alternatives chosen for analysis include the CEQA required “No Project” alternative and only two others - Reduced Building Area and Reduced Intensity. The EIR does not evaluate a reasonable range of alternatives as only two alternatives beyond the required No Project alternative is analyzed. The EIR must be revised to include analysis of a reasonable range of alternatives and foster informed decision making (CEQA § 15126.6). This could include alternatives such as development of the site with a mixed-use project that provides affordable housing and local-serving commercial uses that may reduce VMT, GHG emissions, and improve Air Quality.

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**Conclusion**

For the foregoing reasons, GSEJA believes the EIR is flawed and a revised EIR must be prepared for the proposed project and circulated for public review. Golden State Environmental Justice Alliance requests to be added to the public interest list regarding any subsequent environmental

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<sup>66</sup> Ontario Monthly Application Activity October 2021  
<https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/10-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>

<sup>67</sup> Ontario Monthly Application Activity November 2021  
<https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/11-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>

<sup>68</sup> Ontario Monthly Application Activity December 2021  
<https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/12-2021%20Monthly%20Activity%20Report%20-%20New%20Apps.pdf>

<sup>69</sup> PDEV21-037 <https://ceqanet.opr.ca.gov/2022110019>

<sup>70</sup> <https://ceqanet.opr.ca.gov/2022120581>

<sup>71</sup> <https://ceqanet.opr.ca.gov/Project/2021010318>



**5355 East Airport Drive Project  
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Thomas Grahn  
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documents, public notices, public hearings, and notices of determination for this project. Send all communications to Golden State Environmental Justice Alliance P.O. Box 79222 Corona, CA 92877.

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Sincerely,

Gary Ho  
Blum, Collins & Ho LLP

Attachment: SWAPE Analysis



# 5355 East Airport Drive Project Final Environmental Impact Report



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September 29, 2023

Gary Ho  
Blum, Collins & Ho LLP  
707 Wilshire Blvd, Ste. 4880  
Los Angeles, CA 90017

**Subject: Comments on the 5355 East Airport Drive Project (SCH No. 2022090006)**

Dear Mr. Ho,

We have reviewed the August 2023 Draft Environmental Impact Report (“DEIR”) for the 5355 East Airport Drive Project (“Project”) located in the City of Ontario (“City”). The Project proposes to construct a 270,337-square-foot (“SF”) warehouse building including 27,034-SF of refrigerated space and 291 parking spaces on the 8.15-acre site.

Our review concludes that the DEIR fails to adequately evaluate the hazards, hazardous materials, air quality, health risk, and greenhouse gas impacts. As a result, emissions and health risk impacts associated with construction and operation of the proposed Project may be underestimated and inadequately addressed. A revised EIR should be prepared to adequately assess and mitigate the potential hazards, hazardous materials, air quality, health risk, and greenhouse gas impacts that the project may have on the environment.

### **Hazards and Hazardous Materials** **Inadequate Disclosure and Analysis of Impacts**

The DEIR states with respect to the Hazards and Hazardous Materials section:

“This information and analysis presented in this Subsection is based in part on the technical study titled Phase I/Phase II Environmental Site Assessment Report (Phase I/II ESA), dated March 31, 2022, that was prepared by Farallon Consulting, L.L.C. (referenced herein as “Farallon”) to determine the presence or absence of hazardous materials on the Project Site under existing conditions. The report is provided as *Technical Appendix G* to this EIR,” (p. 4.7-1).

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The Hazards and Hazardous Materials section documents tetrachloroethylene (PCE) soil vapor contamination in the vicinity of Building B at concentrations exceeding screening levels. Specifically, the DEIR concludes:

“Therefore, PCE impacts potentially associated with the use and storage of hazardous materials at Building B could contribute to vapor intrusion conditions on the Project Site and impacts would be potentially significant,” (p. 4.7-14).

The DEIR provides the following mitigation measure:

“MM 4.7-1 Prior to the issuance of a grading permit, the Project Applicant shall prepare a Soil Management Plan (SMP). The SMP shall include explicit instructions for the appropriate handling, storage, and disposal of any known or potentially impacted soil during soil moving activities. The general contractor will be required to follow the requirements of the SMP and stop work to make notification to the environmental team if any potential impacts are observed at any time the environmental team is not already on-site,” (p. 4.7-19).

With regard to PCE contamination, MM 4.7-1 states:

“Soil Monitoring: Soils impacted by PCE that are encountered during site redevelopment will be characterized and documented. The monitoring and sampling activities to be performed include:

- Visual observation performed to detect areas of soil that may be impacted by PCE or other non-VOC hazardous materials, if encountered.
- Screening for PCEs using field instruments to document new or previously undetected sources of PCEs.
- Soil sampling and chemical testing performed to evaluate concentrations of PCE,” (p. 4.7-20).

Provisions in MM 4.7-1 fail to include the following recommendation in the Phase I/Phase II ESA:

“Additionally, because PCE has been documented in soil vapor in the vicinity of Building B at concentrations exceeding calculated screening levels, and PCE was detected at concentrations in shallow soil vapor less than the calculated RSLs in other soil gas samples collected at the Site, the potential for vapor intrusion issues into the planned new Site building should be addressed. Additional investigation and characterization are recommended to delineate and design mitigation measures for PCE in soil vapor that may impact indoor air in the future building,” (Appendix G, p. 11-3).

The DEIR fails to include results of any additional sampling to delineate and design mitigation measures for PCE in the indoor air of the future building as recommended in the Phase I/II. These design measures typically include soil vapor extraction, vapor barriers, and air filtration systems. A revised DEIR should be prepared to include mitigation that documents results of the recommended additional investigation and provides measures to address potential PCE vapor intrusion in indoor air as recommend in the Phase I/II.

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**Air Quality**

**Failure to Provide Complete CalEEMod Output Files**

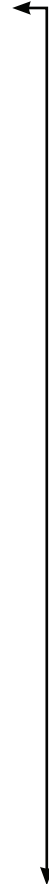
Land use development projects under the California Environmental Quality Act (“CEQA”) typically evaluate air quality impacts and calculate potential criteria air pollutant emissions using the California Emissions Estimator Model (“CalEEMod”).<sup>1</sup> CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but CEQA requires that such changes be justified by substantial evidence. Once all of the values are inputted into the model, the Project’s construction and operational emissions are calculated, and “output files” are generated. These output files disclose to the reader what parameters are utilized in calculating the Project’s air pollutant emissions and make known which default values are changed as well as provide justification for the values selected.

According to the DEIR, CalEEMod Version 2022.1 is relied upon to estimate Project emissions (p. 4.2-20). However, this poses a problem, as the currently available version of CalEEMod 2022.1 is described as a “soft release” which fails to provide complete output files.<sup>2</sup> Specifically, the “User Changes to Default Data” table no longer provides the quantitative counterparts to the changes to the default values (see excerpt below) (Appendix B1, pp. 242):

**8. User Changes to Default Data**

Screen	Justification
Land Use	Total Project Area is 13.08 acres
Operations: Vehicle Data	Trip rates based on information provided in ITE 11th Edition
Operations: Fleet Mix	Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LD11, LD12, MDV, & MCY)
Operations: Refrigerants	As of 1 January 2022, new commercial refrigeration equipment may not use refrigerants with a GWP of 150 or greater.

However, previous CalEEMod Versions, such as 2020.4.0, include the specific numeric changes to the model’s default values (see example excerpt below):



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<sup>1</sup> “CalEEMod User’s Guide.” California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: <https://www.aqmd.gov/caleemod/user's-guide>.

<sup>2</sup> “CalEEMod California Emissions Estimator Model Soft Release.” California Air Pollution Control Officers Association (CAPCOA), 2022, available at: <https://caleemod.com/>.



Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	167.00
tblConstructionPhase	PhaseEndDate	11/22/2023	8/25/2023
tblConstructionPhase	PhaseEndDate	9/27/2023	6/30/2023
tblConstructionPhase	PhaseEndDate	10/25/2023	7/28/2023
tblConstructionPhase	PhaseStartDate	10/26/2023	7/29/2023
tblConstructionPhase	PhaseStartDate	9/28/2023	7/1/2023
tblLandUse	LandUseSquareFeet	160,000.00	160,371.00
tblLandUse	LandUseSquareFeet	119,000.00	41,155.00
tblLandUse	LotAcreage	3.67	3.68
tblLandUse	LotAcreage	2.73	2.74

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(CONT.)

The output files associated with CalEEMod Version 2022.1 fail to present the exact parameters used to calculate Project emissions. To remedy this issue, the DEIR should have provided access to the model's ".JSON" output files, which allow third parties to review the model's revised input parameters.<sup>3</sup> Without access to the complete output files, including the specific numeric changes to the default values, we cannot verify that the DEIR's air modeling and subsequent analysis is an accurate reflection of the proposed Project. As a result, a revised EIR should be prepared to include an updated air quality analysis that correctly provides the complete output files for CalEEMod Version 2022.1, or includes an updated air model using an older release of CalEEMod.<sup>4</sup>

#### Unsubstantiated Input Parameters Used to Estimate Project Emissions

As previously discussed, the DEIR relies on CalEEMod Version 2022.1 to estimate the Project's air quality emissions and fails to provide the complete output files required to adequately evaluate model's analysis (p. 40). Regardless, when reviewing the Project's CalEEMod output files, provided Air Quality Impact Analysis ("AQ Analysis") as Appendix B1 to the DEIR, we were able to identify several model inputs that are inconsistent with information disclosed in the DEIR. As such, the Project's construction and operational emissions may be underestimated. A revised EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction and operation of the Project will have on local and regional air quality.

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#### Unsubstantiated Changes to Individual Construction Phase Lengths

Review of the CalEEMod output files demonstrates that the "IE Distribution Center #14 (Construction)" model includes changes to the default construction schedule (see excerpt below) (Appendix B1, pp. 206).

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<sup>3</sup> "Video Tutorials for CalEEMod Version 2022.1." California Air Pollution Control Officers Association (CAPCOA), May 2022, available at: <https://www.caleemod.com/tutorials>.

<sup>4</sup> "CalEEMod Version 2020.4.0." California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: <http://www.aqmd.gov/caleemod/download-model>.



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Screen	Justification
Land Use	Total Project Site is 13.08 acres
Construction: Construction Phases	Construction anticipated to end in April 2024
Construction: Off-Road Equipment	Construction equipment based on equipment needed for other industrial projects within the area
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Demolition, Site Preparation, Grading, and Building Construction
Construction: Architectural Coatings	Rule 1113

As a result of these changes, the model includes the following construction schedule (see excerpt below) (Appendix B1, pp. 195):

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase
Demolition	Demolition	5/2/2023	7/24/2023	5.00	60.0
Site Preparation	Site Preparation	7/25/2023	9/4/2023	5.00	30.0
Grading	Grading	7/25/2023	9/4/2023	5.00	30.0
Building Construction	Building Construction	9/5/2023	4/15/2024	5.00	160
Paving	Paving	2/13/2024	4/15/2024	5.00	45.0
Architectural Coating	Architectural Coating	3/5/2024	4/15/2024	5.00	30.0

As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.<sup>5</sup> As demonstrated above in the "User Changes to Default Data" table, the justification provided for these changes is:

"Construction anticipated to end in April 2024" (Appendix B1, pp. 206).

Furthermore, the DEIR provides the following construction schedule (see excerpt below) (p. 3-12, Table 3-1):

**Table 3-1 Estimated Construction Schedule**

Construction Phase	Duration
Demolition	60 days
Site Preparation & Grading	30 days
Building Construction	160 days
Paving	45 days
Architectural Coating & Landscaping	30 days
<b>Total</b>	<b>12 months</b>

However, the changes to the individual construction phase lengths remain unsubstantiated. While the DEIR justifies a total length of Project construction of 12 months, the DEIR fails to provide a source for the individual construction phase lengths outlined in Table 3-1. Until a proper source is provided, the model should have included proportionately altered individual phase lengths to match the proposed construction duration of 12 months.<sup>6</sup>

<sup>5</sup> "CalEEMod User's Guide." California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: <https://www.agcmd.gov/caleemod/user's-guide>, p. 1, 14.

<sup>6</sup> See Attachment A for proportionately altered construction schedule.

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The construction schedule included in the model presents an issue, as the construction emissions are improperly spread out over a longer period of time for some phases, but not for others. According to the CalEEMod User’s Guide, each construction phase is associated with different emissions activities (see excerpt below).<sup>7</sup>

Demolition involves removing buildings or structures.

Site Preparation involves clearing vegetation (grubbing and tree/stump removal) and removing stones and other unwanted material or debris prior to grading.

Grading involves the cut and fill of land to ensure that the proper base and slope is created for the foundation.

Building Construction involves the construction of the foundation, structures and buildings.

Architectural Coating involves the application of coatings to both the interior and exterior of buildings or structures, the painting of parking lot or parking garage striping, associated signage and curbs, and the painting of the walls or other components such as stair railings inside parking structures.

Paving involves the laying of concrete or asphalt such as in parking lots, roads, driveways, or sidewalks.

By disproportionately altering and extending some of the individual construction phase lengths without proper justification, the model assumes there are a greater number of days to complete the construction activities required by the prolonged phases. As a result, there will be less construction activities required per day and, consequently, less pollutants emitted per day. Until we are able to verify the revised construction schedule, the model may underestimate the peak daily emissions associated with some phases of construction and should not be relied upon to determine Project significance.

*Unsubstantiated Changes to Architectural Coating Emission Factors*

Review of the CalEEMod output files demonstrates that the “IE Distribution Center #14 (Construction)” model includes changes to the default architectural coating emission factors (see excerpt below) (Appendix B1, pp. 206).

Screen	Justification
Land Use	Total Project Site is 13.08 acres
Construction: Construction Phases	Construction anticipated to end in April 2024
Construction: Off-Road Equipment	Construction equipment based on equipment needed for other industrial projects within the area
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Demolition, Site Preparation, Grading, and Building Construction
Construction: Architectural Coatings	Rule 1113

As previously mentioned, the CalEEMod User’s Guide requires any changes to model defaults be justified.<sup>8</sup> As demonstrated above in the “User Changes to Default Data” table, the justification provided for these changes is:

<sup>7</sup> “CalEEMod User’s Guide.” California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: <https://www.aqmd.gov/caleemod/user-s-guide>, p. 32.

<sup>8</sup> “CalEEMod User’s Guide.” California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: <https://www.aqmd.gov/caleemod/user-s-guide>, p. 1, 14.

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“Rule 1113” (Appendix B1, pp. 206).

However, the reductions to the architectural coating emission factors remain unsubstantiated for two reasons.

First, we cannot verify the accuracy of the revised architectural coating emission factors based on SCAQMD Rule 1113 alone. The SCAQMD Rule 1113 Table of Standards provides the required volatile organic compound (“VOC”) limits (grams of VOC per liter of coating) for 57 different coating categories.<sup>9</sup> The VOC limits for each coating varies from a minimum value of 50 g/L to a maximum value of 730 g/L. As such, we cannot verify that SCAQMD Rule 1113 substantiates reductions to the default coating values without more information regarding what category of coating will be used. As the DEIR fails to explicitly require the use of a specific type of coating which would adhere to a specific VOC limit, we are unable to verify the model’s revised coating emission factors.

Second, as previously discussed, the output files for CalEEMod 2022.1 do not present the numeric changes to any model defaults. Upon further review of the output files, Table 5.5 contains the only mention of architectural coatings (see excerpt below) (Appendix B1, pp. 198):

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	415,727	138,576	13,629

As demonstrated above, Table 5.5 only provides the *square footage* of area to be coated. Since the output files fail to demonstrate the architectural coating *emission factors* that the model relies on, we cannot verify that the values included in the model are accurate.

These unsubstantiated reductions present an issue, as CalEEMod uses the architectural coating emission factors to calculate the Project’s VOC emissions.<sup>10</sup> By including unsubstantiated reductions to the default architectural coating emission factors, the model may underestimate the Project’s construction-related VOC emissions and should not be relied upon to determine Project significance.

*Unsubstantiated Changes to Fleet Mix Values*

Review of the CalEEMod output files demonstrates that the “IE Distribution Center #14 (Passenger Car Operations)” and “IE Distribution Center #14 (Truck Operations)” models include changes to the default operational vehicle fleet mix percentages (see excerpt below) (Appendix B1, pp. 242, 274).

<sup>9</sup> “SCAQMD Rule 1113 Advisory Notice.” SCAQMD, February 2016, *available at:* <http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/r1113.pdf?sfvrsn=24>, p. 1113-14, Table of Standards 1.

<sup>10</sup> “CalEEMod User’s Guide.” California Air Pollution Control Officers Association (CAPCOA), May 2021, *available at:* <https://www.aqmd.gov/caleemod/user-s-guide>, p. 35, 40.

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Screen	Justification
Land Use	Total Project Area is 13.08 acres
Operations: Vehicle Data	Trip rates based on information provided in ITE 11th Edition
Operations: Fleet Mix	Passenger Car Mix estimated based on the CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, & MCY)
Operations: Refrigerants	As of 1 January 2022, new commercial refrigeration equipment may not use refrigerants with a GWP of 150 or greater.

These changes remain unsubstantiated. As previously discussed, the output files for CalEEMod 2022.1 do not present the numeric changes to any model defaults. Upon further review of the output files, changes to fleet mix percentages are not mentioned outside of the “User Changes to Default Data” table. Until the DEIR verifies the breakdown of heavy-heavy duty (“HHD”), medium-heavy duty (“MHD”), light-heavy duty (“LHD1, LDH2”), trucks used by the Project, we cannot verify that the values included in the model are accurate.<sup>11</sup>

These unsubstantiated changes present an issue, as CalEEMod uses operational vehicle fleet mix percentages to calculate the Project’s operational emissions associated with on-road vehicles.<sup>12</sup> By including several unsubstantiated changes to the default operational vehicle fleet mix percentages, the model may underestimate the Project’s mobile-source operational emissions and should not be relied upon to determine Project significance.

### *Incorrect Application of Tier 4 Interim Mitigation*

Review of the CalEEMod output files demonstrates that the “IE Distribution Center #14 (Construction)” model includes changes to the default off-road equipment engine tiers (see excerpt below) (Appendix B1, pp. 206).

Screen	Justification
Land Use	Total Project Site is 13.08 acres
Construction: Construction Phases	Construction anticipated to end in April 2024
Construction: Off-Road Equipment	Construction equipment based on equipment needed for other industrial projects within the area
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Demolition, Site Preparation, Grading, and Building Construction
Construction: Architectural Coatings	Rule 1113

As a result, the model assumes that the Project’s off-road construction equipment fleet would meet Tier 4 interim emissions standards (see excerpt below) (Appendix B1, pp. 196).

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Excavators	Diesel	Tier 4 Interim	3.00	8.00	36.0	0.36
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Interim	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Interim	3.00	8.00	367	0.40
Grading	Graders	Diesel	Tier 4 Interim	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Interim	2.00	8.00	36.0	0.38
Grading	Scrapers	Diesel	Tier 4 Interim	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40

Note: Screenshot does not include all the applicable changes.

<sup>11</sup> “CalEEMod User’s Guide.” California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: <https://www.aqmd.gov/caleemod/user-s-guide>, p. 38.

<sup>12</sup> “CalEEMod User’s Guide.” California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: <https://www.aqmd.gov/caleemod/user-s-guide>, p. 36.

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As previously mentioned, the CalEEMod User’s Guide requires any changes to model defaults be justified.<sup>13</sup> According to the “User Entered Comments & Non-Default Data” table, the justification provided for these changes is:

“Construction equipment based on equipment needed for other industrial projects within the area” (Appendix B1, pp. 206).

The assumption that the Project’s off-road construction equipment fleet would meet Tier 4 interim emissions standards remains unsupported as the DEIR fails to explicitly require these standards through a formal mitigation measure. This is incorrect, as according to the Association of Environmental Professionals (“AEP”) *CEQA Portal Topic Paper* on mitigation measures:

“While not ‘mitigation’, a good practice is to include those project design feature(s) that address environmental impacts in the mitigation monitoring and reporting program (MMRP). Often the MMRP is all that accompanies building and construction plans through the permit process. If the design features are not listed as important to addressing an environmental impact, it is easy for someone not involved in the original environmental process to approve a change to the project that could eliminate one or more of the design features without understanding the resulting environmental impact” (emphasis added).<sup>14</sup>

As discussed above, measures that are not formally included in the mitigation monitoring and reporting program (“MMRP”) may be eliminated from the Project’s design altogether. As the use of construction equipment with Tier 4 interim emissions standards are not formally included as mitigation measures, we cannot guarantee that these standards would be implemented, monitored, and enforced on the Project site. Consequently, the model’s assumption that the off-road construction equipment fleet would adhere to Tier 4 interim emissions standards is incorrect.

#### Updated Analysis Indicates a Potentially Significant Air Quality Impact

In an effort to more accurately estimate the Project’s construction-related and operational emissions, we used CalEEMod Version 2020.4.0, as well as the Project-specific information provided by the DEIR.<sup>15</sup> Consistent with the DEIR’s models, we included 243,303-SF of “Unrefrigerated Warehouse-No Rail,” 27,000-SF of “Refrigerated Warehouse-No Rail,” 299 spaces of “Parking Lot,” and 161,000-SF of “Other Asphalt Surfaces.” Additionally, we omitted the unsubstantiated changes to the architectural and coating emission factors, Tier 4 Interim mitigation, and operational vehicle fleet mix; we also proportionately altered the individual construction phase lengths to match the 12-month construction schedule.<sup>16</sup>

<sup>13</sup> “CalEEMod User’s Guide Version 2020.4.0.” California Air Pollution Control Officers Association (CAPCOA), May 2021, available at: <https://www.aqmd.gov/caleemod/user-s-guide>, p. 1, 14.

<sup>14</sup> “CEQA Portal Topic Paper Mitigation Measures.” AEP, February 2020, available at: <https://ceqaportal.org/tp/CEQA%20Mitigation%202020.pdf>, p. 6.

<sup>15</sup> “CalEEMod Version 2020.4.0.” California Air Pollution Control Officers Association (CAPCOA), March 2022, available at: <http://www.aqmd.gov/caleemod/download-model>.

<sup>16</sup> See Attachment B for updated air modeling.

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Our updated analysis estimates that the Project’s construction-related VOC emissions would exceed the applicable SCAQMD threshold of 75-pounds per day (“lbs/day”), as referenced by the DEIR (see table below).<sup>17</sup>

SWAPE Criteria Air Pollutant Emissions	
Construction	VOC (lbs/day)
DEIR	47.2
SWAPE	199.0
% Increase	322%
SCAQMD Threshold	<b>75</b>
<i>Exceeds?</i>	<b>Yes</b>

As demonstrated in the table above, the Project’s construction-related VOC emissions, as estimated by SWAPE, increase by approximately 322% and exceed the applicable SCAQMD significance threshold. Our updated model demonstrates that the Project would result in a potentially significant air quality impact that was not previously identified or addressed in the DEIR. A revised EIR should be prepared to adequately assess and mitigate the potential air quality impacts that the Project may have on the surrounding environment.

**Diesel Particulate Matter Emissions Inadequately Evaluated**

The DEIR concludes that the proposed Project would result in a less-than-significant health risk impact based on a quantified construction and operational health risk assessment (“HRA”), as detailed in the Mobile Source Health Risk Assessment (“HRA Report”), provided as Appendix B2 to the DEIR. Specifically, the HRA Report estimates that the cumulative maximum cancer risk posed to nearby, existing residential sensitive receptors associated with construction and operation would be 0.01 in one million, which would not exceed the SCAQMD significance threshold of 10 in one million (p. 4, Table ES-3). The DEIR’s evaluation of the Project’s potential health risk impacts, as well as the subsequent less-than-significant impact conclusion, is incorrect for three reasons.

First, the DEIR’s HRAs are unreliable, as they rely upon emissions estimates from a flawed air model, as discussed above in the section titled “Unsubstantiated Input Parameters Used to Estimate Project Emissions.” As such, the HRAs are based on potentially underestimated DPM concentrations to calculate the health risk associated with Project construction. As a result, the DEIR’s HRAs and resulting cancer risk should not be relied upon to determine Project significance.

<sup>17</sup> “South Coast AQMD Air Quality Significance Thresholds.” SCAQMD, March 2023, available at: <https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=25>.

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Second, the DEIR’s operational HRA underestimates the Fraction of Time At Home (“FAH”) values for the third trimester, infant, and child receptors. Specifically, the HRA Report utilizes an FAH value of 0.85 for the third trimester (age -0.25 to 0) and infant (age 0 to 2) receptors, and an FAH value of 0.72 for the child receptors (age 2 to 16) (see excerpt below) (Appendix B2, Table 2-7, p. 20).

**TABLE 2-7: EXPOSURE ASSUMPTIONS FOR INDIVIDUAL CANCER RISK (30 YEAR RESIDENTIAL)**

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Fraction of Time at Home	Exposure Frequency (days/year)	Exposure Time (hours/day)
-0.25 to 0	361	10	0.25	0.85	350	24
0 to 2	1,090	10	2	0.85	350	24
2 to 16	572	3	14	0.72	350	24
16 to 30	261	1	14	0.73	350	24

The FAH values used for the third trimester, infant, and childhood receptors are incorrect, as SCAQMD guidance clearly states:

“For Tiers 1, 2, and 3 screening purposes, the FAH is assumed to be 1 for ages third trimester to 16. As a default, children are assumed to attend a daycare or school in close proximity to their home and no discount should be taken for time spent outside of the area affected by the facility’s emissions. People older than age 16 are assumed to spend only 73 percent of their time at home.”<sup>18</sup>

Per SCAQMD guidance, the HRA Report should have used an FAH of 1 for the third trimester, infant, and child receptors. By relying on incorrect FAH values, the DEIR underestimates the cancer risk posed to nearby, existing sensitive receptors as a result of Project operation.

Third, further review of the HRA Report demonstrates that the HRAs may fail to include Age Sensitivity Factors (“ASFs”). Regarding ASFs, OEHHA guidance states:

“Studies have shown that young animals are more sensitive than adult animals to exposure to many carcinogens (OEHHA, 2009). Therefore, OEHHA developed age sensitivity factors (ASFs) to take into account the increased sensitivity to carcinogens during early-in-life exposure (Table 8.3). These factors were developed and described in detail in OEHHA (2009). In the absence of chemical-specific data, OEHHA recommends a default ASF of 10 for the third trimester to age 2 years, and an ASF of 3 for ages 2 through 15 years to account for potential increased sensitivity to carcinogens during childhood.”

<sup>18</sup> “Risk Assessment Procedures.” SCAQMD, August 2017, available at: [http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1401/riskassessmentprocedures\\_2017\\_080717.pdf](http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1401/riskassessmentprocedures_2017_080717.pdf), p. 7.

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B-36



However, while the HRA Report includes ASFs in their exposure assumption tables, the equation to produce carcinogenic risk estimates, as shown below, is incorrect and underestimated (p. 21).

$$DOSE_{air} = (C_{air} \times [BR/BW] \times A \times EF) \times (1 \times 10^{-6})$$

Where:

- DOSE<sub>air</sub> = chronic daily intake (mg/kg/day)
- C<sub>air</sub> = concentration of contaminant in air (ug/m<sup>3</sup>)
- [BR/BW] = daily breathing rate normalized to body weight (L/kg BW-day)
- A = inhalation absorption factor
- EF = exposure frequency (days/365 days)
- BW = body weight (kg)
- 1 x 10<sup>-6</sup> = conversion factors (µg to mg, L to m<sup>3</sup>)

$$RISK_{air} = DOSE_{air} \times CPF \times ED/AT$$

Where:

- DOSE<sub>air</sub> = chronic daily intake (mg/kg/day)
- CPF = cancer potency factor
- ED = number of years within particular age group
- AT = averaging time

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(CONT.)

Instead, the HRA Report should have used the following equation that includes ASFs:

$$Cancer\ Risk_{AIR} = Dose_{AIR} \times CPF \times ASF \times FAH \times \frac{ED}{AT}$$

By potentially failing to include ASF values in the carcinogenic risk estimate equation, the DEIR's HRA may underestimate the cancer risk posed to nearby, existing sensitive receptors as a result of Project construction and operation. As such, a revised EIR should be prepared to include an updated analysis correctly accounting for ASF values.

### Greenhouse Gas

#### Failure to Adequately Evaluate Greenhouse Gas Impacts

The DEIR estimates that the Project would generate net annual greenhouse gas ("GHG") emissions of 2,590.77 metric tons of carbon dioxide equivalents per year ("MT CO<sub>2</sub>e/year") (see excerpt below) (Table 4.6-3, p. 4.6-22).

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**Table 4.6-3 Project GHG Emissions**

Emission Source	Emissions (MT/yr)				
	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	Refrigerants	Total CO <sub>2</sub> e
Annual construction-related emissions amortized over 30 years	30.43	6.67E-04	3.33E-04	0.01	30.77
Mobile Source	1,536.00	0.11	0.18	2.15	1,596.00
Area Source	5.48	0.00	0.00	0.00	5.64
Energy Source	847.00	0.08	0.00	0.00	850.00
Water Usage	88.10	2.04	0.05	0.00	154.00
Waste	22.70	2.27	0.00	0.00	79.30
Refrigerants	0.00	0.00	0.00	1,078.00	1,078.00
TRU Source					156.68
On-Site Equipment					286.15
<b>Total CO<sub>2</sub>e (All Sources)</b>					<b>4,236.54</b>
<i>Subtraction of Emissions from Existing Land Uses</i>					<i>-1,645.77</i>
<b>Total Net CO<sub>2</sub>e (All Sources)</b>					<b>2,590.77</b>

(Urban Crossroads, 2022d, p. 58)

The DEIR concludes:

“Construction and operation of the Project less emissions from the existing onsite uses would result a net total of new GHG emissions of approximately 2,590.77 MTCO<sub>2</sub>e/yr, which would fall below the significance threshold of 3,000 MTCO<sub>2</sub>e/yr; therefore, Project-related GHG emissions are considered less than significant” (p. 4.6-22).

The DEIR’s analysis, as well as the subsequent less-than-significant impact conclusion, is incorrect for three reasons.

- (1) The DEIR’s quantitative GHG analysis relies upon a flawed air model;
- (2) The DEIR’s quantitative GHG analysis relies upon an outdated threshold; and
- (3) The DEIR’s unsubstantiated air model indicates a potentially significant impact.

**1) Incorrect and Unsubstantiated Quantitative Analysis of Emissions**

The DEIR estimates that the Project would generate net annual GHG emissions of 2,590.77 MT CO<sub>2</sub>e/year (Table 4.6-3, p. 4.6-22). However, the DEIR’s quantitative GHG analysis is unsubstantiated because the DEIR relies on CalEEMod Version 2022.1 to estimate the Project’s air quality emissions and fails to provide the complete output files required to adequately evaluate model’s analysis. When reviewing the CalEEMod output files included in the AQ Analysis, we were able to identify several model inputs that are inconsistent with information disclosed in the DEIR. As a result, the models may underestimate the Project’s emissions, and the DEIR’s quantitative GHG analysis should not be relied upon to determine Project significance. A revised EIR should be prepared that adequately assesses the

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(CONT.)

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potential GHG impacts that construction and operation of the proposed Project may have on the environment.

*2) Incorrect Reliance on an Outdated Quantitative GHG Threshold*

As previously stated, the DEIR estimates that the Project would generate net annual GHG emissions of 1,047.49 MT CO<sub>2</sub>e/year, which would not exceed the SCAQMD threshold of 3,000 MT CO<sub>2</sub>e/year (p. 4-37). However, the guidance that provided the 3,000 MT CO<sub>2</sub>e/year threshold, the SCAQMD’s 2008 *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules, and Plans* report, was developed when the Global Warming Solutions Act of 2006, commonly known as “AB 32”, was the governing statute for GHG reductions in California. AB 32 requires California to reduce GHG emissions to 1990 levels by 2020.<sup>19</sup> Furthermore, AEP guidance states:

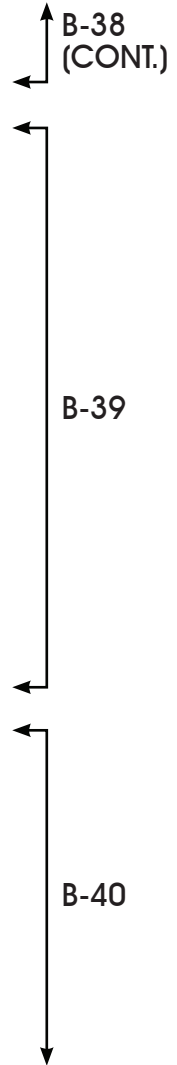
“[F]or evaluating projects with a post 2020 horizon, the threshold will need to be revised based on a new gap analysis that would examine 17 development and reduction potentials out to the next GHG reduction milestone.”<sup>20</sup>

As it is currently September 2023, thresholds for 2020 are not applicable to the proposed Project and should be revised to reflect the current GHG reduction target. As such, the SCAQMD bright-line threshold of 3,000 MT CO<sub>2</sub>e/year is outdated and inapplicable to the proposed Project, and the DEIR’s less-than-significant GHG impact conclusion should not be relied upon. Instead, we recommend that the Project apply the SCAQMD 2035 service population efficiency target of 3.0 metric tons of carbon dioxide equivalents per service population per year (“MT CO<sub>2</sub>e/SP/year”), which was calculated by applying a 40% reduction to the 2020 targets.<sup>21</sup>

*3) Failure to Identify a Potentially Significant GHG Impact*

In an effort to quantitatively evaluate the Project’s GHG emissions, we compared the Project’s GHG emissions, as estimated by the DEIR, to the SCAQMD 2035 service population efficiency target of 3.0 MT CO<sub>2</sub>e/SP/year. When applying this threshold, the Project’s air model indicates a potentially significant GHG impact. As previously stated, the DEIR estimates that the Project would generate net annual GHG emissions of 2,590.77 MT CO<sub>2</sub>e/year (Table 4.6-3, p. 4.6-22). According to CAPCOA’s *CEQA & Climate Change* report, a service population (“SP”) is defined as “the sum of the number of residents and the number of jobs supported by the project.”<sup>22</sup> As the Project does not propose any residential land uses, we estimate that the Project would not support any residents. Furthermore, according to the DEIR, the Project would support approximately 226 employees (p. 4.10-13). Based on this estimate, we calculated

<sup>19</sup> “Health & Safety Code 38550.” California State Legislature, January 2007, *available at*: [https://leginfo.ca.gov/faces/codes\\_displaySection.xhtml?lawCode=HSC&sectionNum=38550](https://leginfo.ca.gov/faces/codes_displaySection.xhtml?lawCode=HSC&sectionNum=38550).  
<sup>20</sup> “Beyond Newhall and 2020: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California.” Association of Environmental Professionals (AEP), October 2016, *available at*: [https://califaep.org/docs/AEP-2016\\_Final\\_White\\_Paper.pdf](https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf), p. 39.  
<sup>21</sup> “Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #15.” SCAQMD, September 2010, *available at*: [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf), p. 2.  
<sup>22</sup> CAPCOA (Jan. 2008) *CEQA & Climate Change*, p. 71-72, <https://www.ourair.org/wp-content/uploads/CAPCOA-CEQA-and-Climate-Change.pdf>.





an SP of 226 people. When dividing the Project’s net annual GHG emissions, as estimated by the DEIR, by an SP of 226 people, we find that the Project would emit approximately 11.5 MT CO<sub>2</sub>e/SP/year (see table below).<sup>23</sup>

DEIR Greenhouse Gas Emissions	
Annual Emissions (MT CO <sub>2</sub> e/year)	2,590.77
Service Population	226
Service Population Efficiency (MT CO <sub>2</sub> e/SP/year)	11.5
<b>SCAQMD 2035 Threshold</b>	<b>3.0</b>
<i>Exceeds?</i>	<b>Yes</b>

As demonstrated above, the Project’s service population efficiency value, as estimated by the DEIR’s provided net annual GHG emission estimates and SP, exceeds the SCAQMD 2035 efficiency target of 3.0 MT CO<sub>2</sub>e/SP/year, indicating a potentially significant impact not previously identified or addressed by the DEIR. As a result, the DEIR’s less-than-significant GHG impact conclusion should not be relied upon. A revised EIR should be prepared to include an updated GHG analysis which incorporates additional mitigation measures to reduce the Project’s GHG emissions to less-than-significant levels.

**Mitigation**

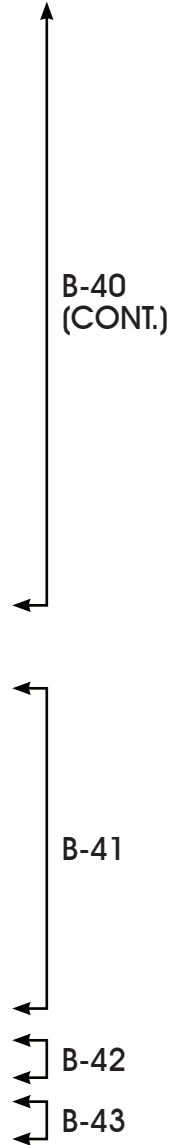
**Feasible Mitigation Measures Available to Reduce Emissions**

Our analysis demonstrates that the Project would result in potentially significant air quality and GHG impacts that should be mitigated further. In an effort to reduce emissions, the Project should consider the implementation of the following mitigation measures found in the California Department of Justice Warehouse Project Best Practices document.<sup>24</sup>

- Requiring off-road construction equipment to be hybrid electric-diesel or zero emission, where available, and all diesel-fueled off-road construction equipment to be equipped with CARB Tier IV-compliant engines or better, and including this requirement in applicable bid documents, purchase orders, and contracts, with successful contractors demonstrating the ability to supply the compliant construction equipment for use prior to any ground-disturbing and construction activities.
- Prohibiting off-road diesel-powered equipment from being in the “on” position for more than 10 hours per day.
- Using electric-powered hand tools, forklifts, and pressure washers, and providing electrical hook ups to the power grid rather than use of diesel-fueled generators to supply their power.

<sup>23</sup> Calculated: (2,590.77 MT CO<sub>2</sub>e/year) / (226 service population) = (11.5 MT CO<sub>2</sub>e/SP/year).

<sup>24</sup> “Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act.” State of California Department of Justice, September 2022, available at: <https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf>, p. 8 – 10.





- Designating an area in the construction site where electric-powered construction vehicles and equipment can charge. ↩ B-44
- Limiting the amount of daily grading disturbance area. ↩ B-45
- Prohibiting grading on days with an Air Quality Index forecast of greater than 100 for particulates or ozone for the project area. ↩ B-46
- Forbidding idling of heavy equipment for more than three minutes. ↩ B-47
- Keeping onsite and furnishing to the lead agency or other regulators upon request, all equipment maintenance records and data sheets, including design specifications and emission control tier classifications. ↩ B-48
- Conducting an on-site inspection to verify compliance with construction mitigation and to identify other opportunities to further reduce construction impacts. ↩ B-49
- Using paints, architectural coatings, and industrial maintenance coatings that have volatile organic compound levels of less than 10 g/L. ↩ B-50
- Providing information on transit and ridesharing programs and services to construction employees. ↩ B-51
- Providing meal options onsite or shuttles between the facility and nearby meal destinations for construction employees. ↩ B-52
- Requiring all heavy-duty vehicles engaged in drayage to or from the project site to be zero-emission beginning in 2030. ↩ B-53
- Requiring all on-site motorized operational equipment, such as forklifts and yard trucks, to be zero-emission with the necessary charging or fueling stations provided. ↩ B-54
- Requiring tenants to use zero-emission light- and medium-duty vehicles as part of business operations. ↩ B-55
- Forbidding trucks from idling for more than three minutes and requiring operators to turn off engines when not in use. ↩ B-56
- Posting both interior- and exterior-facing signs, including signs directed at all dock and delivery areas, identifying idling restrictions and contact information to report violations to CARB, the local air district, and the building manager. ↩ B-57
- Installing solar photovoltaic systems on the project site of a specified electrical generation capacity that is equal to or greater than the building's projected energy needs, including all electrical chargers. ↩ B-58
- Designing all project building roofs to accommodate the maximum future coverage of solar panels and installing the maximum solar power generation capacity feasible. ↩ B-59
- Constructing zero-emission truck charging/fueling stations proportional to the number of dock doors at the project. ↩ B-60
- Running conduit to designated locations for future electric truck charging stations. ↩ B-61
- Unless the owner of the facility records a covenant on the title of the underlying property ensuring that the property cannot be used to provide refrigerated warehouse space, constructing electric plugs for electric transport refrigeration units at every dock door and requiring truck operators with transport refrigeration units to use the electric plugs when at loading docks. ↩ B-62



- Oversizing electrical rooms by 25 percent or providing a secondary electrical room to accommodate future expansion of electric vehicle charging capability. ↩ B-63
- Constructing and maintaining electric light-duty vehicle charging stations proportional to the number of employee parking spaces (for example, requiring at least 10% of all employee parking spaces to be equipped with electric vehicle charging stations of at least Level 2 charging performance) ↩ B-64
- Running conduit to an additional proportion of employee parking spaces for a future increase in the number of electric light-duty charging stations. ↩ B-65
- Installing and maintaining, at the manufacturer’s recommended maintenance intervals, air filtration systems at sensitive receptors within a certain radius of facility for the life of the project. ↩ B-66
- Installing and maintaining, at the manufacturer’s recommended maintenance intervals, an air monitoring station proximate to sensitive receptors and the facility for the life of the project, and making the resulting data publicly available in real time. While air monitoring does not mitigate the air quality or greenhouse gas impacts of a facility, it nonetheless benefits the affected community by providing information that can be used to improve air quality or avoid exposure to unhealthy air. ↩ B-67
- Requiring all stand-by emergency generators to be powered by a non-diesel fuel. ↩ B-68
- Requiring facility operators to train managers and employees on efficient scheduling and load management to eliminate unnecessary queuing and idling of trucks. ↩ B-69
- Requiring operators to establish and promote a rideshare program that discourages single-occupancy vehicle trips and provides financial incentives for alternate modes of transportation, including carpooling, public transit, and biking. ↩ B-70
- Meeting CalGreen Tier 2 green building standards, including all provisions related to designated parking for clean air vehicles, electric vehicle charging, and bicycle parking. ↩ B-71
- Designing to LEED green building certification standards. ↩ B-72
- Providing meal options onsite or shuttles between the facility and nearby meal destinations. ↩ B-73
- Posting signs at every truck exit driveway providing directional information to the truck route. ↩ B-74
- Improving and maintaining vegetation and tree canopy for residents in and around the project area. ↩ B-75
- Requiring that every tenant train its staff in charge of keeping vehicle records in diesel technologies and compliance with CARB regulations, by attending CARB-approved courses. Also require facility operators to maintain records on-site demonstrating compliance and make records available for inspection by the local jurisdiction, air district, and state upon request. ↩ B-76
- Requiring tenants to enroll in the United States Environmental Protection Agency’s SmartWay program, and requiring tenants who own, operate, or hire trucking carriers with more than 100 trucks to use carriers that are SmartWay carriers. ↩ B-77
- Providing tenants with information on incentive programs, such as the Carl Moyer Program and Voucher Incentive Program, to upgrade their fleets. ↩ B-78



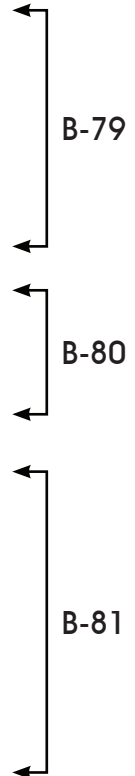
These measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently, reduce emissions released during Project construction and operation.

Furthermore, as it is policy of the State that eligible renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers by December 31, 2045, we emphasize the applicability of incorporating solar power system into the Project design. Until the feasibility of incorporating on-site renewable energy production is considered, the Project should not be approved.

A revised EIR should be prepared to include all feasible mitigation measures, as well as include updated air quality and GHG analyses to ensure that the necessary mitigation measures are implemented to reduce emissions to below thresholds. The revised EIR should also demonstrate a commitment to the implementation of these measures prior to Project approval, to ensure that the Project's significant emissions are reduced to the maximum extent possible.

**Disclaimer**

SWAPE has received limited discovery regarding this project. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.



Sincerely,

Matt Hagemann, P.G., C.Hg.

Paul E. Rosenfeld, Ph.D.



**Responses to Comment B**

**Blum, Collins & Ho LLP on behalf of Golden State Environmental Justice Alliance dated October 4, 2023.**

- B-1 This comment consists of introductory remarks and identifies that the comments on the Draft EIR are being provided by Blum Collins & Ho, LLP on behalf of the Golden State Environmental Justice Alliance (GSEJA). The statement of interest is acknowledged and the City will include GSEJA on the mailing list for future CEQA notices related to the Project.
- B-2 This comment provides a general summary of the Project Description as provided in the Draft EIR. This comment does not raise any issues concerning the environmental analysis provided in the Draft EIR and thus no further response is required.
- B-3 The commenter asserts that the Draft EIR does not accurately describe the Project and asserts that the Project is associated with another Project (East State Street Warehouse Project - PDEV22-010) that was approved by the City in January 2023. The commenter is incorrect in asserting that the EIR should examine all Prologis buildings as a whole. The East State Street Warehouse Project was approved by the City's Planning Commission on January 24, 2023. The project applicant for the East State Street Warehouse Project was previously Duke Realty Corporation until the acquisition of the company by Prologis, Inc. in October 2022. The East State Street Warehouse Project is separate from and has independent utility from the 5355 East Airport Drive Project. The two projects are in different locations within the City and have been processed under separate entitlements and discretionary approvals. Piecemealing or segmenting means dividing a project into two or more pieces and evaluating each piece in a separate environmental document, rather than evaluating the whole of the project in one environmental document. The East State Street Warehouse Project and the 5355 East Airport Drive Project are independent of each other and are not part of a larger development project. Therefore, the Draft EIR adequately analyzed the Project as a whole. No additions, revisions, or corrections to the Draft EIR are necessary and no further response is required.
- B-4 The commenter states the requirements from CEQA Guidelines Sections 15146 and 15161 regarding the degree of specificity in an EIR and the definition of a Project EIR. The commenter is incorrect in stating that there are two proposed buildings as part of a single construction project. Refer to Response to Comment B-3 above regarding how the proposed Project and East State Street Warehouse Project are separate and independent development projects with independent utility. As stated in Section 1.0, *Introduction*, of the Draft EIR, the Draft EIR serves as an EIR for the proposed 5355 East Airport Drive Project. For purposes of this EIR, the term "Project" refers to all actions associated with implementation of the 5355 East Airport Drive project including its planning, construction, and ongoing operations. Additionally, acting as Lead Agency, the City of Ontario will consider the following items regarding the proposed Project and this Draft EIR: a) evaluation of this EIR to determine if the physical environmental impacts of the Project are adequately disclosed; b) assessment of the adequacy and feasibility of identified mitigation measures; c) consideration of alternatives to



the Project that could reduce or eliminate significant environmental effects of the Project; and, if necessary, d) consideration of Project benefits that override the Project's unavoidable and unmitigable significant effects on the environment. (Refer to Draft EIR pp. 1-1 and 1-5) Therefore, the Draft EIR adequately analyzed the Project as a whole. No additions, revisions, or corrections to the Draft EIR are necessary and no further response is required.

- B-5 The commenter asserts that the Draft EIR provides misleading information regarding project grading stating that earthwork will balance whereas the grading plan shows that 9,000 cy of exported material is required. This assertion is incorrect. Draft EIR p. 3-313 discloses that the Project's grading operation would result in 9,000 more cubic yards of cut than fill, but final earthwork quantities are subject to final civil engineering design and after final engineering, the earthwork is expected to balance with no import or export of earth material required. Nonetheless, as stated in the Project's Air Quality Impact Analysis (*Technical Appendix B1* to this Draft EIR), under Section 4.4.1, *Construction Activities*, the Project is anticipated to require approximately 9,000 cubic yards of export soil. Therefore, even though the exact final earthwork quantities are subjected to final civil engineering design, the environmental analysis provided in the Draft EIR included that 9,000 cubic yards of export soils would be required under the Project's grading activities. The clarification in the Project Description is not substantial new information warranting recirculation, as the analysis in the Draft EIR included the possible export activity.
- B-6 The commenter refers to the attachments from the Soil / Water / Air Protection Enterprise (SWAPE) letter. Comments related to potential environmental concerns in the SWAPE letter are responded to below in the response to Comments B-23 to B-82.
- B-7 The commenter summarizes existing air quality conditions within the census tract where the Project site is located using data obtained from the California Environmental Protection Agency (CalEnviroScreen 4.0). The commenter also notes that the Project site and its surroundings are located in census tracts that are classified by the State of California as "disadvantaged communities" and states that air pollution from the Project represents an environmental justice issue. As discussed in Section 2.0, *Environmental Setting*, of the Draft EIR, details about the Project site and its surroundings in CalEnviroScreen 4.0 are disclosed in Pages 2-1 through 2-3 of the Draft EIR.

Environmental justice is not a topic that is required to be evaluated or considered pursuant to CEQA Guidelines Sections 15120-15132 (Contents of Environmental Impact Reports). In addition, air quality impacts are not required to be assessed based on census tract locations. Notwithstanding, the air quality analysis contained in the Draft EIR demonstrates that the Project would not expose any sensitive receptor, which includes receptors located in disadvantaged communities, to substantial concentrations of localized criteria pollutants or diesel particulate matter source emissions. To the contrary, the Project would not expose sensitive receptors to substantial pollutant concentrations and impacts would be less than significant (refer to Pages 4.2-35 to 4.2-36 of the Draft EIR).



The commenter is reminded that the Project site is primarily surrounded by industrial uses. The residential land use with the greatest potential exposure to Project operational source emissions is located approximately 8,840 feet (1.67 miles) northwest of the Project site on the opposite side of I-15 and I-10. The nearest school is located 11,200 feet (2.12 miles) away from the Project site. The commenter provides no evidence to support its claim that the Project, which is converting an already developed industrial site in an industrial area of the City, to a contemporary industrial use, would in any way have a significant adverse effect to sensitive receptors located more than 1.6 miles away from the Project site.

- B-8 The commenter states that the California Building Energy Code Compliance (CBECC) software is the State's only approved energy compliance software for non-residential buildings in compliance with Title 24. The commenter incorrectly states that CalEEMod-based modeling should not have been used to calculate the Project's potential impacts because it does not comply with 2022 Building Energy Efficiency Standards and underreports the Project's energy impacts and fuel consumption.

The commenter is correct that CBECC software is approved specifically for Title 24 compliance, which would be required to be used for any development project at the time of its physical building construction, which occurs approximately 12-18 months after entitlement. The compliance modeling software referenced by the commenter is used to confirm that a final building design, with detailed information included in its construction drawings, is Title 24 compliant. The proposed Project's final designs and construction drawings are not available at this time and are not typically prepared until after a proposed development project is approved/entitled.

The Draft EIR and underlying technical studies correctly use CalEEMod to estimate energy demand based on average intensity factors for similar land use types based on the Project's site plan provided to the City for entitlement. Since the occupant(s) of the Project's buildings are unknown at this time, and information about the future building user's energy use is also not available at this time, it is appropriate to rely upon the CalEEMod default assumptions which have been derived by the California Air Pollution Control Officers Association (CAPCOA) based on survey data. There is no requirement in CEQA to show specific compliance with 2022 Building Energy Efficiency Standards based on conceptual building designs proposed at the entitlement stage of a project's approval process, but such compliance is a standard regulatory requirement. This will be a requirement pursuant to State law prior to issuance of each building permit and verified by the City's Building and Safety Department.

- B-9 The commenter asserts that the Project applicant requested vehicle trip counts be recorded at the project site very early on in the process (March 2022) in order to create artificially inflated trip reduction credits that do not match the Environmental Setting and that the trip reduction credits should be removed in the Draft EIR analysis. The commenter makes an incorrect assumption without substantial evidence that the tenant, Verhoeven Grain, closed its operation on the Project site in September 2022 at the time the Notice of Preparation was released. As discussed in Section 4.1, *Aesthetics*, of the Draft EIR, the Project Site is occupied by





Verhoeven, a grain processing facility (sub-tenant), and The Scouler Company, a corn storage and distribution facility, under existing conditions. (Refer to Draft EIR p. 4.1-1) Verhoeven and The Scouler Company occupied the Project site until April 2023. Therefore, the City's experts disagree with the comment and have determined that the trip counts taken at the Project site are an accurate representation of the Project's environmental setting. Thus, no additions, revisions, or corrections to the Draft EIR are necessary and no further response is required.

- B-10 The commenter states that the Draft EIR has not adequately analyzed the project's potential to substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses since there are no exhibits adequately depicting the onsite turning radius available for trucks maneuvering throughout the site. As the commenter's request, the Project's truck turning plan, titled, *Truck Turning Exhibit*, has been added *Attachment C* to the Final EIR. As shown, there is adequate turning radius for trucks to enter and exit the Project site. Therefore, the Project would not create or substantially increase safety hazards due to a design feature or incompatible use and impacts would be less than significant. Thus, no further response is required.
- B-11 The commenter asserts that the Draft EIR is deferring analysis related to sight distance. As stated in Section 4.10, *Transportation*, of the Draft EIR, the Project's construction and operation would not create or substantially increase safety hazards due to a design feature or incompatible use. The Project has been designed to provide adequate truck access/circulation and the City of Ontario Engineering Department reviewed the Project's application materials including the Project's preliminary grading, landscape, truck turning, and street improvement plans, and determined that no hazardous transportation design features would be introduced within the City public right-of-way through implementation of the Project. (Refer to Draft EIR p. 4.10-14) The Draft EIR did not defer analysis related to sight distance since the City has already reviewed all Project's plans through the entitlement process, and there is a regulatory requirement for review of detailed construction drawings at the building permit plan check and street improvement plan check stages of Project implementation. Refer to the City of Ontario Municipal Code Sec. 7-3.11. Sight distance. "*No hedge, shrub, or other planting, and no fence or other structure, shall be planted, erected, or maintained in a right-of-way without a permit or upon any sidewalk or shoulder or in such a manner which impedes, obstructs, denies, or impairs the sight distance for safe pedestrian and vehicular traffic.*" Final grading, landscape, and street improvement plans would be submitted to the City for review once the Project's entitlement is approved. Thus, no additions, revisions, or corrections to the Draft EIR are necessary and no further response is required.
- B-12 The commenter incorrectly asserts that the Project is not consistent with SCAG's Connect SoCal Goals 5, 6 and 7 due to the alleged error in modeling and significant and unavoidable impacts related to transportation (VMT). Goal 5 of the SCAG's Connect SoCal is to reduce greenhouse gas emissions and improve air quality. As stated in Section 4.10, *Transportation*, of the Draft EIR (refer to Draft EIR p. 4.10-8), the Project is not in conflict with this goal since the Project would have a less than significant impact under the topics of Air Quality (refer to EIR Subsection 4.2) and Greenhouse Gas Emissions (refer to EIR Subsection 4.6).



Additionally, and as discussed in EIR Section 3.0, *Project Description*, and Subsection 4.4, *Energy*, the Project would incorporate various measures required by the California Green Building Standards Code (CALGreen) related to building design, landscaping, and energy systems to promote the efficient use of energy. The Project also would construct roadway frontage improvements, including sidewalks which would encourage walking in the Project area. Therefore, the Project is consistent with Goal 5 of the SCAG’s Connect SoCal, and no revisions to the Draft EIR are required.

Goal 6 of the SCAG’s Connect SoCal is to support healthy and equitable communities. The proposed building design would support the health of occupants and users by using non-toxic building materials and finishes, and by using windows to maximize natural light and ventilation. Additionally, as discussed in the Draft EIR under Threshold c in Section 4.1 (starting on Draft EIR p. 4.2-33), (1) the Project’s localized construction and operational emissions would not exceed the SCAQMD localized significance thresholds; (2) based on the Project-specific mobile source health risk assessment (HRA) (*Technical Appendix B2* of the Draft EIR), the Project would not result in significant health impacts due to diesel particulate matter (DPM) emissions; and (3) the Project would not cause or contribute to any CO “hot spots”. Therefore, the Project is consistent with Goal 6 of the SCAG’s Connect SoCal, and no revisions to the Draft EIR are required.

Goal 7 of the SCAG’s Connect SoCal is to adapt to a changing climate and support an integrated regional development. The Project is consistent with this goal because Connect SoCal indicates that since the adoption of the Connect SoCal, there have been significant drivers of change in the goods movement industry including emerging and new technologies, more complex supply chain strategies, evolving consumer demands and shifts in trade policies. Warehouse distribution and ecommerce continues to be one of the most influential factors shaping goods movement. The Project involves the redevelopment of the Project Site, historically used for corn storage and grain mill with a warehouse facility that would diversify the City of Ontario’s economy and bring employment opportunities closer to the local workforce. Co-locating jobs near housing reduces greenhouse gas emissions caused by long commutes and contributes to integrated development patterns. Therefore, the Project is consistent with Goal 7 of the SCAG’s Connect SoCal, and no revisions to the Draft EIR are required. As such, the Draft EIR provided ample information about the Project’s impacts for informed decision-making.

- B-13 The commenter states that Draft EIR did not model the Project’s energy consumption in compliance with Title 24 modeling software. The Title 24 software is not the appropriate software for use as explained in Response to Comment B-8 regarding the use of the CBECC. The City’s experts disagree and thus, no further response is required.
- B-14 The commenter incorrectly asserts that the Draft EIR does not discuss the Project’s significant and unavoidable Transportation (VMT) impacts and thus the Project’s inability to comply with SB 743. The Project’s significant and unavoidable VMT impacts are discussed in several sections of the Draft EIR. As discussed in Draft EIR Section 4.10, *Transportation*, the Project



did not meet any of the VMT screening criteria and a project level VMT analysis (*Technical Appendix J* to the Draft EIR) was prepared to assess the Project's potential impact to VMT. As shown in Table 4.10-7, the Project would exceed the City's VMT per SP impact threshold for both the baseline and TOP buildout conditions. Mitigation measure MM 4.10-1 will reduce the Project's VMT per service population by some percentage based on the level of participation achieved, but based on the above-described factors, it is not feasible to reduce VMT to below a level of significance. However, as the Project area and surrounding communities develop as envisioned under the City of Ontario General Plan (TOP), new residential, retail, and industrial development would be implemented. These actions could collectively alter transportation patterns, improve the region's jobs/housing ratio, reduce VMT, and support implementation of new or alternative TDM measures. With the implementation of mitigation measure MM 4.10-1, VMT is expected to be reduced, but the Project's impacts related to VMT would still be significant and unavoidable. (Refer to Draft EIR pp. 4.10-11 to 4.10-14; 4.10-16 to 4.10-17) Therefore, the Draft EIR adequately discloses the Project's significant and unavoidable VMT impacts. No additions, revisions, or corrections to the Draft EIR are necessary and no further response is required.

- B-15 The commenter asserts that the Draft EIR utilizes uncertain and misleading language to support its conclusion that the project will not have growth inducing impacts and that a revised EIR must be prepared to account for longer worker trip distances. The commenter is conflating the Draft EIR's description of the availability of workforce in the area for purposes evaluating growth inducing impacts with worker commute VMT distances. As discussed in the Project's Air Quality Impact Analysis (*Technical Appendix B1* to this Draft EIR), in order to determine emissions from passenger car vehicles, CalEEMod defaults for trip length and trip purpose were utilized. Default vehicle trip lengths for primary trips was populated using data from the local metropolitan planning organizations/Regional Transportation Planning Agencies (MPO/RTPA). Trip type percentages and trip lengths provided by MPO/RTPAs truncate data at their demonstrative borders. Additionally, consistent with City Guidelines and standard VMT calculation methods, total VMT is calculated from San Bernardino Transportation Analysis Model's origin-destination trip matrices and then divided by a project's service population to derive the VMT efficiency metric VMT per service population. Therefore, the City's experts disagree and the Draft EIR adequately analyzes worker trip distances under for air quality, GHG and VMT. No additions, revisions, or corrections to the Draft EIR are necessary and no further response is required.
- B-16 The commenter asserts that an EIR must be prepared to include a cumulative analysis of all cumulative development constructed, approved projects not yet constructed, and "projects in the pipeline" within the City to determine whether the Project would exceed the projected growth determined by The Ontario Plan (TOP 2050). As discussed in in Section 5.4.5, *Population and Housing*, of the Draft EIR, the Project would generate approximately 226 employees and TOP 2050 projected a total of 296,002 jobs in 2050. According to SCAG's 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy, the City of Ontario is anticipated to employ approximately 169,300 persons by 2045 Therefore, the Project's projected employment is well within SCAG's 2045 and the TOP 2050 employment



projection. Further, the Project does not require or include a General Plan Amendment and because the Project is consistent with TOP 2050 land use designation, it is within the growth projections relied upon by the City and other agencies. Additionally, the TOP 2050 growth projection, as analyzed in the City's TOP 2050 SEIR, assumes buildout of all land within the City, which provides a cumulative analysis of the Project in addition to potential projects that will be built in the future. Therefore, the Draft EIR provided an adequate or accurate cumulative analysis and no revisions to the Draft EIR are required.

- B-17 The commenter states that the Draft EIR did not provide a consistency analysis for all applicable General Plan goals, policies, and programs. The comment lists a total of 8 goals and policies that should be added to the Draft EIR.

In numerous instances, CEQA case law has held that a project's consistency with a General Plan is not an environmental consideration and does not need to be addressed in a CEQA document (See, e.g., *North Coast Rivers Alliance et al. v. Marin Municipal Water District* (2013) 216 Cal.App.4th 614, 633; *City of Long Beach v. Los Angeles Unified Sch. Dist.*, (2009) 176 Cal. App. 4th 889, 919). What a CEQA document must address is whether the Project would conflict with the General Plan in such a way that it would result in an environmental effect. In the absence of a planning inconsistency that results in an environmental effect, it is adequate to state that no conflict would occur, which was done in the Draft EIR. Separately, as a matter of consistency with City planning documents, the City is required to determine whether the Project is consistent its General Plan, which will be provided in a staff report to the decision makers (Planning Commission and City Council). The commenter does not provide any evidence that the Project would result in an environmental effect due to a conflict with the City's General Plan. Notwithstanding, the reasoning for why each goal and policy was not included are as follows:

- *Policy ER-4.1 Land Use. We reduce GHG and other local pollutant emissions through compact, mixed use, and transit-oriented development and development that improves the regional jobs-housing balance.*

The Project does not propose mixed use or transit-oriented development. However, as discussed in Draft EIR Section 4.6, *Greenhouse Gas Emissions*, construction and operation of the Project gross emissions from the existing onsite uses would result a net total of new GHG emissions of approximately 2,590.77 MTCO<sub>2</sub>e/yr, which would fall below the significance threshold of 3,000 MTCO<sub>2</sub>e/yr; therefore, Project-related GHG emissions are considered less than significant. (Refer to Draft EIR p. 4.6-22.) Therefore, the Project would be consistent with Policy ER-4.1.

- *Policy ER-4.6 Particulate Matter. We support efforts to reduce particulate matter to meet State and Federal Clean Air Standards.*

As discussed in Draft EIR Section 4.2, *Air Quality*, Project construction and operations would not exceed the applicable SCAQMD thresholds for localized NO<sub>x</sub>, CO, and particulate matter



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(PM<sub>10</sub> and PM<sub>2.5</sub>) emissions. (Refer to Draft EIR pp. 4.2-33 to 4.2-34.) Therefore, the Project would be consistent with Policy ER-4.6.

- *Policy CE-2.4 Protection of Investment. We require that new development and redevelopment protect existing investment by providing architecture and urban design of equal or greater quality.*

As discussed in Draft EIR Section 3.0, *Project Description*, the proposed building would be constructed with concrete tilt-up panels, with special architectural features and colors at the potential office locations at the southwest and southeast corners of the building, which also would feature green reflective glazing. The proposed building's exterior color palette would be comprised of various shades of white, grays, dark grays, and dark green. Moreover, the Project would be conditioned by the City of Ontario to achieve Leadership in Energy and Environmental Design (LEED) standards. (Refer to Draft EIR pp. 3-2 and 3-6.) Therefore, the Project would be consistent with Policy CE-2.4.

- *Policy CE-3.1 Fiscal Impact Disclosure. We require requests for City Council action to disclose the full fiscal impacts, including direct and indirect costs.*

Policy CE-3.1 is not applicable to the Project since this policy does not mitigate an environmental effect. Thus, no further response is required.

- *Policy M-1.1. Roadways maintain a peak hour Level of Service (LOS) E or better at all intersections. Policy M-1.5 Level of Service. Maintain a peak hour Level of Service (LOS) E or better at all intersections. Maintain Level of Service D or better on arterial streets in the City.*

Automobile delay, as measured by LOS and other similar metrics, no longer constitutes a significant environmental effect under CEQA. Lead agencies in California are required to use VMT to evaluate project-related transportation impacts. This statewide mandate went into effect July 1, 2020. CEQA Guidelines Section 15064.3, effective January 1, 2019, "describes specific considerations for evaluating a project's transportation impacts" and provides that, except for roadway capacity projects, "a project's effect on automobile delay (or LOS)" shall not constitute a significant environmental impact" (CEQA Guidelines Section 15064.3(a)). Moreover, vehicle congestion is not a CEQA issue as it pertains to LOS. Therefore, Policies M-1.1 and M-1.5 are not applicable to the Project and no revision to the Draft EIR is required.

- *Policy CD-2.8 Safe Design. We incorporate defensible space design into new and existing developments to ensure the maximum safe travel and visibility on pathways, corridors, and open space and at building entrances and parking areas by avoiding physically and visually isolated spaces, maintaining visibility and accessibility, and using lighting.*

As discussed in Draft EIR Section 4.10, *Transportation*, as a standard condition of approval, the Project would comply with all applicable federal, State, and local design and safety



standards. In addition, the Project would provide sidewalks for pedestrian access and bike racks to meet the needs of multiple transportation modes and users. The Project area is generally surrounded by industrial uses and the Project has been designed to be compatible with the streetscape and surrounding land uses. (Refer to Draft EIR p. 4.10-9.) Therefore, the Project would be consistent with Policy CD-2.8.

- *Policy CD-2.10 Parking Areas. We require all development, including single-family residential, to minimize the visual impact of surface, structured, and garage parking areas visible from the public realm in an aesthetically pleasing, safe and environmentally sensitive manner.*

As discussed in Draft EIR Section 3.0, *Project Description*, the proposed building would have 54 loading docks and 48 truck trailer parking spaces within the truck court/loading area on the south side of the building. The truck court/loading area would be enclosed and screened from public viewing areas by landscaping and minimum 14-foot-tall concrete tilt screening walls, with 8-foot-tall black tube steel gate used at the access points. (Refer to Draft EIR p. 3-6.) Therefore, the Project would be consistent with Policy CD-2.8.

- *Goal CE-1. A complete community that provides for all incomes and stages of life.*

Goal CE-1 is not applicable to the Project since this goal does not mitigate an environmental effect. Thus, no further response is required.

- *Policy CE-1.2 Jobs and Workforce Skills. We use our economic development resources to: 1. attract jobs suited for the skills and education of current and future City residents.*

Policy CE-1.2 is not applicable to the Project since this policy does not mitigate an environmental effect. Thus, no further response is required.

- *Policy CE-2.1 Development Projects. We require new development and redevelopment to create unique, high-quality places that add value to the community.*

The Project would be subject to applicable development regulations and design standards, including, but not limited to the Ontario Development Code. Mandatory compliance to applicable development regulations and design standards would ensure that developments would incorporate high quality building materials, site design, and landscaping to the Project's design. Therefore, the Project would be consistent with Policy CE-2.1.

- *Policy CE-2.2 Development Review. We require those proposing new development and redevelopment to demonstrate how their projects will create appropriately unique, functional, and sustainable places that will compete well with their competition within the region.*

Policy CE-2.2 is not applicable to the Project since this policy does not mitigate an environmental effect. Thus, no further response is required.



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- *Policy CE-2.4 Protection of Investment. We require that new development and redevelopment protect existing investment by providing architecture and urban design of equal or greater quality.*

The Project involves the redevelopment of the Project Site (previously used for corn storage and grain mill with a warehouse facility) with a contemporary warehouse facility which has been designed to be visually compatible with the adjacent building field colors. The Project would be conditioned by the City of Ontario to achieve Leadership in Energy and Environmental Design (LEED) standards. Therefore, the Project would be consistent with Policy CE-2.4.

- *Policy M-1.6 Reduce Vehicle Miles Traveled. We will strive to reduce VMT through a combination of land use, transportation projects, travel demand management strategies, and other trip reduction measures in coordination with development projects and public capital improvement projects.*

As discussed in Draft EIR Section 4.10, *Transportation*, the Project would result in significant and unavoidable VMT impacts. Although the Project would exceed the City's VMT per Service Population impact threshold for both the baseline and TOP buildout conditions, all feasible mitigation measures have been included to reduce VMT impacts. Therefore, the Project would be consistent with Policy M-1.6.

- B-18 The commenter asserts that the Draft EIR does not provide information or analysis on the buildout conditions of the TOP 2050 and that the Project and the East State Street Warehouse Project (a separate previously approved project with independent utility from the proposed Project) represents 0.33% of the TOP 2050 buildout for Industrial uses, which is considered significant. Refer to Response to Comment B-4 regarding the relation between the proposed Project and the approved East State Street Warehouse Project and Response to Comment B-16 for a detailed discussion of the Project's cumulative analysis and its consistency with SCAG's and TOP 2050 growth projections. The City's experts disagree and no further response is warranted.
- B-19 The commenter asserts that the Draft EIR utilizes uncertain and misleading language which does not provide any meaningful analysis of the Project's impacts to population and employment generation and that the EIR must be prepared to provide an accurate estimate of employees generated by all uses of the Project. As discussed in Draft EIR Section 5.4.5, *Population and Housing*, the Project would generate approximately 226 employees and TOP 2050 projected a total of 296,002 jobs in 2050. Therefore, the Project's projected employment is well within TOP 2050 employment projection in 2050. No additions, revisions, or corrections to the Draft EIR are necessary and no further response is required.
- B-20 The commenter asserts that a revised EIR must be prepared to provide a cumulative analysis discussion of projects approved since 2016 and projects "in the pipeline" to determine if the Project will exceed the employment/population growth forecasts by SCAG and/or the General



Plan. Refer to Response to Comment B-16 for a detailed discussion of the Project's cumulative analysis and its consistency with SCAG's and TOP 2050 growth projections. The City's experts disagree with the commenter and thus no further response is warranted.

- B-21 The commenter incorrectly asserts that the Draft EIR does not evaluate a reasonable range of alternatives as only two alternatives beyond the No Project alternative are analyzed. As discussed in Section 6.0, *Alternatives*, of the Draft EIR, an alternative sites alternative was considered but rejected since an alternative location is not available that would avoid or substantially lessen the significant environmental effects of the Project, and because the Project Applicant does not have ownership control over, and cannot reasonably obtain ownership control over, any other parcels of land of adequate size in the jurisdiction of the City that could accommodate the Project. Pursuant to State CEQA Guidelines Section 15126.6(a) “[a]n EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. In determining an appropriate range of alternatives to be evaluated in this EIR, a number of possible alternatives were initially considered and, for a variety of reasons, rejected. In accordance with State CEQA Guidelines section 15126.6(c), alternatives were rejected because either: 1) they could not accomplish the basic objectives of the Project, 2) they would not have resulted in a reduction of significant adverse environmental impacts, or 3) they were considered infeasible to construct or operate. (Refer to Draft EIR pp 6.4 to 6.5.) Therefore, contrary to the commenter's assertion, the Draft EIR adequately identifies a range of alternatives and no revisions to the Draft EIR are required.
- B-22 This comment provides conclusionary remarks. The City acknowledges the statement of interest and will include GSEJA on the mailing list for future CEQA notices related to the Project.
- B-23 The commenter summarizes the Project description and incorrectly claims that the Draft EIR's hazards and hazardous materials, air quality, health risk and GHG emissions impacts are underestimated and request preparation of an updated EIR based on subsequent comments. This is a summary of the detailed comments provided in the body of the commenter letter, which are responded to in the following responses to Comments B-18 through B-82. Thus, the City's experts disagree and no further response is required.
- B-24 The commenter summarizes the Draft EIR's analysis related to the potential of tetrachloroethylene (PCE) onsite and mitigation measure MM 4.7-1. This comment does not raise any issues concerning the environmental analysis provided in the Draft EIR and thus no further response is required.
- B-25 The commenter asserts that mitigation measure 4.7-1 failed to include the recommendation from the Project's Phase I/Phase II Environmental Site Assessment Report (*Technical Appendix G* to the Draft EIR) related to the potential of PCE in the indoor air of the future building. During additional soil investigations conducted at the site in December 2022 and





September 2023 (as shown in *Attachments D and E* to this Final EIR), tetrachloroethene (PCE) detections in soil gas either were not detected above laboratory reporting limits or were less than the calculated soil gas screening level using a 0.03 attenuation factor. Soil vapor sampling locations were chosen in areas of known impacts and sampling data from the last two sampling rounds at the Project site has not established the potential for an unacceptable vapor intrusion risk in the planned future building footprint. Soil impacts (if any) associated with previous industrial activities and features at the site that may be encountered during site redevelopment will be addressed and managed by the implementation of a Media Management Plan (*Attachment F* to this Final EIR). The purpose of a Media Management Plan is to provide protocols for managing confirmed and potentially contaminated media that may be encountered during future improvement activities involving subsurface work at the Project site. Thus, the City's experts disagree and no additions, revisions, or corrections to the Draft EIR are necessary.

- B-26 The commenter states that the use of CalEEMod Version 2022.1 to estimate the Project emissions is an issue since it is a soft release and complete JavaScript Object Notation (JSON) output files were not presented. The commenter is incorrect as CalEEMod 2022 is no longer a soft release and should be used over 2020 as it is the newest model that more accurately presents emissions as compared to CalEEMod 2020. Additionally, the JSON model input files are available for review and were also provided upon request during the public review process to SCAQMD. Therefore, the City's experts disagree and no additions, revisions, or corrections to the Draft EIR are necessary.
- B-27 The commenter asserts that the Draft EIR understates the Project's construction and operational air pollutant emissions due to assumptions that are purported to be unsubstantiated. Refer to Response to Comment B-26 regarding the use of CalEEMod 2022.1 and complete output files. Therefore, the City's experts disagree and no additions, revisions, or corrections to the Draft EIR are necessary.
- B-28 The commenter questions the changes made to the CalEEMod defaults used in the Project analysis and states that the changes to the individual construction phase lengths remain unsubstantiated or identified in the Draft EIR. The changes to the Project's construction schedule are summarized and disclosed in the Draft EIR and underlying the Project's Air Quality Impact Analysis (*Technical Appendix B1* to the Draft EIR), which provides a detailed summary of the start and end dates of construction along with the number of working days of activity. To the contrary, Page 33 of the Project's Air Quality Impact Analysis clearly states, that "The duration of construction and associated equipment represents a reasonable approximation of the expected construction fleet as required per CEQA Guidelines." In this case, site-specific information was provided by the Project Applicant relative to the Project's construction schedule and equipment list were reviewed and provided. Therefore, the City's experts disagree and no additions, revisions, or corrections to the Draft EIR are necessary.
- B-29 The commenter claims that unsubstantiated architectural coating emissions parameters were used to estimate VOC emissions from Project construction since the accuracy of the revised



architectural coating emission factors based on SCAQMD Rule 1113 cannot be verified. As stated in Section 4.2, *Air Quality*, of the Draft EIR (refer to Draft EIR p. 4.2-19) and the Project's Air Quality Impact Analysis (*Technical Appendix B1* to the Draft EIR, p. 2), the Project would be required to comply with SCAQMD Rule 1113 which limits the VOC content of architectural coatings to 50 g/l for the building envelope. The "building envelope" coating category is appropriate to use for the Project because the primary painting activities would be for the physical interior and exterior structure (walls), which constitute the "building envelope." The SCAQMD's rule also serves as substantial evidence because SCAQMD is the applicable jurisdiction governing air quality in the Project's region. Therefore, the City's experts disagree and the Project's Draft EIR relied on appropriate assumptions to quantify construction-related VOC emissions. No additions, revisions, or corrections to the Draft EIR are necessary and no further response is required.

- B-30 The commenter further claims that unsubstantiated architectural coating emissions parameters were used to estimate VOC emissions from Project construction by citing Table 5.5 in the Project's Air Quality Impact Analysis (*Technical Appendix B1* to the Draft EIR). The commenter goes on to cite notes that were added in the modeling output files to substantiate the changes to the model defaults but erroneously dismisses the notes. Refer to Response to Comment B-29 above regarding the assumption used. Thus, the City's experts disagree and no further response is required.
- B-31 The commenter asserts that the Draft EIR understates the Project's operational air pollutant emissions due to the model changes to the fleet mix that are purported to be unsubstantiated. Pages 36 through 38 of the Project's Air Quality Impact Analysis clearly states that the Project-specific passenger car fleet mix used in this analysis is based on a proportional split utilizing the default CalEEMod percentages assigned to LDA, LDT1, LDT2, and MDV vehicle types and that the Project-specific truck fleet mix is based on the number of trips generated by each truck type (LHDT1, LHDT2, MHDT, and HHDT) e.g. 2, 3 & 4+ axle trucks, relative to the total number of truck trips. As such, the truck mix was adjusted according to the truck trips taken from the Project's Trip Generation Assessment (*Technical Appendix K* to the Draft EIR). This fleet mix adjustment was made to appropriately account for the emissions from passenger cars vs trucks. The Project's air quality analysis is technically sound and relied on appropriate assumptions and methodologies that are supported by substantial evidence. Also refer to Response to Comment B-26, B-27 and B-28. The City's experts disagree and thus, no additions, revisions, or corrections to the Draft EIR are necessary and no further response is required.
- B-32 The commenter claims that the use of Tier 4 construction equipment modeled is not formally included as mitigation measures, and it cannot be guaranteed that these standards would be implemented, monitored, and enforced on the Project site. Contrary to what the commentor states, the Project's Air Quality Impact Analysis (*Technical Appendix B1* to the Draft EIR) state that under the City of Ontario General Plan, construction activities associated with future developments accommodated under the general plan would require the use of construction equipment meeting at least Tier 4 Interim exhaust emission limits (refer to *Technical Appendix*



B1 pp. 3 and 33). As such, the proposed Project will utilize equipment meeting at least Tier 4 Interim standards. The use of Tier 4 as stated above is required under the City of Ontario General Plan and as such will be enforced by the City.

- B-33 The commenter provides an alternative air pollution analysis (CalEEMod v. 2020.4.0 with varying defaults set) that claims to demonstrate that the Project would result in a significant impact during construction from VOC emissions. First, the commenter does not provide any substantiation for the assumptions made in the alternative air quality modeling. Second, the version of the air quality analysis model used by the commenter (CalEEMod Version 2020.4.0) is outdated and has been replaced by a subsequent model update (CalEEMod Version 2022.1, which is the model used for the Project's analysis). Use of CalEEMod Version 2020.4.0 is no longer deemed acceptable by the South Coast Air Quality Management District. As demonstrated by Responses to Comments B-26 through B-32, the Project's air quality analysis is technically sound and relied on appropriate assumptions and methodologies that are supported by substantial evidence. Thus, the City's experts disagree and no additions, revisions, or corrections to the Draft EIR are necessary.
- B-34 The commenter states that the Draft EIR's potential health risk impacts are incorrect since the Project's Health Risk Assessment (*Technical Appendix B2* of the Draft EIR) rely upon emissions estimates from a flawed air model. Refer to Response to Comment B-26 regarding the use of CalEEMod 2022.1. Thus, the City's experts disagree and no additions, revisions, or corrections to the Draft EIR are necessary.
- B-35 The commenter states that Draft EIR's operational Health Risk Assessment underestimates the Fraction of Time At Home ("FAH") values for the third trimester, infant, and child receptors. The Draft EIR and Project's Health Risk Assessment (*Technical Appendix B2* of the Draft EIR), includes a construction and operational HRA, including the total combined risk for Project construction and operation combined. Contrary to the commenter's assertion that this data was not presented. Additionally, the Project correctly evaluates risk based on the fraction of time at home (FAH) based on SCAQMD and OEHHA guidance as discussed and disclosed in the technical Appendix B1.

Further, the analysis was performed based on SCAQMD and CARB RMP guidelines, which recommend using 95<sup>th</sup> percentile breathing rates for the -0.3<2 age group and 80<sup>th</sup> percentile breathing rates for all other ages.

Per OEHHA's 2015 Risk Assessment Guidelines, an FAH 0.85 for 3<sup>rd</sup> trimester and 0<2 years and 0.72 for 2<16 years should be utilized, unless a school is located within the 1.0E-6 cancer risk isopleth, in which case 1.0 should be utilized. As there are no schools located within the 1.0E-6 cancer risk isopleth, FAH values of 0.85 and 0.72 were used for the 3<sup>rd</sup> Trimester/0<2 years and 2<16 years age groups, respectively (See Air Toxics Hot Spots Program Guidance Manual February 2015, Page 8-5).



The FAH value is utilized in risk assessments to estimate potential exposures to environmental hazards. The conservative approach of using 0.85 provides an additional safety margin by assuming that exposure to hazards is reduced due to time spent away from home. This approach aligns with the principle of protecting public health and minimizing potential risks. Assuming an FAH value of 1.0 may lead to unrealistic scenarios in risk assessments and policy development. It does not accurately reflect real-world conditions and could result in unnecessary burdens. By using 0.85, OEHHA strikes a balance between protective measures and practicality, ensuring that risk assessments are grounded in realistic assumptions. Thus, the City's experts disagree and no further response is required.

- B-36 The commenter states that Health Risk Assessment may fail to include Age Sensitivity Factors (“ASFs”). Refer to Response to Comment B-35 above regarding the Project’s methodology for calculating health risk analysis. Thus, the City’s experts disagree and no further response is required.
- B-37 The commenter summarizes the Project’s GHG emission impacts and asserts that the analysis is incorrect for three reasons which are discussed below under Response to Comment B-38 through B-40. Thus, the City’s experts disagree and no further response is required.
- B-38 The commenter states that the Project provides incorrect GHG analysis due to reliance on an outdated threshold and unsubstantiated air model. However, the commenter provides no substantial evidence of a significant environmental impact. The comment does not contain any information requiring further changes to the Draft EIR. Thus, the City’s experts disagree and no further response is required.

B-39 The commenter opines that the Draft EIR relies on an outdated GHG threshold (2020) and that the threshold should instead be based on a recommendation discussed at a 2010 SCAQMD working group meeting, which is documented in meeting notes as 3.0 metric tons of carbon dioxide equivalents per service population per year. The City and its experts disagree with the use of the commenter’s suggested service population threshold, primarily because it is not an adopted threshold whereas the threshold used in the Draft EIR is in fact adopted by the SCAAQMD and is a statistically sound threshold. The 3,000 MTCO<sub>2e</sub> per year threshold is based on a 90 percent emission “capture” rate methodology. Prior to its use by the SCAQMD, the 90 percent emissions capture approach was one of the options suggested by the California Air Pollution Control Officers Association (CAPCOA) in their CEQA and Climate Change white paper (2008). A 90 percent emission capture rate means that unmitigated GHG emissions from the top 90 percent of all GHG-producing projects within a geographic area – the SCAB in this instance – would be subject to a detailed analysis of potential environmental impacts from GHG emissions, while the bottom 10 percent of all GHG-producing projects would be excluded from detailed analysis. In setting the threshold at 3,000 MTCO<sub>2e</sub> per year, SCAQMD researched a database of projects kept by the Governor’s Office of Planning and Research (OPR). That database contained 798 projects, 87 of which were removed because they were very large projects and/or outliers that would skew emissions values too high, leaving 711 as the sample population to use in determining the 90th percentile capture rate. The SCAQMD



analysis of the 711 projects within the sample population combined commercial, residential, and mixed-use projects. It should be noted that the sample of projects included warehouses and other light industrial land uses but did not include industrial processes (i.e., oil refineries, heavy manufacturing, electric generating stations, mining operations, etc.). Emissions from each of these projects were calculated by SCAQMD to provide a consistent method of emissions calculations across the sample population and from projects within the sample population. In calculating the emissions, the SCAQMD analysis determined that the 90th percentile ranged between 2,983 to 3,143 MTCO<sub>2e</sub> per year. The SCAQMD set their significance threshold at the low-end value of the range when rounded to the nearest hundred tons of emissions (i.e., 3,000 MTCO<sub>2e</sub> per year) to define small projects that are considered less than significant and do not need to provide further analysis.

The City understands that the 3,000 MTCO<sub>2e</sub> per year threshold for residential/commercial uses was proposed by SCAQMD a decade ago and was adopted as an interim policy; however, no permanent, superseding policy or threshold has since been adopted. The 3,000 MTCO<sub>2e</sub> per year threshold was developed and recommended by SCAQMD, an expert agency, based on substantial evidence as provided in the Draft Guidance Document – Interim CEQA Greenhouse Gas Significance Threshold (2008) document and subsequent Working Group meetings (latest of which occurred in 2010). SCAQMD has not withdrawn its support of the interim threshold and all documentation supporting the interim threshold remains on the SCAQMD website on a page that provides guidance to CEQA practitioners for air quality analysis (and where all SCAQMD significance thresholds for regional and local criteria pollutants and toxic air contaminants also are listed). Further, as stated by SCAQMD, this threshold “uses the Executive Order S-3-05 goal [80 percent below 1990 levels by 2050] as the basis for deriving the screening level” and, thus, remains valid for use in 2022. Lastly, this threshold has been used for hundreds, if not thousands, of GHG analyses performed for projects located within the SCAQMD jurisdiction.<sup>2</sup>

- B-40 The commenter states that the Project would result in a significant GHG impact when the suggested SCAQMD 2035 3.0 metric tons threshold is applied. As provided above in Response to Comment B-39, the Project applied the appropriate and SCAQMD adopted GHG threshold. Therefore, the GHG analysis is accurate, and the Project would result in less than significant GHG impacts. The comment does not contain any information requiring further changes to the Draft EIR. Thus, the City’s experts disagree and no further response is required.
- B-41 The commenter recommends consideration of measures (identified below) found in the Department of Justice Warehouse Project Best Practices document be included in the Draft EIR. The commenter requests requiring off-road construction equipment to be hybrid electric-diesel or zero emission, where available, and all diesel-fueled off-road construction equipment to be equipped with CARB Tier IV-compliant engines or better. As concluded in Section 4.2, *Air Quality*, of the Draft EIR, emissions resulting from the Project construction will not exceed criteria pollutant thresholds established by the SCAQMD for emissions of any criteria pollutant

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<sup>2</sup> <https://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/ghg-significance-thresholds>



(Refer to Draft EIR p. 4.2-31). Thus, the City determines that additional mitigation is not warranted.

- B-42 The commenter requests prohibition of off-road diesel-powered equipment from being in the “on” position for more than 10 hours per day. As concluded in Section 4.2, *Air Quality*, of the Draft EIR, emissions resulting from the Project construction will not exceed criteria pollutant thresholds established by the SCAQMD for emissions of any criteria pollutant (Refer to Draft EIR p. 4.2-31). Thus, the City determines that additional mitigation is not warranted.
- B-43 The commenter requests to use electric-powered hand tools, forklifts, and pressure washers, and providing electrical hook ups to the power grid rather than use of diesel-fueled generators to supply their power. As concluded in Section 4.2, *Air Quality*, of the Draft EIR, Project operation-source emissions would not exceed the SCAQMD regional thresholds of significance for any criteria pollutants even when not taking into account of existing development emissions (Refer to Draft EIR pp. 4.2-31 to 4.2-32). Thus, the City determines that additional mitigation is not warranted.
- B-44 The commenter requests designation of an area in the construction site where electric-powered construction vehicles and equipment can charge. As concluded in Section 4.2, *Air Quality*, of the Draft EIR, emissions resulting from the Project construction will not exceed criteria pollutant thresholds established by the SCAQMD for emissions of any criteria pollutant (Refer to Draft EIR p. 4.2-31). Thus, the City determines that additional mitigation is not warranted.
- B-45 The commenter requests mitigation to limit the amount of daily grading disturbance area, but does not provide an exact quantity. The construction analysis included extremely conservative assumptions on the amount of acres that could be actively graded per day to provide a worst case analysis of air quality impacts. Additionally, limiting the amount of grading per day will not change the overall amount of grading required for the Project, which would result in the same overall impact. Therefore, the Draft EIR made reasonable assumptions based on equipment and schedule and disclosed the maximum emissions per day, therefore, no further mitigation is required.
- B-46 The commenter requests mitigation to prohibit grading on days with an Air Quality Index forecast of greater than 100 for particulates or ozone for the project area.

Table 4.2-10, *Localized Construction-Source Emissions Summary*, of the Draft EIR, identifies the localized impacts at the nearest receptor location in the vicinity of the Project. For analytical purposes, emissions associated with peak grading activities are considered for purposes of LSTs since these phases represents the maximum localized emissions that would occur. Any other construction phases of development that overlap would result in lesser emissions and consequently lesser impacts than what is disclosed herein. As shown, Project-related construction emissions would not exceed the applicable SCAQMD LSTs for CO, NO<sub>x</sub>, PM<sub>10</sub>, or PM<sub>2.5</sub> at the maximally impacted receptor location. All other modeled locations in the study area would experience a lesser concentration and consequently a lesser impact. Accordingly,



construction of the Project would not result in the exposure of any sensitive receptors to substantial pollutant concentrations. Therefore, localized emissions from construction of the Project would result in less than significant impacts.

Furthermore, the land use with the greatest potential exposure to Project construction DPM source emissions is Location R6 which is located approximately 8,840 feet northwest of the Project Site at an existing residence located at 11210 Fourth Street on the opposite side of I-10 and SR-60 from the Project Site. Since there are no private outdoor living areas (backyards) facing the Project Site, receptor R6 is placed at the building façade facing the Project Site. At the maximally exposed individual receptor (MEIR), the maximum incremental cancer risk attributable to Project construction DPM source emissions is estimated at <0.01 in one million, which is less than the SCAQMD's significance threshold of 10 in one million. At this same location, non-cancer risks were estimated to be (Refer to Draft EIR p. 4.2-35).

Lastly, with respect to the request to limit activities if the Air Quality Index (AQI) exceeds 100, it should be noted that pursuant to EPA documentation, an AQI of over 100 is generally correlated when the ambient air quality standards are exceeded. Further, AQI is monitored at a regional level and not necessarily representative of local conditions that would occur adjacent to the Project site – which is important for determining local construction impacts. As noted above, the Project does not exceed any of the applicable ambient air quality standards during construction activity as evidenced by the modeling conducted in support of the LST analysis. Because the Project would not result in a significant health risk to sensitive receptors during construction, there is no need to limit grading activities. Thus, the City determines that additional mitigation is not warranted.

- B-47 The commenter requests mitigation to forbid idling of heavy equipment for more than three minutes. As discussed in Section 4.4, *Energy*, of the Draft EIR, CCR Title 13, Title 13, Motor Vehicles, Section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment or potential additional pollutants generated by starting equipment as opposed to idling. Best Available Control Measure (BACMs) inform construction equipment operators of this requirement. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints (Refer to Draft EIR p. 4.4-5). Thus, the City determines that additional mitigation is not warranted.
- B-48 The commenter requests that the contractor keep a record of all equipment maintenance and data sheets, including design specifications and emission control tier classifications; and furnish such list to the lead agency or other regulators upon request. As concluded in Section 4.2, *Air Quality*, of the Draft EIR, Project operation-source emissions would not exceed the SCAQMD regional thresholds of significance for any criteria pollutants even when not taking into account of existing development emissions (refer to Draft EIR pp. 4.2-31 to 4.2-32). Thus, the City determines that additional mitigation is not warranted.



- B-49 The commenter requests the requirement of on-site inspections to verify compliance with construction mitigation and to identify other opportunities to further reduce construction impacts. As concluded in Section 4.2, *Air Quality*, of the Draft EIR, emissions resulting from the Project construction will not exceed criteria pollutant thresholds established by the SCAQMD for emissions of any criteria pollutant (refer to Draft EIR p. 4.2-31). Thus, the City determines that additional mitigation is not warranted.
- B-50 The commenter requests to use paints, architectural coatings, and industrial maintenance coatings that have volatile organic compound levels of less than 10 g/L. The Project would be required to comply with SCAQMD Rule 1113, which serves to limit the volatile organic compounds (VOC) content of architectural coatings used on projects in the SCAQMD. Any person who supplies, sells, offers for sale, or manufactures any architectural coating for use on projects. Thus, the City determines that additional mitigation is not warranted.
- B-51 The commenter requests to provide information on transit and ridesharing programs and services to construction employees. As concluded in Section 4.2, *Air Quality*, of the Draft EIR, Project operation-source emissions would not exceed the SCAQMD regional thresholds of significance for any criteria pollutants even when not taking into account of existing development emissions (Refer to Draft EIR pp. 4.2-31 to 4.2-32). Thus, the City determines that additional mitigation is not warranted.
- B-52 The commenter requests the provision of meal options onsite or of shuttles between the facility and nearby meal destinations for construction employees. As concluded in Section 4.2, *Air Quality*, of the Draft EIR, Project operation-source emissions would not exceed the SCAQMD regional thresholds of significance for any criteria pollutants even when not taking into account of existing development emissions (Refer to Draft EIR pp. 4.2-31 to 4.2-32). Thus, the City determines that additional mitigation is not warranted.
- B-53 The commenter suggests requiring that all heavy-duty vehicles engaged in drayage to or from the project site to be zero emission beginning in 2030. As discussed further below, there are several economic and infrastructure constraints that make the suggested mitigation measure infeasible today and likely well into the future. The first major issue that makes requiring all trucks accessing the Project site to be zero-emissions infeasible, is that there is not enough electrical grid power to sustainably charge these trucks. For example, one trucking company tried to electrify just 30 trucks at a terminal in Joliet, Illinois. Shortly after this plan began, local officials shut it down, commenting that it would draw more electricity than is needed to power the entire city.<sup>3</sup> Even more relevant, a California company attempted to electrify 12 forklifts, which require significantly less power than trucks.<sup>4</sup> Local power utilities told the California company that it was not possible.<sup>5</sup> In a May 2023 report by Resources for the Future, titled “Medium- and Heavy-Duty Vehicle Electrification: Challenges, Policy Solutions, and

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<sup>3</sup> <https://www.trucking.org/news-insights/heavy-dose-reality-electric-truck-mandates>

<sup>4</sup> *Id.*

<sup>5</sup> *Id.*





Open Research Questions,” the report states that medium- and heavy-duty electric vehicle (MHDEV) charging (which may exceed several MWs of demand for large fleets) could destabilize electricity distribution systems.<sup>6</sup> Therefore, significant investments into the grid, transmission system, and generation capacity is required.<sup>7</sup> If the Project requires each and every truck entering the facility to be zero-emissions, doing so would put a significant strain on California’s power grid; and a strain that the grid cannot handle in the short-term, must less sustain in the long run.

Not only can local and state electrical infrastructure not sustain fully electric trucks, the logistical and operational barriers of using such trucks is also extremely prohibitive. To gain widespread use, MHDEVs must be comparable to diesel vehicles in model options, range, recharge time, payloads, and maintenance.<sup>8</sup> However, MHDEVs generally have ranges below 200 miles, versus more than 1,000 miles for diesel vehicles.<sup>9</sup> Additionally recharge times are substantially longer than diesel refueling. For example, a clean diesel truck can spend 15 minutes fueling anywhere in the country and then travel about 1,200 miles before fueling again.<sup>10</sup> In contrast, today’s long-haul battery electric trucks have a range of about 150-330 miles and can take up to 10 hours to charge.<sup>11</sup>

Moreover, fleets without a charging depot will need to rely on public charging stations. Unfortunately, significant investment must first be made before widespread public charging is feasible.<sup>12</sup> Lastly, weight of MHDEVs is also a significant issue that will lead to increased operational barriers. Battery-electric trucks, which run on two approximately 8,000 pound lithium ion batteries, are far heavier than clean diesel trucks.<sup>13</sup> Because trucks are subject to strict federal and state weight limits, as seen by weighing stations throughout California and the United States, requiring zero-emission battery electric trucks will significantly decrease the payload of each truck, thus requiring more trucks to be on the road and increasing both traffic congestion and tailpipe emissions.<sup>14</sup>

Finally, if the above challenges were not enough, there is a significant constraint in sourcing enough raw minerals needed to produce the lithium-ion batteries uses in zero-emission trucks. For example, tens of millions of tons of cobalt, graphite, lithium, and nickel will need to be produced.<sup>15</sup> It is estimated that it could take up to 35 years to acquire all the minerals needed to generate enough truck batteries for current levels of global production.<sup>16</sup> Additionally,

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<sup>6</sup> [https://media.rff.org/documents/Report\\_23-03\\_v3.pdf](https://media.rff.org/documents/Report_23-03_v3.pdf).

<sup>7</sup> *Id.*

<sup>8</sup> *Id.*

<sup>9</sup> *Id.*

<sup>10</sup> <https://www.trucking.org/news-insights/heavy-dose-reality-electric-truck-mandates>

<sup>11</sup> *Id.*

<sup>12</sup> [https://media.rff.org/documents/Report\\_23-03\\_v3.pdf](https://media.rff.org/documents/Report_23-03_v3.pdf).

<sup>13</sup> <https://www.trucking.org/news-insights/heavy-dose-reality-electric-truck-mandates>

<sup>14</sup> *Id.*

<sup>15</sup> <https://www.trucking.org/news-insights/heavy-dose-reality-electric-truck-mandates>

<sup>16</sup> *Id.*



expanding capacity and sourcing this amount of material creates massive environmental effects, that in some respects could exceed the emissions of current clean-diesel trucks.<sup>17</sup>

An EIR must describe feasible measures that could minimize the project's significant adverse impacts. 14 Cal Code Regs §15126.4(a)(1). An EIR may decline to propose a mitigation measure that would not effectively address a significant impact. An EIR also need not identify and discuss mitigation measures that are infeasible. Nor must an EIR analyze in detail mitigation measures it concludes are infeasible.

Further, SCAQMD recently adopted a Warehouse Indirect Source Rule, Rule 2305, in May 2021. Rule 2305 applies to warehouse operators and owners of warehouses greater than or equal to 100,000 square feet of indoor floor space within a single building that may be used for warehousing activities. The Project includes the development of 270,337 sf speculative warehouse and office building and would be subject to compliance with Rule 2305. Since the proposed Project will not be operated by the current owner, it is not feasible to commit to specific provisions of Rule 2305; however, future tenants will be obligated to comply with its provisions. In general, the Rule establishes the Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program, which is a points system that is based upon the actual number of trucks that come to and leave the warehouse. Each year the operator will be obligated to determine how many points the warehouse is required to achieve using a formula set out in the Rule. If the required number of points are not achieved, the warehouse operator would be required to pay a fee to the SCAQMD, which would use collected funds to improve air quality. Although compliance with Rule 2305 is not mitigation and the SCAQMD has not published a nexus study showing how the use of collected funds has nexus to the warehouse's air quality impacts, the program is intended to reduce air quality effects associated with the warehouse industry, including the Project, throughout the Air Basin. Compliance with Rule 2305 would reduce air quality effects associated with the warehouse industry, including the Project, throughout the air basin, although quantification of such reductions is not feasible at this time. Thus, the City determines that additional mitigation is not warranted.

- B-54 The commenter requests to require all on-site motorized operational equipment, such as forklifts and yard trucks, to be zero-emission with the necessary charging or fueling stations provided. As concluded in Section 4.2, *Air Quality*, of the Draft EIR, Project operation-source emissions would not exceed the SCAQMD regional thresholds of significance for any criteria pollutants even when not taking into account of existing development emissions (Refer to Draft EIR pp. 4.2-31 to 4.2-32). Thus, the City determines that additional mitigation is not warranted.
- B-55 The commenter requests mitigation to require tenants to use zero-emission light- and medium-duty vehicles as part of business operations. Refer to response to Comment B-53 regarding the feasibility of using zero-emission vehicles.

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<sup>17</sup> *Id.*



- B-56 The commenter requests mitigation to forbid trucks from idling for more than three minutes and requiring operators to turn off engines when not in use. The Project shall comply with California Code of Regulations Title 13, Division 3, Chapter 10, Article 1, Section 2485, “Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling, limits nonessential idling to five minutes or less for commercial trucks. Thus, the City determines that additional mitigation is not warranted.
- B-57 The commenter requests to post both interior- and exterior-facing signs, including signs directed at all dock and delivery areas, identifying idling restrictions and contact information to report violations to CARB, the local air district, and the building manager. As concluded in Section 4.2, *Air Quality*, of the Draft EIR, Project operation-source emissions would not exceed the SCAQMD regional thresholds of significance for any criteria pollutants even when not taking into account of existing development emissions (Refer to Draft EIR pp. 4.2-31 to 4.2-32). Thus, the City determines that additional mitigation is not warranted.
- B-58 The commenter requests installation of solar photovoltaic systems on the project site of a specified electrical generation capacity that is equal to or greater than the building’s projected energy needs, including all electrical chargers. As concluded in Section 4.2, *Air Quality*, of the Draft EIR, Project operation-source emissions would not exceed the SCAQMD regional thresholds of significance for any criteria pollutants even when not taking into account of existing development emissions (Refer to Draft EIR pp. 4.2-31 to 4.2-32). Thus, the City determines that additional mitigation is not warranted.
- B-59 The commenter request to design all project building roofs to accommodate the maximum future coverage of solar panels and installing the maximum solar power generation capacity feasible. As concluded in Section 4.2, *Air Quality*, of the Draft EIR, Project operation-source emissions would not exceed the SCAQMD regional thresholds of significance for any criteria pollutants even when not taking into account of existing development emissions (Refer to Draft EIR pp. 4.2-31 to 4.2-32). Thus, the City determines that additional mitigation is not warranted.
- B-60 The commenter requests that the Project construct zero-emission truck charging/fueling stations proportional to the number of dock doors at the project. As stated in response to Comment B-53 requiring zero-emission vehicles is currently technologically infeasible; also, such vehicles are not available on a large enough scale to be relied upon. Therefore, the current technology required for EV truck charging stations is unknown and technologically infeasible. Thus, the City determines that additional mitigation is not warranted.
- B-61 The commenter requests that the Project run conduit to designated locations for future electric truck charging stations. As concluded in Section 4.2, *Air Quality*, of the Draft EIR, Project operation-source emissions would not exceed the SCAQMD regional thresholds of significance for any criteria pollutants even when not taking into account of existing development emissions (Refer to Draft EIR pp. 4.2-31 to 4.2-32). Thus, the City determines that additional mitigation is not warranted.



- B-62 The commenter request that unless the owner of the facility records a covenant on the title of the underlying property ensuring that the property cannot be used to provide refrigerated warehouse space, constructing electric plugs for electric transport refrigeration units at every dock door and requiring truck operators with transport refrigeration units to use the electric plugs when at loading docks. As concluded in Section 4.2, *Air Quality*, of the Draft EIR, Project operation-source emissions would not exceed the SCAQMD regional thresholds of significance for any criteria pollutants even when not taking into account of existing development emissions (Refer to Draft EIR pp. 4.2-31 to 4.2-32). Thus, the City determines that additional mitigation is not warranted.
- B-63 The commenter requests mitigation to oversize electrical rooms by 25 percent or providing a secondary electrical room to accommodate future expansion of electric vehicle charging capability. As concluded in Section 4.2, *Air Quality*, of the Draft EIR, Project operation-source emissions would not exceed the SCAQMD regional thresholds of significance for any criteria pollutants even when not taking into account of existing development emissions (Refer to Draft EIR pp. 4.2-31 to 4.2-32). Thus, the City determines that additional mitigation is not warranted.
- B-64 The commenter requests the Project construct and maintain electric light-duty vehicle charging stations proportional to the number of employee parking spaces (for example, requiring at least 10% of all employee parking spaces to be equipped with electric vehicle charging stations of at least Level 2 charging performance). As concluded in Section 4.2, *Air Quality*, of the Draft EIR, Project operation-source emissions would not exceed the SCAQMD regional thresholds of significance for any criteria pollutants even when not taking into account of existing development emissions (Refer to Draft EIR pp. 4.2-31 to 4.2-32). Additionally, of the 251 on-site passenger vehicle spaces, 25 would be designated as electric vehicle parking stalls (Refer to Draft EIR p. 3-6). Thus, the City determines that additional mitigation is not warranted.
- B-65 The commenter requests the Project run conduit to an additional proportion of employee parking spaces for a future increase in the number of electric light-duty charging stations. As concluded in Section 4.2, *Air Quality*, of the Draft EIR, Project operation-source emissions would not exceed the SCAQMD regional thresholds of significance for any criteria pollutants even when not taking into account of existing development emissions (Refer to Draft EIR pp. 4.2-31 to 4.2-32). Thus, the City determines that additional mitigation is not warranted.
- B-66 The commenter requests the installation and maintenance, at the manufacturer's recommended maintenance intervals, of air filtration systems at sensitive receptors within a certain radius of facility for the life of the project. As discussed in Section 4.2, *Air Quality*, of the Draft EIR, the nearest maximally exposed individual receptor to the Project site is Location R6 which is located approximately 8,840 feet northwest of the Project Site at an existing residence located at 11210 Fourth Street on the opposite side of I-15 and I-10 from the Project Site. As concluded in Table 4.2-10, *Localized Construction-Source Emissions Summary*, construction of the Project would not result in the exposure of any sensitive receptors to substantial pollutant concentrations (refer to Draft EIR p. 4.2-33). Similarly, Table 4.2-11, *Localized Operational-Source Emissions Summary*, concluded that operational emissions would not exceed the



SCAQMD's localized significant thresholds at the maximally impacted receptor location. (refer to Draft EIR p. 4.2-34). Thus, the City determines that additional mitigation is not warranted.

- B-67 The commenter requests the installation and maintenance, at the manufacturer's recommended maintenance intervals, an air monitoring station proximate to sensitive receptors and the facility for the life of the project, and making the resulting data publicly available in real time. As stated above in response to Comment B-66, the Project would not result in significant air quality related health risk impacts during construction or operation, therefore additional mitigation is not warranted.
- B-68 The commenter requests mitigation to require all stand-by emergency generators to be powered by a non-diesel fuel. Emergency generators would only be used in emergency power failure or for routine testing and maintenance. Such intermittent use would not a substantial amount of emissions, since by the very nature of the activity, it would be short-term, intermittent, and infrequent. Requiring that emergency generators to be powered by non-diesel fuel would not result in a significant reduction in air quality emission impacts. Thus, the City determines that additional mitigation is not warranted.
- B-69 The commenter requests facility operators to train managers and employees on efficient scheduling and load management to eliminate unnecessary queuing and idling of trucks. Refer to response to Comment B-56 for a detailed discussion on idling of trucks and response to Comment B-74 regarding directional signs to truck routes. Thus, the City determines that additional mitigation is not warranted.
- B-70 The commenter requests mitigation to establish and promote a rideshare program that discourages single occupancy vehicle trips and provides financial incentives for alternate modes of transportation, including carpooling, public transit, and biking. As concluded in Section 4.2, *Air Quality*, of the Draft EIR, Project operation-source emissions would not exceed the SCAQMD regional thresholds of significance for any criteria pollutants even when not taking into account of existing development emissions (Refer to Draft EIR pp. 4.2-31 to 4.2-32). Thus, the City determines that additional mitigation is not warranted.
- B-71 The commenter requests Project buildings meet CalGreen Tier 2 green building standards, including all provisions related to designated parking for clean air vehicles, electric vehicle charging, and bicycle parking. As concluded in Section 4.2, *Air Quality*, of the Draft EIR, Project operation-source emissions would not exceed the SCAQMD regional thresholds of significance for any criteria pollutants even when not taking into account of existing development emissions (Refer to Draft EIR pp. 4.2-31 to 4.2-32). Additionally, of the 251 on-site passenger vehicle spaces, 25 would be designated as electric vehicle parking stalls. Bike racks would also be provided near the building entrances and adjacent to the electrical room (Refer to Draft EIR p. 3-6). Thus, the City determines that additional mitigation is not warranted.



- B-72 The commenter requests the Project design buildings to LEED green building certification standards. As discussed in Section 3.0, *Project Description*, of the Draft EIR, the Project building would be conditioned by the City of Ontario to achieve LEED standards (Refer to Draft EIR p. 3-2). Thus, the City determines that additional mitigation is not warranted.
- B-73 The commenter requests mitigation requiring meal options onsite or shuttles between the facility and nearby meal destinations. As concluded in Section 4.2, *Air Quality*, of the Draft EIR, Project operation-source emissions would not exceed the SCAQMD regional thresholds of significance for any criteria pollutants even when not taking into account of existing development emissions (Refer to Draft EIR pp. 4.2-31 to 4.2-32). Thus, the City determines that additional mitigation is not warranted.
- B-74 The commenter requests mitigation to post signs at every truck exit driveway providing directional information to the truck route. As concluded in Section 4.2, *Air Quality*, of the Draft EIR, Project operation-source emissions would not exceed the SCAQMD regional thresholds of significance for any criteria pollutants even when not taking into account of existing development emissions (Refer to Draft EIR pp. 4.2-31 to 4.2-32). Thus, the City determines that additional mitigation is not warranted.
- B-75 The commenter requests that the Project Applicant improve and maintain vegetation and tree canopy for residents in and around the project area in order to reduce air quality and GHG emissions. Improving and maintaining vegetation and the tree canopy for residents in and around the Project site would not have any effect on reducing the Project's air quality and GHG emissions. Therefore, this measure is not warranted. However, the Project would provide extensive landscape on the Project site. As depicted on Figure 3-6, *Proposed Landscape Plan*, the Project would include 72,527 (12.72%) square feet of landscaping. Thus, the City determines that additional mitigation is not warranted.
- B-76 The commenter requests that the Project Applicant require that every tenant (1) train its staff in charge of keeping vehicle records in diesel technologies and compliance with CARB regulations, by attending CARB-approved courses; and (2) require facility operators to maintain records on-site demonstrating compliance and make records available for inspection by the local jurisdiction, air district, and state upon request. The Project would be subject to compliance with SCAQMD Rule 2305. As part of Rule 2305, facilities would be required to report information about facility operations to SCAQMD each year and recordkeeping of onsite operations. Therefore, the City determines that additional mitigation is not warranted.
- B-77 The commenter requests that the Project Applicant require tenants to enroll in the United States Environmental Protection Agency's SmartWay program, and requiring tenants who own, operate, or hire trucking carriers with more than 100 trucks to use carriers that are SmartWay carriers. The US EPA SmartWay Program is a voluntary public-private program. The Project Applicant or City cannot control the types of trucks coming to the Project site. Because building occupants/tenants are not yet identified, it is highly speculative to assume that the building occupants/tenants will own or control a fleet of trucks. The large majority of warehouses are



served by contracted trucking companies and independent drivers and the building occupant/tenant may have no control over the truck engine type, in which case the building occupant/tenant would need to comply with Rule 2305's requirements through a suite of equivalent measures or payment of the required fee to reduce Air Quality impacts as required by the Rule. Thus, the City determines that additional mitigation is not warranted.

- B-78 The commenter requests to provide tenants with information on incentive programs, such as the Carl Moyer Program and Voucher Incentive Program, to upgrade their fleets. As concluded in Section 4.2, *Air Quality*, of the Draft EIR, Project operation-source emissions would not exceed the SCAQMD regional thresholds of significance for any criteria pollutants even when not taking into account of existing development emissions (Refer to Draft EIR pp. 4.2-31 to 4.2-32). Thus, the City determines that additional mitigation is not warranted.
- B-79 The commenter makes a concluding, conclusory comment that the suggested mitigation measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently, reduce emissions released during Project construction and operation. Refer to response to Comments B-41 to B-78 for a detailed discussion on the suggested mitigation measures.

The commenter also emphasizes the applicability of incorporating solar power system into the Project design as it is policy of the State that eligible renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers by December 31, 2045. Refer to response to Comment B-58 related to solar photovoltaic systems onsite. Thus, no further response is required.

- B-80 The commenter states that a revised Draft EIR should be prepared to include all feasible mitigation measures and include updated air quality analysis to ensure that the necessary mitigation measures are implemented to reduce emissions to below thresholds. Refer to response to Comments B-41 to B-78 for a detailed discussion on the suggested mitigation measures. Applicable mitigation measures have been incorporated to the Project at the commenter's request.
- B-81 The commenter provides disclaimer remarks about the comment letter. This comment does not raise any issues concerning or relating to the adequacy of the environmental analysis provided in the Draft EIR and thus no further response is required.



**5355 East Airport Drive Project  
Final Environmental Impact Report**

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## SECTION 3.0 CLARIFICATIONS AND REVISIONS

Corrections to the Draft Environmental Impact Report (EIR) text generated either from responses to comments or independently by the City, are stated in this section of the Final EIR. The information included in this section does not constitute substantial new information that requires recirculation of the Draft EIR. Section 15088.5 of the State CEQA Guidelines states in part:

- (a) *A lead agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review under Section 15087 but before certification. As used in this section, the term “information” can include changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not “significant” unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project’s proponents have declined to implement. “Significant new information” requiring recirculation includes, for example, a disclosure showing that:*
- (1) *A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.*
  - (2) *A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.*
  - (3) *A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project’s proponents decline to adopt it.*
  - (4) *The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.*
- (b) *Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR.*

None of the information contained in this section constitutes significant new information or changes to the analysis or conclusions of the Draft EIR. There were no new significant environmental impacts identified following circulation of the Draft EIR. Likewise, there were no substantial increases in the severity of environmental impacts identified after circulation of the Draft EIR. Therefore, recirculation of the Draft EIR is not required because no new information was added to the EIR.



## CLARIFICATIONS AND REVISIONS TO THE DRAFT EIR

This section includes recommended clarifications and revisions to the Draft EIR. This section is organized by respective sections of the Draft EIR. Deleted text is shown as ~~strikeout~~ and new text is underlined.

### Section 4.1.2

1. Page 4-2 is hereby modified in response to Comment A-13.

~~The summary of projections approach is used in this EIR, except for the evaluation of cumulative transportation effects (for purposes of demonstrating General Plan policy compliance) and vehicular related air quality, greenhouse gas, and noise impacts, for which the analysis combines the summary of projections approach with the manual addition of past, present, and reasonably foreseeable projects (“combined approach”). The City determined the combined approach to be appropriate because long range planning documents contain a sufficient amount of information to enable an analysis of cumulative effect for all subject areas, with the exception of transportation (and vehicular related air quality, greenhouse gas, and noise effects), which requires a greater level of detailed study. With the combined approach, the cumulative impact analyses for the air quality, greenhouse gas, noise, and transportation issue areas overstate the Project’s potential cumulatively considerable impacts relative to analyses that rely solely on the list of projects approach or solely on the summary of projections approach; therefore, the combined approach provides a conservative, “worst case” analysis for the Project’s cumulative air quality, greenhouse gas, noise, and transportation impacts.~~

~~For the cumulative impact analyses that rely on the summary projections approach (i.e., all issue areas with the exception of transportation and vehicular related air quality, greenhouse gas, and noise—as described above),~~ The cumulative study area primarily includes the City of Ontario, City of Fontana, City of Upland, City of Chino, City of Rancho Cucamonga, City of Jurupa Valley, and small portions of unincorporated San Bernardino County. These jurisdictions encompass the southwestern area of San Bernardino County and nearby portion of Riverside County and have similar environmental characteristics as the Project area.

Attachment A: Updated Construction Schedule  
Attachment B: Updated CalEEMod Output Files  
Attachment C: Matt Hagemann CV  
Attachment D: Paul Rosenfeld CV

Construction Schedule Calculations					
Phase	Default Phase Length	Construction Duration	%	Construction Duration	Revised Phase Length
Demolition	20	559	0.0358	351	13
Site Preparation	10	559	0.0179	351	6
Grading	30	559	0.0537	351	19
Construction	300	559	0.5367	351	188
Paving	20	559	0.0358	351	13
Architectural Coating	20	559	0.0358	351	13

	Total Default Construction Duration	Revised Construction Duration
Start Date	5/2/2023	5/2/2023
End Date	11/11/2024	4/17/2024
Total Days	559	351

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**IE Distribution Center #14 (Construction)**

**San Bernardino-South Coast County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	243.00	1000sqft	7.08	243,303.00	0
Refrigerated Warehouse-No Rail	27.00	1000sqft	0.79	27,000.00	0
Parking Lot	299.00	Space	1.53	119,600.00	0
Other Asphalt Surfaces	161.00	1000sqft	3.68	161,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	32
<b>Climate Zone</b>	10			<b>Operational Year</b>	2025
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	390.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - Consistent with DEIR's model.

Land Use - Consistent with DEIR's model.

Construction Phase - See SWAPE comment on "Unsubstantiated Changes to Individual Construction Phase Lengths"

Grading - Consistent with DEIR's model.

Trips and VMT - Consistent with DEIR's model.

Architectural Coating - See SWAPE Comment on "Unsubstantiated Changes to Architectural Coating Emission Factors"

Construction Off-road Equipment Mitigation - See SWAPE comment on "Incorrect Application of Tier 4 Interim Mitigation"

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
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tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	300.00	188.00
tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	30.00	19.00
tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	10.00	6.00
tblConstructionPhase	PhaseEndDate	11/11/2024	4/17/2024
tblConstructionPhase	PhaseEndDate	9/16/2024	3/12/2024
tblConstructionPhase	PhaseEndDate	5/29/2023	5/18/2023
tblConstructionPhase	PhaseEndDate	7/24/2023	6/22/2023
tblConstructionPhase	PhaseEndDate	10/14/2024	3/29/2024
tblConstructionPhase	PhaseEndDate	6/12/2023	5/26/2023
tblConstructionPhase	PhaseStartDate	10/15/2024	3/30/2024
tblConstructionPhase	PhaseStartDate	7/25/2023	6/23/2023
tblConstructionPhase	PhaseStartDate	6/13/2023	5/27/2023
tblConstructionPhase	PhaseStartDate	9/17/2024	3/13/2024
tblConstructionPhase	PhaseStartDate	5/30/2023	5/19/2023
tblLandUse	LandUseSquareFeet	243,000.00	243,303.00
tblLandUse	LotAcreage	5.58	7.08
tblLandUse	LotAcreage	0.62	0.79
tblLandUse	LotAcreage	2.69	1.53
tblLandUse	LotAcreage	3.70	3.68
tblTripsAndVMT	HaulingTripNumber	0.00	3.00
tblTripsAndVMT	HaulingTripNumber	0.00	38.00
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripLength	6.90	10.20

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tbITripsAndVMT	VendorTripLength	6.90	10.20
tbITripsAndVMT	VendorTripNumber	0.00	5.00
tbITripsAndVMT	VendorTripNumber	0.00	5.00
tbITripsAndVMT	VendorTripNumber	90.00	25.00
tbITripsAndVMT	WorkerTripLength	14.70	18.50
tbITripsAndVMT	WorkerTripLength	14.70	18.50
tbITripsAndVMT	WorkerTripLength	14.70	18.50
tbITripsAndVMT	WorkerTripLength	14.70	18.50
tbITripsAndVMT	WorkerTripLength	14.70	18.50
tbITripsAndVMT	WorkerTripLength	14.70	18.50
tbITripsAndVMT	WorkerTripLength	14.70	18.50
tbITripsAndVMT	WorkerTripNumber	15.00	18.00
tbITripsAndVMT	WorkerTripNumber	231.00	114.00
tbITripsAndVMT	WorkerTripNumber	46.00	23.00

**2.0 Emissions Summary**

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IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1964	1.6412	1.9050	4.1900e-003	0.2751	0.0727	0.3478	0.0996	0.0679	0.1675	0.0000	373.7245	373.7245	0.0669	8.9100e-003	378.0538
2024	1.3575	0.4600	0.6562	1.3900e-003	0.0504	0.0199	0.0702	0.0135	0.0186	0.0321	0.0000	124.6714	124.6714	0.0197	3.1800e-003	126.1120
<b>Maximum</b>	<b>1.3575</b>	<b>1.6412</b>	<b>1.9050</b>	<b>4.1900e-003</b>	<b>0.2751</b>	<b>0.0727</b>	<b>0.3478</b>	<b>0.0996</b>	<b>0.0679</b>	<b>0.1675</b>	<b>0.0000</b>	<b>373.7245</b>	<b>373.7245</b>	<b>0.0669</b>	<b>8.9100e-003</b>	<b>378.0538</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1377	2.5149	2.1450	4.1900e-003	0.2751	0.0841	0.3592	0.0996	0.0841	0.1836	0.0000	373.7242	373.7242	0.0669	8.9100e-003	378.0535
2024	1.3465	0.7991	0.7181	1.3900e-003	0.0504	0.0289	0.0793	0.0135	0.0289	0.0424	0.0000	124.6713	124.6713	0.0197	3.1800e-003	126.1119
<b>Maximum</b>	<b>1.3465</b>	<b>2.5149</b>	<b>2.1450</b>	<b>4.1900e-003</b>	<b>0.2751</b>	<b>0.0841</b>	<b>0.3592</b>	<b>0.0996</b>	<b>0.0841</b>	<b>0.1836</b>	<b>0.0000</b>	<b>373.7242</b>	<b>373.7242</b>	<b>0.0669</b>	<b>8.9100e-003</b>	<b>378.0535</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	4.48	-57.72	-11.79	0.00	0.00	-22.19	-4.92	0.00	-30.49	-13.21	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	5-2-2023	8-1-2023	0.8599	1.2059
2	8-2-2023	11-1-2023	0.5912	0.8764
3	11-2-2023	2-1-2024	0.5800	0.8771
4	2-2-2024	5-1-2024	1.6719	1.8820
		Highest	1.6719	1.8820

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.1249	8.0000e-005	9.2900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0181	0.0181	5.0000e-005	0.0000	0.0193
Energy	0.0102	0.0924	0.0777	5.5000e-004		7.0300e-003	7.0300e-003		7.0300e-003	7.0300e-003	0.0000	398.9265	398.9265	0.0271	4.9000e-003	401.0633
Mobile	0.2689	0.4550	3.0211	7.1300e-003	0.7757	5.6400e-003	0.7814	0.2072	5.2800e-003	0.2125	0.0000	675.3712	675.3712	0.0350	0.0320	685.7892
Waste						0.0000	0.0000		0.0000	0.0000	51.5191	0.0000	51.5191	3.0447	0.0000	127.6364
Water						0.0000	0.0000		0.0000	0.0000	19.8085	144.1817	163.9902	2.0467	0.0495	229.9130
<b>Total</b>	<b>1.4040</b>	<b>0.5475</b>	<b>3.1080</b>	<b>7.6800e-003</b>	<b>0.7757</b>	<b>0.0127</b>	<b>0.7884</b>	<b>0.2072</b>	<b>0.0123</b>	<b>0.2195</b>	<b>71.3277</b>	<b>1,218.4975</b>	<b>1,289.8251</b>	<b>5.1535</b>	<b>0.0864</b>	<b>1,444.4212</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.1249	8.0000e-005	9.2900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0181	0.0181	5.0000e-005	0.0000	0.0193
Energy	0.0102	0.0924	0.0777	5.5000e-004		7.0300e-003	7.0300e-003		7.0300e-003	7.0300e-003	0.0000	398.9265	398.9265	0.0271	4.9000e-003	401.0633
Mobile	0.2689	0.4550	3.0211	7.1300e-003	0.7757	5.6400e-003	0.7814	0.2072	5.2800e-003	0.2125	0.0000	675.3712	675.3712	0.0350	0.0320	685.7892
Waste						0.0000	0.0000		0.0000	0.0000	51.5191	0.0000	51.5191	3.0447	0.0000	127.6364
Water						0.0000	0.0000		0.0000	0.0000	19.8085	144.1817	163.9902	2.0467	0.0495	229.9130
<b>Total</b>	<b>1.4040</b>	<b>0.5475</b>	<b>3.1080</b>	<b>7.6800e-003</b>	<b>0.7757</b>	<b>0.0127</b>	<b>0.7884</b>	<b>0.2072</b>	<b>0.0123</b>	<b>0.2195</b>	<b>71.3277</b>	<b>1,218.4975</b>	<b>1,289.8251</b>	<b>5.1535</b>	<b>0.0864</b>	<b>1,444.4212</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/2/2023	5/18/2023	5	13	
2	Site Preparation	Site Preparation	5/19/2023	5/26/2023	5	6	
3	Grading	Grading	5/27/2023	6/22/2023	5	19	

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

4	Building Construction	Building Construction	6/23/2023	3/12/2024	5	188
5	Paving	Paving	3/13/2024	3/29/2024	5	13
6	Architectural Coating	Architectural Coating	3/30/2024	4/17/2024	5	13

**Acres of Grading (Site Preparation Phase): 9**

**Acres of Grading (Grading Phase): 57**

**Acres of Paving: 5.21**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 405,455; Non-Residential Outdoor: 135,152; Striped Parking Area: 16,836 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	231	0.29
Demolition	Excavators	3	8.00	158	0.38
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	18.00	0.00	3.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	5.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	5.00	38.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	114.00	25.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

**3.2 Demolition - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0148	0.1397	0.1277	2.5000e-004	6.4800e-003	6.4800e-003		6.0300e-003	6.0300e-003		0.0000	22.0948	22.0948	6.1900e-003	0.0000	22.2495
<b>Total</b>	<b>0.0148</b>	<b>0.1397</b>	<b>0.1277</b>	<b>2.5000e-004</b>	<b>6.4800e-003</b>	<b>6.4800e-003</b>		<b>6.0300e-003</b>	<b>6.0300e-003</b>		<b>0.0000</b>	<b>22.0948</b>	<b>22.0948</b>	<b>6.1900e-003</b>	<b>0.0000</b>	<b>22.2495</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Demolition - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.7000e-004	5.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0834	0.0834	0.0000	1.0000e-005	0.0874
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	3.7000e-004	4.6300e-003	1.0000e-005	1.6100e-003	1.0000e-005	1.6200e-003	4.3000e-004	1.0000e-005	4.4000e-004	0.0000	1.2556	1.2556	3.0000e-005	3.0000e-005	1.2660
<b>Total</b>	<b>4.7000e-004</b>	<b>5.4000e-004</b>	<b>4.6800e-003</b>	<b>1.0000e-005</b>	<b>1.6400e-003</b>	<b>1.0000e-005</b>	<b>1.6500e-003</b>	<b>4.4000e-004</b>	<b>1.0000e-005</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>1.3390</b>	<b>1.3390</b>	<b>3.0000e-005</b>	<b>4.0000e-005</b>	<b>1.3534</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.2000e-003	0.2123	0.1604	2.5000e-004		5.9400e-003	5.9400e-003		5.9400e-003	5.9400e-003	0.0000	22.0948	22.0948	6.1900e-003	0.0000	22.2495
<b>Total</b>	<b>8.2000e-003</b>	<b>0.2123</b>	<b>0.1604</b>	<b>2.5000e-004</b>		<b>5.9400e-003</b>	<b>5.9400e-003</b>		<b>5.9400e-003</b>	<b>5.9400e-003</b>	<b>0.0000</b>	<b>22.0948</b>	<b>22.0948</b>	<b>6.1900e-003</b>	<b>0.0000</b>	<b>22.2495</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Demolition - 2023**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.7000e-004	5.0000e-005	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0834	0.0834	0.0000	1.0000e-005	0.0874
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	3.7000e-004	4.6300e-003	1.0000e-005	1.6100e-003	1.0000e-005	1.6200e-003	4.3000e-004	1.0000e-005	4.4000e-004	0.0000	1.2556	1.2556	3.0000e-005	3.0000e-005	1.2660
<b>Total</b>	<b>4.7000e-004</b>	<b>5.4000e-004</b>	<b>4.6800e-003</b>	<b>1.0000e-005</b>	<b>1.6400e-003</b>	<b>1.0000e-005</b>	<b>1.6500e-003</b>	<b>4.4000e-004</b>	<b>1.0000e-005</b>	<b>4.5000e-004</b>	<b>0.0000</b>	<b>1.3390</b>	<b>1.3390</b>	<b>3.0000e-005</b>	<b>4.0000e-005</b>	<b>1.3534</b>

**3.3 Site Preparation - 2023**

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0590	0.0000	0.0590	0.0303	0.0000	0.0303	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.9800e-003	0.0826	0.0547	1.1000e-004		3.8000e-003	3.8000e-003		3.4900e-003	3.4900e-003	0.0000	10.0352	10.0352	3.2500e-003	0.0000	10.1164
<b>Total</b>	<b>7.9800e-003</b>	<b>0.0826</b>	<b>0.0547</b>	<b>1.1000e-004</b>	<b>0.0590</b>	<b>3.8000e-003</b>	<b>0.0628</b>	<b>0.0303</b>	<b>3.4900e-003</b>	<b>0.0338</b>	<b>0.0000</b>	<b>10.0352</b>	<b>10.0352</b>	<b>3.2500e-003</b>	<b>0.0000</b>	<b>10.1164</b>

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**3.3 Site Preparation - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	7.2000e-004	2.5000e-004	0.0000	1.4000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.3741	0.3741	1.0000e-005	6.0000e-005	0.3908
Worker	2.2000e-004	1.7000e-004	2.1400e-003	1.0000e-005	7.5000e-004	0.0000	7.5000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.5795	0.5795	1.0000e-005	2.0000e-005	0.5843
<b>Total</b>	<b>2.4000e-004</b>	<b>8.9000e-004</b>	<b>2.3900e-003</b>	<b>1.0000e-005</b>	<b>8.9000e-004</b>	<b>1.0000e-005</b>	<b>9.0000e-004</b>	<b>2.4000e-004</b>	<b>1.0000e-005</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>0.9536</b>	<b>0.9536</b>	<b>2.0000e-005</b>	<b>8.0000e-005</b>	<b>0.9751</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0590	0.0000	0.0590	0.0303	0.0000	0.0303	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6300e-003	0.1012	0.0689	1.1000e-004		2.8400e-003	2.8400e-003		2.8400e-003	2.8400e-003	0.0000	10.0352	10.0352	3.2500e-003	0.0000	10.1163
<b>Total</b>	<b>3.6300e-003</b>	<b>0.1012</b>	<b>0.0689</b>	<b>1.1000e-004</b>	<b>0.0590</b>	<b>2.8400e-003</b>	<b>0.0618</b>	<b>0.0303</b>	<b>2.8400e-003</b>	<b>0.0332</b>	<b>0.0000</b>	<b>10.0352</b>	<b>10.0352</b>	<b>3.2500e-003</b>	<b>0.0000</b>	<b>10.1163</b>



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**3.3 Site Preparation - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	7.2000e-004	2.5000e-004	0.0000	1.4000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.3741	0.3741	1.0000e-005	6.0000e-005	0.3908
Worker	2.2000e-004	1.7000e-004	2.1400e-003	1.0000e-005	7.5000e-004	0.0000	7.5000e-004	2.0000e-004	0.0000	2.0000e-004	0.0000	0.5795	0.5795	1.0000e-005	2.0000e-005	0.5843
<b>Total</b>	<b>2.4000e-004</b>	<b>8.9000e-004</b>	<b>2.3900e-003</b>	<b>1.0000e-005</b>	<b>8.9000e-004</b>	<b>1.0000e-005</b>	<b>9.0000e-004</b>	<b>2.4000e-004</b>	<b>1.0000e-005</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>0.9536</b>	<b>0.9536</b>	<b>2.0000e-005</b>	<b>8.0000e-005</b>	<b>0.9751</b>

**3.4 Grading - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0874	0.0000	0.0874	0.0347	0.0000	0.0347	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0316	0.3279	0.2665	5.9000e-004		0.0135	0.0135		0.0125	0.0125	0.0000	51.8085	51.8085	0.0168	0.0000	52.2274
<b>Total</b>	<b>0.0316</b>	<b>0.3279</b>	<b>0.2665</b>	<b>5.9000e-004</b>	<b>0.0874</b>	<b>0.0135</b>	<b>0.1010</b>	<b>0.0347</b>	<b>0.0125</b>	<b>0.0472</b>	<b>0.0000</b>	<b>51.8085</b>	<b>51.8085</b>	<b>0.0168</b>	<b>0.0000</b>	<b>52.2274</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Grading - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0000e-005	2.2100e-003	6.4000e-004	1.0000e-005	3.3000e-004	2.0000e-005	3.5000e-004	9.0000e-005	2.0000e-005	1.1000e-004	0.0000	1.0558	1.0558	4.0000e-005	1.7000e-004	1.1068
Vendor	6.0000e-005	2.2900e-003	8.0000e-004	1.0000e-005	4.4000e-004	2.0000e-005	4.6000e-004	1.3000e-004	2.0000e-005	1.5000e-004	0.0000	1.1846	1.1846	3.0000e-005	1.7000e-004	1.2374
Worker	7.7000e-004	6.0000e-004	7.5200e-003	2.0000e-005	2.6200e-003	1.0000e-005	2.6300e-003	7.0000e-004	1.0000e-005	7.1000e-004	0.0000	2.0390	2.0390	5.0000e-005	5.0000e-005	2.0560
<b>Total</b>	<b>8.7000e-004</b>	<b>5.1000e-003</b>	<b>8.9600e-003</b>	<b>4.0000e-005</b>	<b>3.3900e-003</b>	<b>5.0000e-005</b>	<b>3.4400e-003</b>	<b>9.2000e-004</b>	<b>5.0000e-005</b>	<b>9.7000e-004</b>	<b>0.0000</b>	<b>4.2794</b>	<b>4.2794</b>	<b>1.2000e-004</b>	<b>3.9000e-004</b>	<b>4.4002</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0874	0.0000	0.0874	0.0347	0.0000	0.0347	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0172	0.4868	0.3489	5.9000e-004		0.0127	0.0127		0.0127	0.0127	0.0000	51.8084	51.8084	0.0168	0.0000	52.2273
<b>Total</b>	<b>0.0172</b>	<b>0.4868</b>	<b>0.3489</b>	<b>5.9000e-004</b>	<b>0.0874</b>	<b>0.0127</b>	<b>0.1001</b>	<b>0.0347</b>	<b>0.0127</b>	<b>0.0474</b>	<b>0.0000</b>	<b>51.8084</b>	<b>51.8084</b>	<b>0.0168</b>	<b>0.0000</b>	<b>52.2273</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Grading - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.0000e-005	2.2100e-003	6.4000e-004	1.0000e-005	3.3000e-004	2.0000e-005	3.5000e-004	9.0000e-005	2.0000e-005	1.1000e-004	0.0000	1.0558	1.0558	4.0000e-005	1.7000e-004	1.1068
Vendor	6.0000e-005	2.2900e-003	8.0000e-004	1.0000e-005	4.4000e-004	2.0000e-005	4.6000e-004	1.3000e-004	2.0000e-005	1.5000e-004	0.0000	1.1846	1.1846	3.0000e-005	1.7000e-004	1.2374
Worker	7.7000e-004	6.0000e-004	7.5200e-003	2.0000e-005	2.6200e-003	1.0000e-005	2.6300e-003	7.0000e-004	1.0000e-005	7.1000e-004	0.0000	2.0390	2.0390	5.0000e-005	5.0000e-005	2.0560
<b>Total</b>	<b>8.7000e-004</b>	<b>5.1000e-003</b>	<b>8.9600e-003</b>	<b>4.0000e-005</b>	<b>3.3900e-003</b>	<b>5.0000e-005</b>	<b>3.4400e-003</b>	<b>9.2000e-004</b>	<b>5.0000e-005</b>	<b>9.7000e-004</b>	<b>0.0000</b>	<b>4.2794</b>	<b>4.2794</b>	<b>1.2000e-004</b>	<b>3.9000e-004</b>	<b>4.4002</b>

**3.5 Building Construction - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1070	0.9782	1.1046	1.8300e-003		0.0476	0.0476		0.0448	0.0448	0.0000	157.6272	157.6272	0.0375	0.0000	158.5647
<b>Total</b>	<b>0.1070</b>	<b>0.9782</b>	<b>1.1046</b>	<b>1.8300e-003</b>		<b>0.0476</b>	<b>0.0476</b>		<b>0.0448</b>	<b>0.0448</b>	<b>0.0000</b>	<b>157.6272</b>	<b>157.6272</b>	<b>0.0375</b>	<b>0.0000</b>	<b>158.5647</b>

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**3.5 Building Construction - 2023**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2300e-003	0.0821	0.0286	4.4000e-004	0.0158	6.6000e-004	0.0165	4.5700e-003	6.3000e-004	5.1900e-003	0.0000	42.3946	42.3946	1.1000e-003	6.2500e-003	44.2846
Worker	0.0313	0.0243	0.3069	9.0000e-004	0.1070	5.3000e-004	0.1075	0.0284	4.9000e-004	0.0289	0.0000	83.1922	83.1922	1.9500e-003	2.1500e-003	83.8827
<b>Total</b>	<b>0.0336</b>	<b>0.1064</b>	<b>0.3355</b>	<b>1.3400e-003</b>	<b>0.1228</b>	<b>1.1900e-003</b>	<b>0.1240</b>	<b>0.0330</b>	<b>1.1200e-003</b>	<b>0.0341</b>	<b>0.0000</b>	<b>125.5868</b>	<b>125.5868</b>	<b>3.0500e-003</b>	<b>8.4000e-003</b>	<b>128.1673</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0735	1.6017	1.2154	1.8300e-003		0.0614	0.0614		0.0614	0.0614	0.0000	157.6270	157.6270	0.0375	0.0000	158.5645
<b>Total</b>	<b>0.0735</b>	<b>1.6017</b>	<b>1.2154</b>	<b>1.8300e-003</b>		<b>0.0614</b>	<b>0.0614</b>		<b>0.0614</b>	<b>0.0614</b>	<b>0.0000</b>	<b>157.6270</b>	<b>157.6270</b>	<b>0.0375</b>	<b>0.0000</b>	<b>158.5645</b>

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**3.5 Building Construction - 2023**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2300e-003	0.0821	0.0286	4.4000e-004	0.0158	6.6000e-004	0.0165	4.5700e-003	6.3000e-004	5.1900e-003	0.0000	42.3946	42.3946	1.1000e-003	6.2500e-003	44.2846
Worker	0.0313	0.0243	0.3069	9.0000e-004	0.1070	5.3000e-004	0.1075	0.0284	4.9000e-004	0.0289	0.0000	83.1922	83.1922	1.9500e-003	2.1500e-003	83.8827
<b>Total</b>	<b>0.0336</b>	<b>0.1064</b>	<b>0.3355</b>	<b>1.3400e-003</b>	<b>0.1228</b>	<b>1.1900e-003</b>	<b>0.1240</b>	<b>0.0330</b>	<b>1.1200e-003</b>	<b>0.0341</b>	<b>0.0000</b>	<b>125.5868</b>	<b>125.5868</b>	<b>3.0500e-003</b>	<b>8.4000e-003</b>	<b>128.1673</b>

**3.5 Building Construction - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0383	0.3495	0.4203	7.0000e-004		0.0160	0.0160		0.0150	0.0150	0.0000	60.2808	60.2808	0.0143	0.0000	60.6371
<b>Total</b>	<b>0.0383</b>	<b>0.3495</b>	<b>0.4203</b>	<b>7.0000e-004</b>		<b>0.0160</b>	<b>0.0160</b>		<b>0.0150</b>	<b>0.0150</b>	<b>0.0000</b>	<b>60.2808</b>	<b>60.2808</b>	<b>0.0143</b>	<b>0.0000</b>	<b>60.6371</b>

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**3.5 Building Construction - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.3000e-004	0.0317	0.0107	1.6000e-004	6.0500e-003	2.5000e-004	6.3000e-003	1.7500e-003	2.4000e-004	1.9800e-003	0.0000	15.9876	15.9876	4.1000e-004	2.3600e-003	16.7000
Worker	0.0112	8.2400e-003	0.1093	3.3000e-004	0.0409	1.9000e-004	0.0411	0.0109	1.8000e-004	0.0110	0.0000	31.1319	31.1319	6.7000e-004	7.6000e-004	31.3758
<b>Total</b>	<b>0.0120</b>	<b>0.0400</b>	<b>0.1200</b>	<b>4.9000e-004</b>	<b>0.0469</b>	<b>4.4000e-004</b>	<b>0.0474</b>	<b>0.0126</b>	<b>4.2000e-004</b>	<b>0.0130</b>	<b>0.0000</b>	<b>47.1194</b>	<b>47.1194</b>	<b>1.0800e-003</b>	<b>3.1200e-003</b>	<b>48.0757</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0281	0.6124	0.4647	7.0000e-004		0.0235	0.0235		0.0235	0.0235	0.0000	60.2807	60.2807	0.0143	0.0000	60.6371
<b>Total</b>	<b>0.0281</b>	<b>0.6124</b>	<b>0.4647</b>	<b>7.0000e-004</b>		<b>0.0235</b>	<b>0.0235</b>		<b>0.0235</b>	<b>0.0235</b>	<b>0.0000</b>	<b>60.2807</b>	<b>60.2807</b>	<b>0.0143</b>	<b>0.0000</b>	<b>60.6371</b>

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**3.5 Building Construction - 2024**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.3000e-004	0.0317	0.0107	1.6000e-004	6.0500e-003	2.5000e-004	6.3000e-003	1.7500e-003	2.4000e-004	1.9800e-003	0.0000	15.9876	15.9876	4.1000e-004	2.3600e-003	16.7000
Worker	0.0112	8.2400e-003	0.1093	3.3000e-004	0.0409	1.9000e-004	0.0411	0.0109	1.8000e-004	0.0110	0.0000	31.1319	31.1319	6.7000e-004	7.6000e-004	31.3758
<b>Total</b>	<b>0.0120</b>	<b>0.0400</b>	<b>0.1200</b>	<b>4.9000e-004</b>	<b>0.0469</b>	<b>4.4000e-004</b>	<b>0.0474</b>	<b>0.0126</b>	<b>4.2000e-004</b>	<b>0.0130</b>	<b>0.0000</b>	<b>47.1194</b>	<b>47.1194</b>	<b>1.0800e-003</b>	<b>3.1200e-003</b>	<b>48.0757</b>

**3.6 Paving - 2024**

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.4200e-003	0.0619	0.0951	1.5000e-004		3.0500e-003	3.0500e-003		2.8000e-003	2.8000e-003	0.0000	13.0173	13.0173	4.2100e-003	0.0000	13.1225
Paving	6.8300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0133</b>	<b>0.0619</b>	<b>0.0951</b>	<b>1.5000e-004</b>		<b>3.0500e-003</b>	<b>3.0500e-003</b>		<b>2.8000e-003</b>	<b>2.8000e-003</b>	<b>0.0000</b>	<b>13.0173</b>	<b>13.0173</b>	<b>4.2100e-003</b>	<b>0.0000</b>	<b>13.1225</b>

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**3.6 Paving - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.5900e-003	1.0000e-005	1.3500e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.6000e-004	0.0000	1.0241	1.0241	2.0000e-005	3.0000e-005	1.0321
<b>Total</b>	<b>3.7000e-004</b>	<b>2.7000e-004</b>	<b>3.5900e-003</b>	<b>1.0000e-005</b>	<b>1.3500e-003</b>	<b>1.0000e-005</b>	<b>1.3500e-003</b>	<b>3.6000e-004</b>	<b>1.0000e-005</b>	<b>3.6000e-004</b>	<b>0.0000</b>	<b>1.0241</b>	<b>1.0241</b>	<b>2.0000e-005</b>	<b>3.0000e-005</b>	<b>1.0321</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.0500e-003	0.1307	0.1124	1.5000e-004		4.3400e-003	4.3400e-003		4.3400e-003	4.3400e-003	0.0000	13.0172	13.0172	4.2100e-003	0.0000	13.1225
Paving	6.8300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0129</b>	<b>0.1307</b>	<b>0.1124</b>	<b>1.5000e-004</b>		<b>4.3400e-003</b>	<b>4.3400e-003</b>		<b>4.3400e-003</b>	<b>4.3400e-003</b>	<b>0.0000</b>	<b>13.0172</b>	<b>13.0172</b>	<b>4.2100e-003</b>	<b>0.0000</b>	<b>13.1225</b>



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**3.6 Paving - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.5900e-003	1.0000e-005	1.3500e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.6000e-004	0.0000	1.0241	1.0241	2.0000e-005	3.0000e-005	1.0321
<b>Total</b>	<b>3.7000e-004</b>	<b>2.7000e-004</b>	<b>3.5900e-003</b>	<b>1.0000e-005</b>	<b>1.3500e-003</b>	<b>1.0000e-005</b>	<b>1.3500e-003</b>	<b>3.6000e-004</b>	<b>1.0000e-005</b>	<b>3.6000e-004</b>	<b>0.0000</b>	<b>1.0241</b>	<b>1.0241</b>	<b>2.0000e-005</b>	<b>3.0000e-005</b>	<b>1.0321</b>

**3.7 Architectural Coating - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2919					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1700e-003	7.9200e-003	0.0118	2.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004	0.0000	1.6596	1.6596	9.0000e-005	0.0000	1.6620
<b>Total</b>	<b>1.2930</b>	<b>7.9200e-003</b>	<b>0.0118</b>	<b>2.0000e-005</b>		<b>4.0000e-004</b>	<b>4.0000e-004</b>		<b>4.0000e-004</b>	<b>4.0000e-004</b>	<b>0.0000</b>	<b>1.6596</b>	<b>1.6596</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>1.6620</b>

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**3.7 Architectural Coating - 2024**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.6000e-004	4.2000e-004	5.5100e-003	2.0000e-005	2.0600e-003	1.0000e-005	2.0700e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.5703	1.5703	3.0000e-005	4.0000e-005	1.5826
<b>Total</b>	<b>5.6000e-004</b>	<b>4.2000e-004</b>	<b>5.5100e-003</b>	<b>2.0000e-005</b>	<b>2.0600e-003</b>	<b>1.0000e-005</b>	<b>2.0700e-003</b>	<b>5.5000e-004</b>	<b>1.0000e-005</b>	<b>5.6000e-004</b>	<b>0.0000</b>	<b>1.5703</b>	<b>1.5703</b>	<b>3.0000e-005</b>	<b>4.0000e-005</b>	<b>1.5826</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2919					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.4000e-004	0.0153	0.0119	2.0000e-005		6.2000e-004	6.2000e-004		6.2000e-004	6.2000e-004	0.0000	1.6596	1.6596	9.0000e-005	0.0000	1.6620
<b>Total</b>	<b>1.2926</b>	<b>0.0153</b>	<b>0.0119</b>	<b>2.0000e-005</b>		<b>6.2000e-004</b>	<b>6.2000e-004</b>		<b>6.2000e-004</b>	<b>6.2000e-004</b>	<b>0.0000</b>	<b>1.6596</b>	<b>1.6596</b>	<b>9.0000e-005</b>	<b>0.0000</b>	<b>1.6620</b>

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**3.7 Architectural Coating - 2024**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.6000e-004	4.2000e-004	5.5100e-003	2.0000e-005	2.0600e-003	1.0000e-005	2.0700e-003	5.5000e-004	1.0000e-005	5.6000e-004	0.0000	1.5703	1.5703	3.0000e-005	4.0000e-005	1.5826
<b>Total</b>	<b>5.6000e-004</b>	<b>4.2000e-004</b>	<b>5.5100e-003</b>	<b>2.0000e-005</b>	<b>2.0600e-003</b>	<b>1.0000e-005</b>	<b>2.0700e-003</b>	<b>5.5000e-004</b>	<b>1.0000e-005</b>	<b>5.6000e-004</b>	<b>0.0000</b>	<b>1.5703</b>	<b>1.5703</b>	<b>3.0000e-005</b>	<b>4.0000e-005</b>	<b>1.5826</b>

**4.0 Operational Detail - Mobile**

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**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2689	0.4550	3.0211	7.1300e-003	0.7757	5.6400e-003	0.7814	0.2072	5.2800e-003	0.2125	0.0000	675.3712	675.3712	0.0350	0.0320	685.7892
Unmitigated	0.2689	0.4550	3.0211	7.1300e-003	0.7757	5.6400e-003	0.7814	0.2072	5.2800e-003	0.2125	0.0000	675.3712	675.3712	0.0350	0.0320	685.7892

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	57.24	57.24	57.24	245,314	245,314
Unrefrigerated Warehouse-No Rail	422.82	422.82	422.82	1,812,087	1,812,087
<b>Total</b>	<b>480.06</b>	<b>480.06</b>	<b>480.06</b>	<b>2,057,401</b>	<b>2,057,401</b>

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

**4.4 Fleet Mix**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.543085	0.056300	0.173085	0.134258	0.025645	0.007009	0.011926	0.017481	0.000552	0.000248	0.024848	0.000956	0.004606
Parking Lot	0.543085	0.056300	0.173085	0.134258	0.025645	0.007009	0.011926	0.017481	0.000552	0.000248	0.024848	0.000956	0.004606
Refrigerated Warehouse-No Rail	0.543085	0.056300	0.173085	0.134258	0.025645	0.007009	0.011926	0.017481	0.000552	0.000248	0.024848	0.000956	0.004606
Unrefrigerated Warehouse-No Rail	0.543085	0.056300	0.173085	0.134258	0.025645	0.007009	0.011926	0.017481	0.000552	0.000248	0.024848	0.000956	0.004606

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	298.2957	298.2957	0.0252	3.0500e-003	299.8346
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	298.2957	298.2957	0.0252	3.0500e-003	299.8346
NaturalGas Mitigated	0.0102	0.0924	0.0777	5.5000e-004	7.0300e-003	7.0300e-003	7.0300e-003	7.0300e-003	7.0300e-003	7.0300e-003	0.0000	100.6308	100.6308	1.9300e-003	1.8400e-003	101.2288
NaturalGas Unmitigated	0.0102	0.0924	0.0777	5.5000e-004	7.0300e-003	7.0300e-003	7.0300e-003	7.0300e-003	7.0300e-003	7.0300e-003	0.0000	100.6308	100.6308	1.9300e-003	1.8400e-003	101.2288

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	1.39671e+006	7.5300e-003	0.0685	0.0575	4.1000e-004		5.2000e-003	5.2000e-003		5.2000e-003	5.2000e-003	0.0000	74.5338	74.5338	1.4300e-003	1.3700e-003	74.9767
Unrefrigerated Warehouse-No Rail	489039	2.6400e-003	0.0240	0.0201	1.4000e-004		1.8200e-003	1.8200e-003		1.8200e-003	1.8200e-003	0.0000	26.0970	26.0970	5.0000e-004	4.8000e-004	26.2521
<b>Total</b>		<b>0.0102</b>	<b>0.0924</b>	<b>0.0777</b>	<b>5.5000e-004</b>		<b>7.0200e-003</b>	<b>7.0200e-003</b>		<b>7.0200e-003</b>	<b>7.0200e-003</b>	<b>0.0000</b>	<b>100.6308</b>	<b>100.6308</b>	<b>1.9300e-003</b>	<b>1.8500e-003</b>	<b>101.2288</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - NaturalGas**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	1.39671e+006	7.5300e-003	0.0685	0.0575	4.1000e-004		5.2000e-003	5.2000e-003		5.2000e-003	5.2000e-003	0.0000	74.5338	74.5338	1.4300e-003	1.3700e-003	74.9767
Unrefrigerated Warehouse-No Rail	489039	2.6400e-003	0.0240	0.0201	1.4000e-004		1.8200e-003	1.8200e-003		1.8200e-003	1.8200e-003	0.0000	26.0970	26.0970	5.0000e-004	4.8000e-004	26.2521
<b>Total</b>		<b>0.0102</b>	<b>0.0924</b>	<b>0.0777</b>	<b>5.5000e-004</b>		<b>7.0200e-003</b>	<b>7.0200e-003</b>		<b>7.0200e-003</b>	<b>7.0200e-003</b>	<b>0.0000</b>	<b>100.6308</b>	<b>100.6308</b>	<b>1.9300e-003</b>	<b>1.8500e-003</b>	<b>101.2288</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	41860	7.4237	6.3000e-004	8.0000e-005	7.4620
Refrigerated Warehouse-No Rail	1.07568e+006	190.7671	0.0161	1.9500e-003	191.7512
Unrefrigerated Warehouse-No Rail	564463	100.1050	8.4500e-003	1.0200e-003	100.6214
<b>Total</b>		<b>298.2957</b>	<b>0.0252</b>	<b>3.0500e-003</b>	<b>299.8346</b>



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.3 Energy by Land Use - Electricity**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	41860	7.4237	6.3000e-004	8.0000e-005	7.4620
Refrigerated Warehouse-No Rail	1.07568e+006	190.7671	0.0161	1.9500e-003	191.7512
Unrefrigerated Warehouse-No Rail	564463	100.1050	8.4500e-003	1.0200e-003	100.6214
<b>Total</b>		<b>298.2957</b>	<b>0.0252</b>	<b>3.0500e-003</b>	<b>299.8346</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.1249	8.0000e-005	9.2900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0181	0.0181	5.0000e-005	0.0000	0.0193
Unmitigated	1.1249	8.0000e-005	9.2900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0181	0.0181	5.0000e-005	0.0000	0.0193

**6.2 Area by SubCategory**

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1292					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9949					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.6000e-004	8.0000e-005	9.2900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0181	0.0181	5.0000e-005	0.0000	0.0193
<b>Total</b>	<b>1.1249</b>	<b>8.0000e-005</b>	<b>9.2900e-003</b>	<b>0.0000</b>		<b>3.0000e-005</b>	<b>3.0000e-005</b>		<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0181</b>	<b>0.0181</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.0193</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1292					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.9949					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.6000e-004	8.0000e-005	9.2900e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0181	0.0181	5.0000e-005	0.0000	0.0193
<b>Total</b>	<b>1.1249</b>	<b>8.0000e-005</b>	<b>9.2900e-003</b>	<b>0.0000</b>		<b>3.0000e-005</b>	<b>3.0000e-005</b>		<b>3.0000e-005</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.0181</b>	<b>0.0181</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.0193</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	163.9902	2.0467	0.0495	229.9130
Unmitigated	163.9902	2.0467	0.0495	229.9130

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	6.24375 / 0	16.3990	0.2047	4.9500e-003	22.9913
Unrefrigerated Warehouse-No Rail	56.1938 / 0	147.5912	1.8420	0.0446	206.9217
<b>Total</b>		<b>163.9902</b>	<b>2.0467</b>	<b>0.0495</b>	<b>229.9130</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	6.24375 / 0	16.3990	0.2047	4.9500e-003	22.9913
Unrefrigerated Warehouse-No Rail	56.1938 / 0	147.5912	1.8420	0.0446	206.9217
<b>Total</b>		<b>163.9902</b>	<b>2.0467</b>	<b>0.0495</b>	<b>229.9130</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	51.5191	3.0447	0.0000	127.6364
Unmitigated	51.5191	3.0447	0.0000	127.6364

**8.2 Waste by Land Use**

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	25.38	5.1519	0.3045	0.0000	12.7636
Unrefrigerated Warehouse-No Rail	228.42	46.3672	2.7402	0.0000	114.8728
<b>Total</b>		<b>51.5191</b>	<b>3.0447</b>	<b>0.0000</b>	<b>127.6364</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**8.2 Waste by Land Use**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	25.38	5.1519	0.3045	0.0000	12.7636
Unrefrigerated Warehouse-No Rail	228.42	46.3672	2.7402	0.0000	114.8728
<b>Total</b>		<b>51.5191</b>	<b>3.0447</b>	<b>0.0000</b>	<b>127.6364</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Equipment Type	Number
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**11.0 Vegetation**

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IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**IE Distribution Center #14 (Construction)  
San Bernardino-South Coast County, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	243.00	1000sqft	7.08	243,303.00	0
Refrigerated Warehouse-No Rail	27.00	1000sqft	0.79	27,000.00	0
Parking Lot	299.00	Space	1.53	119,600.00	0
Other Asphalt Surfaces	161.00	1000sqft	3.68	161,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	32
<b>Climate Zone</b>	10			<b>Operational Year</b>	2025
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	390.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - Consistent with DEIR's model.

Land Use - Consistent with DEIR's model.

Construction Phase - See SWAPE comment on "Unsubstantiated Changes to Individual Construction Phase Lengths"

Grading - Consistent with DEIR's model.

Trips and VMT - Consistent with DEIR's model.

Architectural Coating - See SWAPE Comment on "Unsubstantiated Changes to Architectural Coating Emission Factors"

Construction Off-road Equipment Mitigation - See SWAPE comment on "Incorrect Application of Tier 4 Interim Mitigation"

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	300.00	188.00
tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	30.00	19.00
tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	10.00	6.00
tblConstructionPhase	PhaseEndDate	11/11/2024	4/17/2024
tblConstructionPhase	PhaseEndDate	9/16/2024	3/12/2024
tblConstructionPhase	PhaseEndDate	5/29/2023	5/18/2023
tblConstructionPhase	PhaseEndDate	7/24/2023	6/22/2023
tblConstructionPhase	PhaseEndDate	10/14/2024	3/29/2024
tblConstructionPhase	PhaseEndDate	6/12/2023	5/26/2023
tblConstructionPhase	PhaseStartDate	10/15/2024	3/30/2024
tblConstructionPhase	PhaseStartDate	7/25/2023	6/23/2023
tblConstructionPhase	PhaseStartDate	6/13/2023	5/27/2023
tblConstructionPhase	PhaseStartDate	9/17/2024	3/13/2024
tblConstructionPhase	PhaseStartDate	5/30/2023	5/19/2023
tblLandUse	LandUseSquareFeet	243,000.00	243,303.00
tblLandUse	LotAcreage	5.58	7.08
tblLandUse	LotAcreage	0.62	0.79
tblLandUse	LotAcreage	2.69	1.53
tblLandUse	LotAcreage	3.70	3.68
tblTripsAndVMT	HaulingTripNumber	0.00	3.00
tblTripsAndVMT	HaulingTripNumber	0.00	38.00
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripLength	6.90	10.20

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tbITripsAndVMT	VendorTripLength	6.90	10.20
tbITripsAndVMT	VendorTripNumber	0.00	5.00
tbITripsAndVMT	VendorTripNumber	0.00	5.00
tbITripsAndVMT	VendorTripNumber	90.00	25.00
tbITripsAndVMT	WorkerTripLength	14.70	18.50
tbITripsAndVMT	WorkerTripLength	14.70	18.50
tbITripsAndVMT	WorkerTripLength	14.70	18.50
tbITripsAndVMT	WorkerTripLength	14.70	18.50
tbITripsAndVMT	WorkerTripLength	14.70	18.50
tbITripsAndVMT	WorkerTripLength	14.70	18.50
tbITripsAndVMT	WorkerTripNumber	15.00	18.00
tbITripsAndVMT	WorkerTripNumber	231.00	114.00
tbITripsAndVMT	WorkerTripNumber	46.00	23.00

**2.0 Emissions Summary**

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IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.4230	35.0214	29.1274	0.0670	19.9575	1.4301	21.2266	10.1832	1.3159	11.3509	0.0000	6,527.3925	6,527.3925	1.9586	0.1339	6,589.8803
2024	199.0264	14.8878	21.4861	0.0471	1.8398	0.6303	2.4701	0.4932	0.5929	1.0861	0.0000	4,661.6684	4,661.6684	0.7177	0.1301	4,716.6803
<b>Maximum</b>	<b>199.0264</b>	<b>35.0214</b>	<b>29.1274</b>	<b>0.0670</b>	<b>19.9575</b>	<b>1.4301</b>	<b>21.2266</b>	<b>10.1832</b>	<b>1.3159</b>	<b>11.3509</b>	<b>0.0000</b>	<b>6,527.3925</b>	<b>6,527.3925</b>	<b>1.9586</b>	<b>0.1339</b>	<b>6,589.8803</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	1.9118	51.7444	37.7988	0.0670	19.9575	1.3389	20.9068	10.1832	1.3386	11.1323	0.0000	6,527.3925	6,527.3925	1.9586	0.1339	6,589.8803
2024	198.9596	24.9984	23.1930	0.0471	1.8398	0.9205	2.7604	0.4932	0.9195	1.4128	0.0000	4,661.6684	4,661.6684	0.7177	0.1301	4,716.6803
<b>Maximum</b>	<b>198.9596</b>	<b>51.7444</b>	<b>37.7988</b>	<b>0.0670</b>	<b>19.9575</b>	<b>1.3389</b>	<b>20.9068</b>	<b>10.1832</b>	<b>1.3386</b>	<b>11.1323</b>	<b>0.0000</b>	<b>6,527.3925</b>	<b>6,527.3925</b>	<b>1.9586</b>	<b>0.1339</b>	<b>6,589.8803</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.78	-53.77	-20.51	0.00	0.00	-9.66	0.12	0.00	-18.31	-0.87	0.00	0.00	0.00	0.00	0.00	0.00

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.1661	6.7000e-004	0.0743	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1598	0.1598	4.2000e-004		0.1702
Energy	0.0557	0.5065	0.4255	3.0400e-003		0.0385	0.0385		0.0385	0.0385		607.8160	607.8160	0.0117	0.0111	611.4279
Mobile	1.6822	2.3048	17.9617	0.0417	4.3441	0.0310	4.3751	1.1586	0.0290	1.1876		4,350.2494	4,350.2494	0.2065	0.1869	4,411.0998
<b>Total</b>	<b>7.9041</b>	<b>2.8120</b>	<b>18.4615</b>	<b>0.0447</b>	<b>4.3441</b>	<b>0.0698</b>	<b>4.4138</b>	<b>1.1586</b>	<b>0.0678</b>	<b>1.2263</b>		<b>4,958.2251</b>	<b>4,958.2251</b>	<b>0.2186</b>	<b>0.1980</b>	<b>5,022.6978</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.1661	6.7000e-004	0.0743	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1598	0.1598	4.2000e-004		0.1702
Energy	0.0557	0.5065	0.4255	3.0400e-003		0.0385	0.0385		0.0385	0.0385		607.8160	607.8160	0.0117	0.0111	611.4279
Mobile	1.6822	2.3048	17.9617	0.0417	4.3441	0.0310	4.3751	1.1586	0.0290	1.1876		4,350.2494	4,350.2494	0.2065	0.1869	4,411.0998
<b>Total</b>	<b>7.9041</b>	<b>2.8120</b>	<b>18.4615</b>	<b>0.0447</b>	<b>4.3441</b>	<b>0.0698</b>	<b>4.4138</b>	<b>1.1586</b>	<b>0.0678</b>	<b>1.2263</b>		<b>4,958.2251</b>	<b>4,958.2251</b>	<b>0.2186</b>	<b>0.1980</b>	<b>5,022.6978</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/2/2023	5/18/2023	5	13	
2	Site Preparation	Site Preparation	5/19/2023	5/26/2023	5	6	
3	Grading	Grading	5/27/2023	6/22/2023	5	19	
4	Building Construction	Building Construction	6/23/2023	3/12/2024	5	188	
5	Paving	Paving	3/13/2024	3/29/2024	5	13	
6	Architectural Coating	Architectural Coating	3/30/2024	4/17/2024	5	13	

**Acres of Grading (Site Preparation Phase): 9**

**Acres of Grading (Grading Phase): 57**

**Acres of Paving: 5.21**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 405,455; Non-Residential Outdoor: 135,152; Striped Parking Area: 16,836 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	231	0.29
Demolition	Excavators	3	8.00	158	0.38
Grading	Excavators	2	8.00	158	0.38



IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	18.00	0.00	3.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	5.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	5.00	38.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	114.00	25.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Demolition - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280		3,746.9840	3,746.9840	1.0494		3,773.2183
<b>Total</b>	<b>2.2691</b>	<b>21.4844</b>	<b>19.6434</b>	<b>0.0388</b>		<b>0.9975</b>	<b>0.9975</b>		<b>0.9280</b>	<b>0.9280</b>		<b>3,746.9840</b>	<b>3,746.9840</b>	<b>1.0494</b>		<b>3,773.2183</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.6000e-004	0.0254	7.7300e-003	1.3000e-004	4.0400e-003	2.7000e-004	4.3100e-003	1.1100e-003	2.6000e-004	1.3600e-003		14.1270	14.1270	6.0000e-004	2.2400e-003	14.8094
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0807	0.0512	0.8336	2.2500e-003	0.2532	1.2300e-003	0.2544	0.0671	1.1300e-003	0.0683		230.5180	230.5180	5.0000e-003	5.1700e-003	232.1822
<b>Total</b>	<b>0.0812</b>	<b>0.0766</b>	<b>0.8413</b>	<b>2.3800e-003</b>	<b>0.2572</b>	<b>1.5000e-003</b>	<b>0.2587</b>	<b>0.0682</b>	<b>1.3900e-003</b>	<b>0.0696</b>		<b>244.6450</b>	<b>244.6450</b>	<b>5.6000e-003</b>	<b>7.4100e-003</b>	<b>246.9916</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Demolition - 2023**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2617	32.6638	24.6739	0.0388		0.9135	0.9135		0.9135	0.9135	0.0000	3,746.9840	3,746.9840	1.0494		3,773.2183
<b>Total</b>	<b>1.2617</b>	<b>32.6638</b>	<b>24.6739</b>	<b>0.0388</b>		<b>0.9135</b>	<b>0.9135</b>		<b>0.9135</b>	<b>0.9135</b>	<b>0.0000</b>	<b>3,746.9840</b>	<b>3,746.9840</b>	<b>1.0494</b>		<b>3,773.2183</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.6000e-004	0.0254	7.7300e-003	1.3000e-004	4.0400e-003	2.7000e-004	4.3100e-003	1.1100e-003	2.6000e-004	1.3600e-003		14.1270	14.1270	6.0000e-004	2.2400e-003	14.8094
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0807	0.0512	0.8336	2.2500e-003	0.2532	1.2300e-003	0.2544	0.0671	1.1300e-003	0.0683		230.5180	230.5180	5.0000e-003	5.1700e-003	232.1822
<b>Total</b>	<b>0.0812</b>	<b>0.0766</b>	<b>0.8413</b>	<b>2.3800e-003</b>	<b>0.2572</b>	<b>1.5000e-003</b>	<b>0.2587</b>	<b>0.0682</b>	<b>1.3900e-003</b>	<b>0.0696</b>		<b>244.6450</b>	<b>244.6450</b>	<b>5.6000e-003</b>	<b>7.4100e-003</b>	<b>246.9916</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Site Preparation - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.308 1	3,687.308 1	1.1926		3,717.121 9
<b>Total</b>	<b>2.6595</b>	<b>27.5242</b>	<b>18.2443</b>	<b>0.0381</b>	<b>19.6570</b>	<b>1.2660</b>	<b>20.9230</b>	<b>10.1025</b>	<b>1.1647</b>	<b>11.2672</b>		<b>3,687.308 1</b>	<b>3,687.308 1</b>	<b>1.1926</b>		<b>3,717.121 9</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.7900e-003	0.2289	0.0830	1.2800e-003	0.0473	1.9300e-003	0.0492	0.0136	1.8500e-003	0.0155		137.3494	137.3494	3.5800e-003	0.0202	143.4684
Worker	0.0807	0.0512	0.8336	2.2500e-003	0.2532	1.2300e-003	0.2544	0.0671	1.1300e-003	0.0683		230.5180	230.5180	5.0000e-003	5.1700e-003	232.1822
<b>Total</b>	<b>0.0875</b>	<b>0.2801</b>	<b>0.9166</b>	<b>3.5300e-003</b>	<b>0.3005</b>	<b>3.1600e-003</b>	<b>0.3036</b>	<b>0.0807</b>	<b>2.9800e-003</b>	<b>0.0837</b>		<b>367.8673</b>	<b>367.8673</b>	<b>8.5800e-003</b>	<b>0.0254</b>	<b>375.6506</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Site Preparation - 2023**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	1.2097	33.7214	22.9600	0.0381		0.9462	0.9462		0.9462	0.9462	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9
<b>Total</b>	<b>1.2097</b>	<b>33.7214</b>	<b>22.9600</b>	<b>0.0381</b>	<b>19.6570</b>	<b>0.9462</b>	<b>20.6032</b>	<b>10.1025</b>	<b>0.9462</b>	<b>11.0486</b>	<b>0.0000</b>	<b>3,687.308 1</b>	<b>3,687.308 1</b>	<b>1.1926</b>		<b>3,717.121 9</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.7900e-003	0.2289	0.0830	1.2800e-003	0.0473	1.9300e-003	0.0492	0.0136	1.8500e-003	0.0155		137.3494	137.3494	3.5800e-003	0.0202	143.4684
Worker	0.0807	0.0512	0.8336	2.2500e-003	0.2532	1.2300e-003	0.2544	0.0671	1.1300e-003	0.0683		230.5180	230.5180	5.0000e-003	5.1700e-003	232.1822
<b>Total</b>	<b>0.0875</b>	<b>0.2801</b>	<b>0.9166</b>	<b>3.5300e-003</b>	<b>0.3005</b>	<b>3.1600e-003</b>	<b>0.3036</b>	<b>0.0807</b>	<b>2.9800e-003</b>	<b>0.0837</b>		<b>367.8673</b>	<b>367.8673</b>	<b>8.5800e-003</b>	<b>0.0254</b>	<b>375.6506</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Grading - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
<b>Total</b>	<b>3.3217</b>	<b>34.5156</b>	<b>28.0512</b>	<b>0.0621</b>	<b>9.2036</b>	<b>1.4245</b>	<b>10.6281</b>	<b>3.6538</b>	<b>1.3105</b>	<b>4.9643</b>		<b>6,011.4777</b>	<b>6,011.4777</b>	<b>1.9442</b>		<b>6,060.0836</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.8200e-003	0.2200	0.0670	1.1200e-003	0.0350	2.3100e-003	0.0373	9.6000e-003	2.2100e-003	0.0118		122.4344	122.4344	5.2200e-003	0.0194	128.3481
Vendor	6.7900e-003	0.2289	0.0830	1.2800e-003	0.0473	1.9300e-003	0.0492	0.0136	1.8500e-003	0.0155		137.3494	137.3494	3.5800e-003	0.0202	143.4684
Worker	0.0896	0.0569	0.9262	2.5000e-003	0.2813	1.3700e-003	0.2827	0.0746	1.2600e-003	0.0759		256.1311	256.1311	5.5600e-003	5.7400e-003	257.9802
<b>Total</b>	<b>0.1012</b>	<b>0.5058</b>	<b>1.0762</b>	<b>4.9000e-003</b>	<b>0.3636</b>	<b>5.6100e-003</b>	<b>0.3692</b>	<b>0.0978</b>	<b>5.3200e-003</b>	<b>0.1031</b>		<b>515.9148</b>	<b>515.9148</b>	<b>0.0144</b>	<b>0.0454</b>	<b>529.7967</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Grading - 2023**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	1.8106	51.2386	36.7226	0.0621		1.3333	1.3333		1.3333	1.3333	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
<b>Total</b>	<b>1.8106</b>	<b>51.2386</b>	<b>36.7226</b>	<b>0.0621</b>	<b>9.2036</b>	<b>1.3333</b>	<b>10.5369</b>	<b>3.6538</b>	<b>1.3333</b>	<b>4.9871</b>	<b>0.0000</b>	<b>6,011.4777</b>	<b>6,011.4777</b>	<b>1.9442</b>		<b>6,060.0836</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.8200e-003	0.2200	0.0670	1.1200e-003	0.0350	2.3100e-003	0.0373	9.6000e-003	2.2100e-003	0.0118		122.4344	122.4344	5.2200e-003	0.0194	128.3481
Vendor	6.7900e-003	0.2289	0.0830	1.2800e-003	0.0473	1.9300e-003	0.0492	0.0136	1.8500e-003	0.0155		137.3494	137.3494	3.5800e-003	0.0202	143.4684
Worker	0.0896	0.0569	0.9262	2.5000e-003	0.2813	1.3700e-003	0.2827	0.0746	1.2600e-003	0.0759		256.1311	256.1311	5.5600e-003	5.7400e-003	257.9802
<b>Total</b>	<b>0.1012</b>	<b>0.5058</b>	<b>1.0762</b>	<b>4.9000e-003</b>	<b>0.3636</b>	<b>5.6100e-003</b>	<b>0.3692</b>	<b>0.0978</b>	<b>5.3200e-003</b>	<b>0.1031</b>		<b>515.9148</b>	<b>515.9148</b>	<b>0.0144</b>	<b>0.0454</b>	<b>529.7967</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>		<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0340	1.1446	0.4151	6.4000e-003	0.2365	9.6600e-003	0.2461	0.0681	9.2400e-003	0.0773		686.7469	686.7469	0.0179	0.1012	717.3418
Worker	0.5109	0.3244	5.2794	0.0143	1.6034	7.7800e-003	1.6111	0.4252	7.1600e-003	0.4323		1,459.9470	1,459.9470	0.0317	0.0327	1,470.4873
<b>Total</b>	<b>0.5449</b>	<b>1.4690</b>	<b>5.6945</b>	<b>0.0207</b>	<b>1.8398</b>	<b>0.0174</b>	<b>1.8573</b>	<b>0.4932</b>	<b>0.0164</b>	<b>0.5096</b>		<b>2,146.6939</b>	<b>2,146.6939</b>	<b>0.0496</b>	<b>0.1339</b>	<b>2,187.8291</b>



IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2023**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0809	23.5544	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>1.0809</b>	<b>23.5544</b>	<b>17.8738</b>	<b>0.0269</b>		<b>0.9036</b>	<b>0.9036</b>		<b>0.9036</b>	<b>0.9036</b>	<b>0.0000</b>	<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0340	1.1446	0.4151	6.4000e-003	0.2365	9.6600e-003	0.2461	0.0681	9.2400e-003	0.0773		686.7469	686.7469	0.0179	0.1012	717.3418
Worker	0.5109	0.3244	5.2794	0.0143	1.6034	7.7800e-003	1.6111	0.4252	7.1600e-003	0.4323		1,459.9470	1,459.9470	0.0317	0.0327	1,470.4873
<b>Total</b>	<b>0.5449</b>	<b>1.4690</b>	<b>5.6945</b>	<b>0.0207</b>	<b>1.8398</b>	<b>0.0174</b>	<b>1.8573</b>	<b>0.4932</b>	<b>0.0164</b>	<b>0.5096</b>		<b>2,146.6939</b>	<b>2,146.6939</b>	<b>0.0496</b>	<b>0.1339</b>	<b>2,187.8291</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
<b>Total</b>	<b>1.4716</b>	<b>13.4438</b>	<b>16.1668</b>	<b>0.0270</b>		<b>0.6133</b>	<b>0.6133</b>		<b>0.5769</b>	<b>0.5769</b>		<b>2,555.6989</b>	<b>2,555.6989</b>	<b>0.6044</b>		<b>2,570.8077</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0331	1.1565	0.4072	6.3200e-003	0.2365	9.5100e-003	0.2460	0.0681	9.1000e-003	0.0772		677.3311	677.3311	0.0173	0.0998	707.4951
Worker	0.4749	0.2875	4.9121	0.0139	1.6034	7.4800e-003	1.6108	0.4252	6.8800e-003	0.4321		1,428.6384	1,428.6384	0.0286	0.0303	1,438.3775
<b>Total</b>	<b>0.5080</b>	<b>1.4440</b>	<b>5.3193</b>	<b>0.0202</b>	<b>1.8398</b>	<b>0.0170</b>	<b>1.8568</b>	<b>0.4932</b>	<b>0.0160</b>	<b>0.5092</b>		<b>2,105.9695</b>	<b>2,105.9695</b>	<b>0.0459</b>	<b>0.1301</b>	<b>2,145.8726</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2024**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0809	23.5544	17.8738	0.0270		0.9036	0.9036		0.9036	0.9036	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
<b>Total</b>	<b>1.0809</b>	<b>23.5544</b>	<b>17.8738</b>	<b>0.0270</b>		<b>0.9036</b>	<b>0.9036</b>		<b>0.9036</b>	<b>0.9036</b>	<b>0.0000</b>	<b>2,555.6989</b>	<b>2,555.6989</b>	<b>0.6044</b>		<b>2,570.8077</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0331	1.1565	0.4072	6.3200e-003	0.2365	9.5100e-003	0.2460	0.0681	9.1000e-003	0.0772		677.3311	677.3311	0.0173	0.0998	707.4951
Worker	0.4749	0.2875	4.9121	0.0139	1.6034	7.4800e-003	1.6108	0.4252	6.8800e-003	0.4321		1,428.6384	1,428.6384	0.0286	0.0303	1,438.3775
<b>Total</b>	<b>0.5080</b>	<b>1.4440</b>	<b>5.3193</b>	<b>0.0202</b>	<b>1.8398</b>	<b>0.0170</b>	<b>1.8568</b>	<b>0.4932</b>	<b>0.0160</b>	<b>0.5092</b>		<b>2,105.9695</b>	<b>2,105.9695</b>	<b>0.0459</b>	<b>0.1301</b>	<b>2,145.8726</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Paving - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	1.0500					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.0382</b>	<b>9.5246</b>	<b>14.6258</b>	<b>0.0228</b>		<b>0.4685</b>	<b>0.4685</b>		<b>0.4310</b>	<b>0.4310</b>		<b>2,207.547 2</b>	<b>2,207.547 2</b>	<b>0.7140</b>		<b>2,225.396 3</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0625	0.0378	0.6463	1.8200e-003	0.2110	9.8000e-004	0.2120	0.0559	9.1000e-004	0.0569		187.9787	187.9787	3.7600e-003	3.9800e-003	189.2602
<b>Total</b>	<b>0.0625</b>	<b>0.0378</b>	<b>0.6463</b>	<b>1.8200e-003</b>	<b>0.2110</b>	<b>9.8000e-004</b>	<b>0.2120</b>	<b>0.0559</b>	<b>9.1000e-004</b>	<b>0.0569</b>		<b>187.9787</b>	<b>187.9787</b>	<b>3.7600e-003</b>	<b>3.9800e-003</b>	<b>189.2602</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Paving - 2024**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9311	20.1146	17.2957	0.0228		0.6670	0.6670		0.6670	0.6670	0.0000	2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	1.0500					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.9811</b>	<b>20.1146</b>	<b>17.2957</b>	<b>0.0228</b>		<b>0.6670</b>	<b>0.6670</b>		<b>0.6670</b>	<b>0.6670</b>	<b>0.0000</b>	<b>2,207.547 2</b>	<b>2,207.547 2</b>	<b>0.7140</b>		<b>2,225.396 3</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0625	0.0378	0.6463	1.8200e-003	0.2110	9.8000e-004	0.2120	0.0559	9.1000e-004	0.0569		187.9787	187.9787	3.7600e-003	3.9800e-003	189.2602
<b>Total</b>	<b>0.0625</b>	<b>0.0378</b>	<b>0.6463</b>	<b>1.8200e-003</b>	<b>0.2110</b>	<b>9.8000e-004</b>	<b>0.2120</b>	<b>0.0559</b>	<b>9.1000e-004</b>	<b>0.0569</b>		<b>187.9787</b>	<b>187.9787</b>	<b>3.7600e-003</b>	<b>3.9800e-003</b>	<b>189.2602</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Architectural Coating - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	198.7499					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>198.9306</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0958	0.0580	0.9910	2.7900e-003	0.3235	1.5100e-003	0.3250	0.0858	1.3900e-003	0.0872		288.2341	288.2341	5.7700e-003	6.1100e-003	290.1990
<b>Total</b>	<b>0.0958</b>	<b>0.0580</b>	<b>0.9910</b>	<b>2.7900e-003</b>	<b>0.3235</b>	<b>1.5100e-003</b>	<b>0.3250</b>	<b>0.0858</b>	<b>1.3900e-003</b>	<b>0.0872</b>		<b>288.2341</b>	<b>288.2341</b>	<b>5.7700e-003</b>	<b>6.1100e-003</b>	<b>290.1990</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Architectural Coating - 2024**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	198.7499					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>198.8638</b>	<b>2.3524</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>0.0951</b>	<b>0.0951</b>		<b>0.0951</b>	<b>0.0951</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0958	0.0580	0.9910	2.7900e-003	0.3235	1.5100e-003	0.3250	0.0858	1.3900e-003	0.0872		288.2341	288.2341	5.7700e-003	6.1100e-003	290.1990
<b>Total</b>	<b>0.0958</b>	<b>0.0580</b>	<b>0.9910</b>	<b>2.7900e-003</b>	<b>0.3235</b>	<b>1.5100e-003</b>	<b>0.3250</b>	<b>0.0858</b>	<b>1.3900e-003</b>	<b>0.0872</b>		<b>288.2341</b>	<b>288.2341</b>	<b>5.7700e-003</b>	<b>6.1100e-003</b>	<b>290.1990</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.6822	2.3048	17.9617	0.0417	4.3441	0.0310	4.3751	1.1586	0.0290	1.1876		4,350,249 4	4,350,249 4	0.2065	0.1869	4,411,099 8
Unmitigated	1.6822	2.3048	17.9617	0.0417	4.3441	0.0310	4.3751	1.1586	0.0290	1.1876		4,350,249 4	4,350,249 4	0.2065	0.1869	4,411,099 8

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	57.24	57.24	57.24	245,314	245,314
Unrefrigerated Warehouse-No Rail	422.82	422.82	422.82	1,812,087	1,812,087
<b>Total</b>	<b>480.06</b>	<b>480.06</b>	<b>480.06</b>	<b>2,057,401</b>	<b>2,057,401</b>

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3



IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.543085	0.056300	0.173085	0.134258	0.025645	0.007009	0.011926	0.017481	0.000552	0.000248	0.024848	0.000956	0.004606
Parking Lot	0.543085	0.056300	0.173085	0.134258	0.025645	0.007009	0.011926	0.017481	0.000552	0.000248	0.024848	0.000956	0.004606
Refrigerated Warehouse-No Rail	0.543085	0.056300	0.173085	0.134258	0.025645	0.007009	0.011926	0.017481	0.000552	0.000248	0.024848	0.000956	0.004606
Unrefrigerated Warehouse-No Rail	0.543085	0.056300	0.173085	0.134258	0.025645	0.007009	0.011926	0.017481	0.000552	0.000248	0.024848	0.000956	0.004606

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
NaturalGas Mitigated	0.0557	0.5065	0.4255	3.0400e-003		0.0385	0.0385		0.0385	0.0385		607.8160	607.8160	0.0117	0.0111	611.4279
NaturalGas Unmitigated	0.0557	0.5065	0.4255	3.0400e-003		0.0385	0.0385		0.0385	0.0385		607.8160	607.8160	0.0117	0.0111	611.4279

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - Natural Gas**

Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	3826.6	0.0413	0.3752	0.3151	2.2500e-003		0.0285	0.0285		0.0285	0.0285		450.1886	450.1886	8.6300e-003	8.2500e-003	452.8638
Unrefrigerated Warehouse-No Rail	1339.83	0.0145	0.1314	0.1103	7.9000e-004		9.9800e-003	9.9800e-003		9.9800e-003	9.9800e-003		157.6274	157.6274	3.0200e-003	2.8900e-003	158.5641
<b>Total</b>		<b>0.0557</b>	<b>0.5065</b>	<b>0.4255</b>	<b>3.0400e-003</b>		<b>0.0385</b>	<b>0.0385</b>		<b>0.0385</b>	<b>0.0385</b>		<b>607.8160</b>	<b>607.8160</b>	<b>0.0117</b>	<b>0.0111</b>	<b>611.4279</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - NaturalGas**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	3.8266	0.0413	0.3752	0.3151	2.2500e-003		0.0285	0.0285		0.0285	0.0285		450.1886	450.1886	8.6300e-003	8.2500e-003	452.8638
Unrefrigerated Warehouse-No Rail	1.33983	0.0145	0.1314	0.1103	7.9000e-004		9.9800e-003	9.9800e-003		9.9800e-003	9.9800e-003		157.6274	157.6274	3.0200e-003	2.8900e-003	158.5641
<b>Total</b>		<b>0.0557</b>	<b>0.5065</b>	<b>0.4255</b>	<b>3.0400e-003</b>		<b>0.0385</b>	<b>0.0385</b>		<b>0.0385</b>	<b>0.0385</b>		<b>607.8160</b>	<b>607.8160</b>	<b>0.0117</b>	<b>0.0111</b>	<b>611.4279</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.1661	6.7000e-004	0.0743	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1598	0.1598	4.2000e-004		0.1702
Unmitigated	6.1661	6.7000e-004	0.0743	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1598	0.1598	4.2000e-004		0.1702

**6.2 Area by SubCategory**

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7079					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.4514					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.8400e-003	6.7000e-004	0.0743	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1598	0.1598	4.2000e-004		0.1702
<b>Total</b>	<b>6.1661</b>	<b>6.7000e-004</b>	<b>0.0743</b>	<b>1.0000e-005</b>		<b>2.6000e-004</b>	<b>2.6000e-004</b>		<b>2.6000e-004</b>	<b>2.6000e-004</b>		<b>0.1598</b>	<b>0.1598</b>	<b>4.2000e-004</b>		<b>0.1702</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7079					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.4514					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.8400e-003	6.7000e-004	0.0743	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1598	0.1598	4.2000e-004		0.1702
<b>Total</b>	<b>6.1661</b>	<b>6.7000e-004</b>	<b>0.0743</b>	<b>1.0000e-005</b>		<b>2.6000e-004</b>	<b>2.6000e-004</b>		<b>2.6000e-004</b>	<b>2.6000e-004</b>		<b>0.1598</b>	<b>0.1598</b>	<b>4.2000e-004</b>		<b>0.1702</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**IE Distribution Center #14 (Construction)**

**San Bernardino-South Coast County, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	243.00	1000sqft	7.08	243,303.00	0
Refrigerated Warehouse-No Rail	27.00	1000sqft	0.79	27,000.00	0
Parking Lot	299.00	Space	1.53	119,600.00	0
Other Asphalt Surfaces	161.00	1000sqft	3.68	161,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	32
<b>Climate Zone</b>	10			<b>Operational Year</b>	2025
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	390.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics - Consistent with DEIR's model.

Land Use - Consistent with DEIR's model.

Construction Phase - See SWAPE comment on "Unsubstantiated Changes to Individual Construction Phase Lengths"

Grading - Consistent with DEIR's model.

Trips and VMT - Consistent with DEIR's model.

Architectural Coating - See SWAPE Comment on "Unsubstantiated Changes to Architectural Coating Emission Factors"

Construction Off-road Equipment Mitigation - See SWAPE comment on "Incorrect Application of Tier 4 Interim Mitigation"

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
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tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2



IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	300.00	188.00
tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	30.00	19.00
tblConstructionPhase	NumDays	20.00	13.00
tblConstructionPhase	NumDays	10.00	6.00
tblConstructionPhase	PhaseEndDate	11/11/2024	4/17/2024
tblConstructionPhase	PhaseEndDate	9/16/2024	3/12/2024
tblConstructionPhase	PhaseEndDate	5/29/2023	5/18/2023
tblConstructionPhase	PhaseEndDate	7/24/2023	6/22/2023
tblConstructionPhase	PhaseEndDate	10/14/2024	3/29/2024
tblConstructionPhase	PhaseEndDate	6/12/2023	5/26/2023
tblConstructionPhase	PhaseStartDate	10/15/2024	3/30/2024
tblConstructionPhase	PhaseStartDate	7/25/2023	6/23/2023
tblConstructionPhase	PhaseStartDate	6/13/2023	5/27/2023
tblConstructionPhase	PhaseStartDate	9/17/2024	3/13/2024
tblConstructionPhase	PhaseStartDate	5/30/2023	5/19/2023
tblLandUse	LandUseSquareFeet	243,000.00	243,303.00
tblLandUse	LotAcreage	5.58	7.08
tblLandUse	LotAcreage	0.62	0.79
tblLandUse	LotAcreage	2.69	1.53
tblLandUse	LotAcreage	3.70	3.68
tblTripsAndVMT	HaulingTripNumber	0.00	3.00
tblTripsAndVMT	HaulingTripNumber	0.00	38.00
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripLength	6.90	10.20
tblTripsAndVMT	VendorTripLength	6.90	10.20

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

tbITripsAndVMT	VendorTripLength	6.90	10.20
tbITripsAndVMT	VendorTripNumber	0.00	5.00
tbITripsAndVMT	VendorTripNumber	0.00	5.00
tbITripsAndVMT	VendorTripNumber	90.00	25.00
tbITripsAndVMT	WorkerTripLength	14.70	18.50
tbITripsAndVMT	WorkerTripLength	14.70	18.50
tbITripsAndVMT	WorkerTripLength	14.70	18.50
tbITripsAndVMT	WorkerTripLength	14.70	18.50
tbITripsAndVMT	WorkerTripLength	14.70	18.50
tbITripsAndVMT	WorkerTripLength	14.70	18.50
tbITripsAndVMT	WorkerTripLength	14.70	18.50
tbITripsAndVMT	WorkerTripNumber	15.00	18.00
tbITripsAndVMT	WorkerTripNumber	231.00	114.00
tbITripsAndVMT	WorkerTripNumber	46.00	23.00

**2.0 Emissions Summary**

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IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.1 Overall Construction (Maximum Daily Emission)**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	3.4204	35.0486	28.9591	0.0668	19.9575	1.4301	21.2267	10.1832	1.3159	11.3509	0.0000	6,503.6563	6,503.6563	1.9585	0.1352	6,566.2175
2024	199.0247	14.9646	20.5895	0.0458	1.8398	0.6303	2.4701	0.4932	0.5929	1.0861	0.0000	4,528.3866	4,528.3866	0.7177	0.1312	4,583.7350
<b>Maximum</b>	<b>199.0247</b>	<b>35.0486</b>	<b>28.9591</b>	<b>0.0668</b>	<b>19.9575</b>	<b>1.4301</b>	<b>21.2267</b>	<b>10.1832</b>	<b>1.3159</b>	<b>11.3509</b>	<b>0.0000</b>	<b>6,503.6563</b>	<b>6,503.6563</b>	<b>1.9585</b>	<b>0.1352</b>	<b>6,566.2175</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	1.9093	51.7716	37.6305	0.0668	19.9575	1.3389	20.9068	10.1832	1.3386	11.1323	0.0000	6,503.6563	6,503.6563	1.9585	0.1352	6,566.2175
2024	198.9579	25.0753	22.2964	0.0458	1.8398	0.9206	2.7604	0.4932	0.9196	1.4128	0.0000	4,528.3866	4,528.3866	0.7177	0.1312	4,583.7350
<b>Maximum</b>	<b>198.9579</b>	<b>51.7716</b>	<b>37.6305</b>	<b>0.0668</b>	<b>19.9575</b>	<b>1.3389</b>	<b>20.9068</b>	<b>10.1832</b>	<b>1.3386</b>	<b>11.1323</b>	<b>0.0000</b>	<b>6,503.6563</b>	<b>6,503.6563</b>	<b>1.9585</b>	<b>0.1352</b>	<b>6,566.2175</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.78	-53.65	-20.95	0.00	0.00	-9.66	0.12	0.00	-18.31	-0.87	0.00	0.00	0.00	0.00	0.00	0.00

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.1661	6.7000e-004	0.0743	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1598	0.1598	4.2000e-004		0.1702
Energy	0.0557	0.5065	0.4255	3.0400e-003		0.0385	0.0385		0.0385	0.0385		607.8160	607.8160	0.0117	0.0111	611.4279
Mobile	1.4842	2.4487	15.9232	0.0386	4.3441	0.0310	4.3751	1.1586	0.0290	1.1876		4,035.0170	4,035.0170	0.2097	0.1913	4,097.2745
<b>Total</b>	<b>7.7060</b>	<b>2.9559</b>	<b>16.4230</b>	<b>0.0417</b>	<b>4.3441</b>	<b>0.0698</b>	<b>4.4138</b>	<b>1.1586</b>	<b>0.0678</b>	<b>1.2264</b>		<b>4,642.9927</b>	<b>4,642.9927</b>	<b>0.2217</b>	<b>0.2025</b>	<b>4,708.8726</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.1661	6.7000e-004	0.0743	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1598	0.1598	4.2000e-004		0.1702
Energy	0.0557	0.5065	0.4255	3.0400e-003		0.0385	0.0385		0.0385	0.0385		607.8160	607.8160	0.0117	0.0111	611.4279
Mobile	1.4842	2.4487	15.9232	0.0386	4.3441	0.0310	4.3751	1.1586	0.0290	1.1876		4,035.0170	4,035.0170	0.2097	0.1913	4,097.2745
<b>Total</b>	<b>7.7060</b>	<b>2.9559</b>	<b>16.4230</b>	<b>0.0417</b>	<b>4.3441</b>	<b>0.0698</b>	<b>4.4138</b>	<b>1.1586</b>	<b>0.0678</b>	<b>1.2264</b>		<b>4,642.9927</b>	<b>4,642.9927</b>	<b>0.2217</b>	<b>0.2025</b>	<b>4,708.8726</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/2/2023	5/18/2023	5	13	
2	Site Preparation	Site Preparation	5/19/2023	5/26/2023	5	6	
3	Grading	Grading	5/27/2023	6/22/2023	5	19	
4	Building Construction	Building Construction	6/23/2023	3/12/2024	5	188	
5	Paving	Paving	3/13/2024	3/29/2024	5	13	
6	Architectural Coating	Architectural Coating	3/30/2024	4/17/2024	5	13	

**Acres of Grading (Site Preparation Phase): 9**

**Acres of Grading (Grading Phase): 57**

**Acres of Paving: 5.21**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 405,455; Non-Residential Outdoor: 135,152; Striped Parking Area: 16,836 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	7.00	231	0.29
Demolition	Excavators	3	8.00	158	0.38
Grading	Excavators	2	8.00	158	0.38

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	18.00	0.00	3.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	5.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	5.00	38.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	114.00	25.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	23.00	0.00	0.00	18.50	10.20	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Demolition - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280		3,746.9840	3,746.9840	1.0494		3,773.2183
<b>Total</b>	<b>2.2691</b>	<b>21.4844</b>	<b>19.6434</b>	<b>0.0388</b>		<b>0.9975</b>	<b>0.9975</b>		<b>0.9280</b>	<b>0.9280</b>		<b>3,746.9840</b>	<b>3,746.9840</b>	<b>1.0494</b>		<b>3,773.2183</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.1000e-004	0.0268	7.8700e-003	1.3000e-004	4.0400e-003	2.7000e-004	4.3100e-003	1.1100e-003	2.6000e-004	1.3600e-003		14.1484	14.1484	6.0000e-004	2.2400e-003	14.8317
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0790	0.0538	0.6790	2.0400e-003	0.2532	1.2300e-003	0.2544	0.0671	1.1300e-003	0.0683		208.7797	208.7797	4.9200e-003	5.3300e-003	210.4905
<b>Total</b>	<b>0.0795</b>	<b>0.0806</b>	<b>0.6869</b>	<b>2.1700e-003</b>	<b>0.2572</b>	<b>1.5000e-003</b>	<b>0.2587</b>	<b>0.0682</b>	<b>1.3900e-003</b>	<b>0.0696</b>		<b>222.9281</b>	<b>222.9281</b>	<b>5.5200e-003</b>	<b>7.5700e-003</b>	<b>225.3221</b>



IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.2 Demolition - 2023**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2617	32.6638	24.6739	0.0388		0.9135	0.9135		0.9135	0.9135	0.0000	3,746.9840	3,746.9840	1.0494		3,773.2183
<b>Total</b>	<b>1.2617</b>	<b>32.6638</b>	<b>24.6739</b>	<b>0.0388</b>		<b>0.9135</b>	<b>0.9135</b>		<b>0.9135</b>	<b>0.9135</b>	<b>0.0000</b>	<b>3,746.9840</b>	<b>3,746.9840</b>	<b>1.0494</b>		<b>3,773.2183</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	5.1000e-004	0.0268	7.8700e-003	1.3000e-004	4.0400e-003	2.7000e-004	4.3100e-003	1.1100e-003	2.6000e-004	1.3600e-003		14.1484	14.1484	6.0000e-004	2.2400e-003	14.8317
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0790	0.0538	0.6790	2.0400e-003	0.2532	1.2300e-003	0.2544	0.0671	1.1300e-003	0.0683		208.7797	208.7797	4.9200e-003	5.3300e-003	210.4905
<b>Total</b>	<b>0.0795</b>	<b>0.0806</b>	<b>0.6869</b>	<b>2.1700e-003</b>	<b>0.2572</b>	<b>1.5000e-003</b>	<b>0.2587</b>	<b>0.0682</b>	<b>1.3900e-003</b>	<b>0.0696</b>		<b>222.9281</b>	<b>222.9281</b>	<b>5.5200e-003</b>	<b>7.5700e-003</b>	<b>225.3221</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Site Preparation - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.308 1	3,687.308 1	1.1926		3,717.121 9
<b>Total</b>	<b>2.6595</b>	<b>27.5242</b>	<b>18.2443</b>	<b>0.0381</b>	<b>19.6570</b>	<b>1.2660</b>	<b>20.9230</b>	<b>10.1025</b>	<b>1.1647</b>	<b>11.2672</b>		<b>3,687.308 1</b>	<b>3,687.308 1</b>	<b>1.1926</b>		<b>3,717.121 9</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.4100e-003	0.2413	0.0852	1.2800e-003	0.0473	1.9400e-003	0.0492	0.0136	1.8500e-003	0.0155		137.5820	137.5820	3.5600e-003	0.0203	143.7145
Worker	0.0790	0.0538	0.6790	2.0400e-003	0.2532	1.2300e-003	0.2544	0.0671	1.1300e-003	0.0683		208.7797	208.7797	4.9200e-003	5.3300e-003	210.4905
<b>Total</b>	<b>0.0854</b>	<b>0.2951</b>	<b>0.7643</b>	<b>3.3200e-003</b>	<b>0.3005</b>	<b>3.1700e-003</b>	<b>0.3036</b>	<b>0.0807</b>	<b>2.9800e-003</b>	<b>0.0837</b>		<b>346.3617</b>	<b>346.3617</b>	<b>8.4800e-003</b>	<b>0.0256</b>	<b>354.2050</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.3 Site Preparation - 2023**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	1.2097	33.7214	22.9600	0.0381		0.9462	0.9462		0.9462	0.9462	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9
<b>Total</b>	<b>1.2097</b>	<b>33.7214</b>	<b>22.9600</b>	<b>0.0381</b>	<b>19.6570</b>	<b>0.9462</b>	<b>20.6032</b>	<b>10.1025</b>	<b>0.9462</b>	<b>11.0486</b>	<b>0.0000</b>	<b>3,687.308 1</b>	<b>3,687.308 1</b>	<b>1.1926</b>		<b>3,717.121 9</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.4100e-003	0.2413	0.0852	1.2800e-003	0.0473	1.9400e-003	0.0492	0.0136	1.8500e-003	0.0155		137.5820	137.5820	3.5600e-003	0.0203	143.7145
Worker	0.0790	0.0538	0.6790	2.0400e-003	0.2532	1.2300e-003	0.2544	0.0671	1.1300e-003	0.0683		208.7797	208.7797	4.9200e-003	5.3300e-003	210.4905
<b>Total</b>	<b>0.0854</b>	<b>0.2951</b>	<b>0.7643</b>	<b>3.3200e-003</b>	<b>0.3005</b>	<b>3.1700e-003</b>	<b>0.3036</b>	<b>0.0807</b>	<b>2.9800e-003</b>	<b>0.0837</b>		<b>346.3617</b>	<b>346.3617</b>	<b>8.4800e-003</b>	<b>0.0256</b>	<b>354.2050</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Grading - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
<b>Total</b>	<b>3.3217</b>	<b>34.5156</b>	<b>28.0512</b>	<b>0.0621</b>	<b>9.2036</b>	<b>1.4245</b>	<b>10.6281</b>	<b>3.6538</b>	<b>1.3105</b>	<b>4.9643</b>		<b>6,011.4777</b>	<b>6,011.4777</b>	<b>1.9442</b>		<b>6,060.0836</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.4600e-003	0.2319	0.0682	1.1300e-003	0.0350	2.3200e-003	0.0373	9.6000e-003	2.2200e-003	0.0118		122.6191	122.6191	5.2100e-003	0.0194	128.5411
Vendor	6.4100e-003	0.2413	0.0852	1.2800e-003	0.0473	1.9400e-003	0.0492	0.0136	1.8500e-003	0.0155		137.5820	137.5820	3.5600e-003	0.0203	143.7145
Worker	0.0878	0.0598	0.7545	2.2700e-003	0.2813	1.3700e-003	0.2827	0.0746	1.2600e-003	0.0759		231.9775	231.9775	5.4700e-003	5.9200e-003	233.8783
<b>Total</b>	<b>0.0987</b>	<b>0.5330</b>	<b>0.9079</b>	<b>4.6800e-003</b>	<b>0.3636</b>	<b>5.6300e-003</b>	<b>0.3692</b>	<b>0.0978</b>	<b>5.3300e-003</b>	<b>0.1031</b>		<b>492.1786</b>	<b>492.1786</b>	<b>0.0142</b>	<b>0.0456</b>	<b>506.1339</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.4 Grading - 2023**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	1.8106	51.2386	36.7226	0.0621		1.3333	1.3333		1.3333	1.3333	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
<b>Total</b>	<b>1.8106</b>	<b>51.2386</b>	<b>36.7226</b>	<b>0.0621</b>	<b>9.2036</b>	<b>1.3333</b>	<b>10.5369</b>	<b>3.6538</b>	<b>1.3333</b>	<b>4.9871</b>	<b>0.0000</b>	<b>6,011.4777</b>	<b>6,011.4777</b>	<b>1.9442</b>		<b>6,060.0836</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	4.4600e-003	0.2319	0.0682	1.1300e-003	0.0350	2.3200e-003	0.0373	9.6000e-003	2.2200e-003	0.0118		122.6191	122.6191	5.2100e-003	0.0194	128.5411
Vendor	6.4100e-003	0.2413	0.0852	1.2800e-003	0.0473	1.9400e-003	0.0492	0.0136	1.8500e-003	0.0155		137.5820	137.5820	3.5600e-003	0.0203	143.7145
Worker	0.0878	0.0598	0.7545	2.2700e-003	0.2813	1.3700e-003	0.2827	0.0746	1.2600e-003	0.0759		231.9775	231.9775	5.4700e-003	5.9200e-003	233.8783
<b>Total</b>	<b>0.0987</b>	<b>0.5330</b>	<b>0.9079</b>	<b>4.6800e-003</b>	<b>0.3636</b>	<b>5.6300e-003</b>	<b>0.3692</b>	<b>0.0978</b>	<b>5.3300e-003</b>	<b>0.1031</b>		<b>492.1786</b>	<b>492.1786</b>	<b>0.0142</b>	<b>0.0456</b>	<b>506.1339</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>		<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0320	1.2065	0.4261	6.4100e-003	0.2365	9.6800e-003	0.2461	0.0681	9.2600e-003	0.0773		687.9099	687.9099	0.0178	0.1014	718.5725
Worker	0.5004	0.3410	4.3005	0.0129	1.6034	7.7800e-003	1.6111	0.4252	7.1600e-003	0.4323		1,322.2715	1,322.2715	0.0312	0.0338	1,333.1063
<b>Total</b>	<b>0.5325</b>	<b>1.5475</b>	<b>4.7266</b>	<b>0.0193</b>	<b>1.8398</b>	<b>0.0175</b>	<b>1.8573</b>	<b>0.4932</b>	<b>0.0164</b>	<b>0.5097</b>		<b>2,010.1814</b>	<b>2,010.1814</b>	<b>0.0489</b>	<b>0.1352</b>	<b>2,051.6787</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2023**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0809	23.5544	17.8738	0.0269		0.9036	0.9036		0.9036	0.9036	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>1.0809</b>	<b>23.5544</b>	<b>17.8738</b>	<b>0.0269</b>		<b>0.9036</b>	<b>0.9036</b>		<b>0.9036</b>	<b>0.9036</b>	<b>0.0000</b>	<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0320	1.2065	0.4261	6.4100e-003	0.2365	9.6800e-003	0.2461	0.0681	9.2600e-003	0.0773		687.9099	687.9099	0.0178	0.1014	718.5725
Worker	0.5004	0.3410	4.3005	0.0129	1.6034	7.7800e-003	1.6111	0.4252	7.1600e-003	0.4323		1,322.2715	1,322.2715	0.0312	0.0338	1,333.1063
<b>Total</b>	<b>0.5325</b>	<b>1.5475</b>	<b>4.7266</b>	<b>0.0193</b>	<b>1.8398</b>	<b>0.0175</b>	<b>1.8573</b>	<b>0.4932</b>	<b>0.0164</b>	<b>0.5097</b>		<b>2,010.1814</b>	<b>2,010.1814</b>	<b>0.0489</b>	<b>0.1352</b>	<b>2,051.6787</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
<b>Total</b>	<b>1.4716</b>	<b>13.4438</b>	<b>16.1668</b>	<b>0.0270</b>		<b>0.6133</b>	<b>0.6133</b>		<b>0.5769</b>	<b>0.5769</b>		<b>2,555.6989</b>	<b>2,555.6989</b>	<b>0.6044</b>		<b>2,570.8077</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0311	1.2188	0.4182	6.3300e-003	0.2365	9.5300e-003	0.2460	0.0681	9.1200e-003	0.0772		678.4871	678.4871	0.0172	0.1000	708.7168
Worker	0.4665	0.3021	4.0044	0.0126	1.6034	7.4800e-003	1.6108	0.4252	6.8800e-003	0.4321		1,294.2005	1,294.2005	0.0282	0.0312	1,304.2105
<b>Total</b>	<b>0.4976</b>	<b>1.5209</b>	<b>4.4226</b>	<b>0.0189</b>	<b>1.8398</b>	<b>0.0170</b>	<b>1.8568</b>	<b>0.4932</b>	<b>0.0160</b>	<b>0.5092</b>		<b>1,972.6877</b>	<b>1,972.6877</b>	<b>0.0454</b>	<b>0.1312</b>	<b>2,012.9273</b>



IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.5 Building Construction - 2024**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0809	23.5544	17.8738	0.0270		0.9036	0.9036		0.9036	0.9036	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
<b>Total</b>	<b>1.0809</b>	<b>23.5544</b>	<b>17.8738</b>	<b>0.0270</b>		<b>0.9036</b>	<b>0.9036</b>		<b>0.9036</b>	<b>0.9036</b>	<b>0.0000</b>	<b>2,555.6989</b>	<b>2,555.6989</b>	<b>0.6044</b>		<b>2,570.8077</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0311	1.2188	0.4182	6.3300e-003	0.2365	9.5300e-003	0.2460	0.0681	9.1200e-003	0.0772		678.4871	678.4871	0.0172	0.1000	708.7168
Worker	0.4665	0.3021	4.0044	0.0126	1.6034	7.4800e-003	1.6108	0.4252	6.8800e-003	0.4321		1,294.2005	1,294.2005	0.0282	0.0312	1,304.2105
<b>Total</b>	<b>0.4976</b>	<b>1.5209</b>	<b>4.4226</b>	<b>0.0189</b>	<b>1.8398</b>	<b>0.0170</b>	<b>1.8568</b>	<b>0.4932</b>	<b>0.0160</b>	<b>0.5092</b>		<b>1,972.6877</b>	<b>1,972.6877</b>	<b>0.0454</b>	<b>0.1312</b>	<b>2,012.9273</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Paving - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	1.0500					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>2.0382</b>	<b>9.5246</b>	<b>14.6258</b>	<b>0.0228</b>		<b>0.4685</b>	<b>0.4685</b>		<b>0.4310</b>	<b>0.4310</b>		<b>2,207.547 2</b>	<b>2,207.547 2</b>	<b>0.7140</b>		<b>2,225.396 3</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0614	0.0397	0.5269	1.6500e-003	0.2110	9.8000e-004	0.2120	0.0559	9.1000e-004	0.0569		170.2895	170.2895	3.7100e-003	4.1100e-003	171.6067
<b>Total</b>	<b>0.0614</b>	<b>0.0397</b>	<b>0.5269</b>	<b>1.6500e-003</b>	<b>0.2110</b>	<b>9.8000e-004</b>	<b>0.2120</b>	<b>0.0559</b>	<b>9.1000e-004</b>	<b>0.0569</b>		<b>170.2895</b>	<b>170.2895</b>	<b>3.7100e-003</b>	<b>4.1100e-003</b>	<b>171.6067</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.6 Paving - 2024**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9311	20.1146	17.2957	0.0228		0.6670	0.6670		0.6670	0.6670	0.0000	2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	1.0500					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.9811</b>	<b>20.1146</b>	<b>17.2957</b>	<b>0.0228</b>		<b>0.6670</b>	<b>0.6670</b>		<b>0.6670</b>	<b>0.6670</b>	<b>0.0000</b>	<b>2,207.547 2</b>	<b>2,207.547 2</b>	<b>0.7140</b>		<b>2,225.396 3</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0614	0.0397	0.5269	1.6500e-003	0.2110	9.8000e-004	0.2120	0.0559	9.1000e-004	0.0569		170.2895	170.2895	3.7100e-003	4.1100e-003	171.6067
<b>Total</b>	<b>0.0614</b>	<b>0.0397</b>	<b>0.5269</b>	<b>1.6500e-003</b>	<b>0.2110</b>	<b>9.8000e-004</b>	<b>0.2120</b>	<b>0.0559</b>	<b>9.1000e-004</b>	<b>0.0569</b>		<b>170.2895</b>	<b>170.2895</b>	<b>3.7100e-003</b>	<b>4.1100e-003</b>	<b>171.6067</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Architectural Coating - 2024**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	198.7499					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>198.9306</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0941	0.0609	0.8079	2.5300e-003	0.3235	1.5100e-003	0.3250	0.0858	1.3900e-003	0.0872		261.1106	261.1106	5.6900e-003	6.3000e-003	263.1302
<b>Total</b>	<b>0.0941</b>	<b>0.0609</b>	<b>0.8079</b>	<b>2.5300e-003</b>	<b>0.3235</b>	<b>1.5100e-003</b>	<b>0.3250</b>	<b>0.0858</b>	<b>1.3900e-003</b>	<b>0.0872</b>		<b>261.1106</b>	<b>261.1106</b>	<b>5.6900e-003</b>	<b>6.3000e-003</b>	<b>263.1302</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**3.7 Architectural Coating - 2024**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	198.7499					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1139	2.3524	1.8324	2.9700e-003		0.0951	0.0951		0.0951	0.0951	0.0000	281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>198.8638</b>	<b>2.3524</b>	<b>1.8324</b>	<b>2.9700e-003</b>		<b>0.0951</b>	<b>0.0951</b>		<b>0.0951</b>	<b>0.0951</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0941	0.0609	0.8079	2.5300e-003	0.3235	1.5100e-003	0.3250	0.0858	1.3900e-003	0.0872		261.1106	261.1106	5.6900e-003	6.3000e-003	263.1302
<b>Total</b>	<b>0.0941</b>	<b>0.0609</b>	<b>0.8079</b>	<b>2.5300e-003</b>	<b>0.3235</b>	<b>1.5100e-003</b>	<b>0.3250</b>	<b>0.0858</b>	<b>1.3900e-003</b>	<b>0.0872</b>		<b>261.1106</b>	<b>261.1106</b>	<b>5.6900e-003</b>	<b>6.3000e-003</b>	<b>263.1302</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.4842	2.4487	15.9232	0.0386	4.3441	0.0310	4.3751	1.1586	0.0290	1.1876		4,035.0170	4,035.0170	0.2097	0.1913	4,097.2745
Unmitigated	1.4842	2.4487	15.9232	0.0386	4.3441	0.0310	4.3751	1.1586	0.0290	1.1876		4,035.0170	4,035.0170	0.2097	0.1913	4,097.2745

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Refrigerated Warehouse-No Rail	57.24	57.24	57.24	245,314	245,314
Unrefrigerated Warehouse-No Rail	422.82	422.82	422.82	1,812,087	1,812,087
Total	480.06	480.06	480.06	2,057,401	2,057,401

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Refrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.543085	0.056300	0.173085	0.134258	0.025645	0.007009	0.011926	0.017481	0.000552	0.000248	0.024848	0.000956	0.004606
Parking Lot	0.543085	0.056300	0.173085	0.134258	0.025645	0.007009	0.011926	0.017481	0.000552	0.000248	0.024848	0.000956	0.004606
Refrigerated Warehouse-No Rail	0.543085	0.056300	0.173085	0.134258	0.025645	0.007009	0.011926	0.017481	0.000552	0.000248	0.024848	0.000956	0.004606
Unrefrigerated Warehouse-No Rail	0.543085	0.056300	0.173085	0.134258	0.025645	0.007009	0.011926	0.017481	0.000552	0.000248	0.024848	0.000956	0.004606

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
NaturalGas Mitigated	0.0557	0.5065	0.4255	3.0400e-003		0.0385	0.0385		0.0385	0.0385		607.8160	607.8160	0.0117	0.0111	611.4279
NaturalGas Unmitigated	0.0557	0.5065	0.4255	3.0400e-003		0.0385	0.0385		0.0385	0.0385		607.8160	607.8160	0.0117	0.0111	611.4279

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - Natural Gas**

Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	3826.6	0.0413	0.3752	0.3151	2.2500e-003		0.0285	0.0285		0.0285	0.0285		450.1886	450.1886	8.6300e-003	8.2500e-003	452.8638
Unrefrigerated Warehouse-No Rail	1339.83	0.0145	0.1314	0.1103	7.9000e-004		9.9800e-003	9.9800e-003		9.9800e-003	9.9800e-003		157.6274	157.6274	3.0200e-003	2.8900e-003	158.5641
<b>Total</b>		<b>0.0557</b>	<b>0.5065</b>	<b>0.4255</b>	<b>3.0400e-003</b>		<b>0.0385</b>	<b>0.0385</b>		<b>0.0385</b>	<b>0.0385</b>		<b>607.8160</b>	<b>607.8160</b>	<b>0.0117</b>	<b>0.0111</b>	<b>611.4279</b>



IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**5.2 Energy by Land Use - NaturalGas**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Refrigerated Warehouse-No Rail	3.8266	0.0413	0.3752	0.3151	2.2500e-003		0.0285	0.0285		0.0285	0.0285		450.1886	450.1886	8.6300e-003	8.2500e-003	452.8638
Unrefrigerated Warehouse-No Rail	1.33983	0.0145	0.1314	0.1103	7.9000e-004		9.9800e-003	9.9800e-003		9.9800e-003	9.9800e-003		157.6274	157.6274	3.0200e-003	2.8900e-003	158.5641
<b>Total</b>		<b>0.0557</b>	<b>0.5065</b>	<b>0.4255</b>	<b>3.0400e-003</b>		<b>0.0385</b>	<b>0.0385</b>		<b>0.0385</b>	<b>0.0385</b>		<b>607.8160</b>	<b>607.8160</b>	<b>0.0117</b>	<b>0.0111</b>	<b>611.4279</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.1661	6.7000e-004	0.0743	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1598	0.1598	4.2000e-004		0.1702
Unmitigated	6.1661	6.7000e-004	0.0743	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1598	0.1598	4.2000e-004		0.1702

**6.2 Area by SubCategory**

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7079					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.4514					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.8400e-003	6.7000e-004	0.0743	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1598	0.1598	4.2000e-004		0.1702
<b>Total</b>	<b>6.1661</b>	<b>6.7000e-004</b>	<b>0.0743</b>	<b>1.0000e-005</b>		<b>2.6000e-004</b>	<b>2.6000e-004</b>		<b>2.6000e-004</b>	<b>2.6000e-004</b>		<b>0.1598</b>	<b>0.1598</b>	<b>4.2000e-004</b>		<b>0.1702</b>

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7079					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.4514					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.8400e-003	6.7000e-004	0.0743	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004		0.1598	0.1598	4.2000e-004		0.1702
<b>Total</b>	<b>6.1661</b>	<b>6.7000e-004</b>	<b>0.0743</b>	<b>1.0000e-005</b>		<b>2.6000e-004</b>	<b>2.6000e-004</b>		<b>2.6000e-004</b>	<b>2.6000e-004</b>		<b>0.1598</b>	<b>0.1598</b>	<b>4.2000e-004</b>		<b>0.1702</b>

**7.0 Water Detail**

**7.1 Mitigation Measures Water**

IE Distribution Center #14 (Construction) - San Bernardino-South Coast County, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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## **Matthew F. Hagemann, P.G., C.Hg., QSD, QSP**

**Geologic and Hydrogeologic Characterization  
Investigation and Remediation Strategies  
Litigation Support and Testifying Expert  
Industrial Stormwater Compliance  
CEQA Review**

### **Education:**

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.

B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

### **Professional Certifications:**

California Professional Geologist

California Certified Hydrogeologist

Qualified SWPPP Developer and Practitioner

### **Professional Experience:**

Matt has 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, Matt has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014, 2017;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

**Senior Regulatory and Litigation Support Analyst:**

With SWAPE, Matt’s responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 100 industrial facilities.
- Expert witness on numerous cases including, for example, perfluorooctanoic acid (PFOA) contamination of groundwater, MTBE litigation, air toxins at hazards at a school, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

With Komex H2O Science Inc., Matt’s duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

**Executive Director:**

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

**Hydrogeology:**

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted

public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nationwide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

### **Policy:**

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9.

Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, *Oxygenates in Water: Critical Information and Research Needs*.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific



principles into the policy-making process.

- Established national protocol for the peer review of scientific documents.

### **Geology:**

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

### **Teaching:**

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt is currently a part time geology instructor at Golden West College in Huntington Beach, California where he taught from 2010 to 2014 and in 2017.

### **Invited Testimony, Reports, Papers and Presentations:**

**Hagemann, M.F.**, 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

**Hagemann, M.F.**, 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

**Hagemann, M.F.**, 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Colorado.

**Hagemann, M.F.**, 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

**Hagemann, M.F.**, 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

**Hagemann, M.F.**, 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

**Hagemann, M.F.**, 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

**Hagemann, M.F.**, 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

**Hagemann, M.F.**, 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal representatives, Parker, AZ.

**Hagemann, M.F.**, 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

**Hagemann, M.F.**, 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

**Hagemann, M.F.**, 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

**Hagemann, M.F.**, 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

**Hagemann, M.F.**, 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

**Hagemann, M.F.**, 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

**Hagemann, M.F.**, 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

**Hagemann, M.F.**, 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

**Hagemann, M.F.**, 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

**Hagemann, M.F.**, 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

**Hagemann, M.F.**, 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

**Hagemann, M.F.**, and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F.** 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

**Hagemann, M.F.**, 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

**Hagemann, M.F.**, 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

**Hagemann, M.F.**, and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

**Hagemann, M.F.**, Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

**Hagemann, M. F.**, Fukunaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

**Hagemann, M.F.**, 1994. Groundwater Characterization and Clean up at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

**Hagemann, M.F.** and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

**Hagemann, M.F.**, 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

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**Hagemann, M.F.**, 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

**Other Experience:**

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.



Technical Consultation, Data Analysis and  
Litigation Support for the Environment

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## ***Paul Rosenfeld, Ph.D.***

*Principal Environmental Chemist*

**Chemical Fate and Transport & Air Dispersion Modeling**

**Risk Assessment & Remediation Specialist**

### **Education**

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Focus on wastewater treatment.

### **Professional Experience**

Dr. Rosenfeld has over 25 years of experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, industrial, military and agricultural sources, unconventional oil drilling operations, and locomotive and construction engines. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities. Dr. Rosenfeld has also successfully modeled exposure to contaminants distributed by water systems and via vapor intrusion.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, creosote, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at sites and has testified as an expert witness on numerous cases involving exposure to soil, water and air contaminants from industrial, railroad, agricultural, and military sources.

## **Professional History:**

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner  
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)  
UCLA School of Public Health; 2003 to 2006; Adjunct Professor  
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator  
UCLA Institute of the Environment, 2001-2002; Research Associate  
Komex H<sub>2</sub>O Science, 2001 to 2003; Senior Remediation Scientist  
National Groundwater Association, 2002-2004; Lecturer  
San Diego State University, 1999-2001; Adjunct Professor  
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager  
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager  
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor  
King County, Seattle, 1996 – 1999; Scientist  
James River Corp., Washington, 1995-96; Scientist  
Big Creek Lumber, Davenport, California, 1995; Scientist  
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist  
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

## **Publications:**

**Rosenfeld P. E.**, Spaeth K., Hallman R., Bressler R., Smith, G., (2022) Cancer Risk and Diesel Exhaust Exposure Among Railroad Workers. *Water Air Soil Pollution*. **233**, 171.

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health*. 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P.**, (2015) Modeling the Effect of Refinery Emission On Residential Property Value. *Journal of Real Estate Research*. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.**, Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermid and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

**Rosenfeld, P.E.** & Feng, L. (2011). *The Risks of Hazardous Waste*. Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries*. Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P.** (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution*, 123 (17), 319-327.

Tam L. K., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

**Rosenfeld, P.E.**, J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

**Rosenfeld, P. E.**, M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities*. Boston Massachusetts: Elsevier Publishing

**Rosenfeld, P.E.**, and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

**Rosenfeld P. E.**, J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004*. New Orleans, October 2-6, 2004.

**Rosenfeld, P.E.**, and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

**Rosenfeld, P.E.**, and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49( 9), 171-178.

**Rosenfeld, P. E.**, Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

**Rosenfeld, P.E.**, Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office, Publications Clearinghouse (MS-6)*, Sacramento, CA Publication #442-02-008.

**Rosenfeld, P.E.**, and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

**Rosenfeld, P.E.**, and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality*. 29, 1662-1668.

**Rosenfeld, P.E.**, C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

**Rosenfeld, P.E.**, and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

**Rosenfeld, P.E.**, and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld**. (1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

**Rosenfeld, P. E.** (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

**Rosenfeld, P. E.** (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

**Rosenfeld, P. E.** (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

**Rosenfeld, P. E.** (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

**Rosenfeld, P. E.** (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

## **Presentations:**

**Rosenfeld, P.E.**, "The science for Perfluorinated Chemicals (PFAS): What makes remediation so hard?" Law Seminars International, (May 9-10, 2018) 800 Fifth Avenue, Suite 101 Seattle, WA.

**Rosenfeld, P.E.**, Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society*. Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

**Rosenfeld, P.E.** (April 19-23, 2009). Perfluorooctanoic Acid (PFOA) and Perfluorooctane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

**Rosenfeld, P.E.** (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P.** (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

**Rosenfeld, P. E.** (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23<sup>rd</sup> Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.



**Rosenfeld, P. E.** (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23<sup>rd</sup> Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

**Rosenfeld, P. E.** (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. *The 23<sup>rd</sup> Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

**Rosenfeld P. E.** (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

**Rosenfeld P. E.** (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florida, Alabama. *The AEHS Annual Meeting*. Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.**, Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.**, Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition*. Lecture conducted from Boston Massachusetts.

**Paul Rosenfeld Ph.D.** (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference*. Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

**Paul Rosenfeld Ph.D.** (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

**Paul Rosenfeld Ph.D.** (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel in Irvine, California.

**Paul Rosenfeld Ph.D.** (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference*. Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

**Paul Rosenfeld Ph.D.** (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

**Paul Rosenfeld Ph.D.** (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

**Paul Rosenfeld Ph.D.** (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

**Paul Rosenfeld, Ph.D.** and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

**Paul Rosenfeld, Ph.D.** (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

**Paul Rosenfeld, Ph.D.** (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

**Rosenfeld, P. E.**, Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference Orlando, FL*.

**Paul Rosenfeld, Ph.D.** and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants..* Lecture conducted from Hyatt Regency Phoenix Arizona.

**Paul Rosenfeld, Ph.D.** (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

**Paul Rosenfeld, Ph.D.** (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

**Rosenfeld, P.E.** and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

**Rosenfeld, P.E.** and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

**Rosenfeld, P.E.** and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

**Rosenfeld, P.E.** and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conference*. Lecture conducted from Indianapolis, Maryland.

**Rosenfeld, P.E.** (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation*. Lecture conducted from Anaheim California.

**Rosenfeld, P.E.** (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest*. Lecture conducted from Ocean Shores, California.

**Rosenfeld, P.E.** (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

**Rosenfeld, P.E.**, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

**Rosenfeld, P.E.**, and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

**Rosenfeld, P.E.,** C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell*. Lecture conducted from Seattle Washington.

**Rosenfeld, P.E.,** C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest*. Lecture conducted from Lake Chelan, Washington.

**Rosenfeld, P.E.,** C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

**Rosenfeld, P.E.,** C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

## **Teaching Experience:**

UCLA Department of Environmental Health (Summer 2003 through 2010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

## **Academic Grants Awarded:**

California Integrated Waste Management Board. \$41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: \$10,000 grant awarded to San Diego State University. Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. \$100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. \$20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: \$10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: \$15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. \$500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

## **Deposition and/or Trial Testimony:**

In the Superior Court of the State of California, County of San Bernardino  
Billy Wildrick, Plaintiff vs. BNSF Railway Company  
Case No. CIVDS1711810  
Rosenfeld Deposition 10-17-2022

In the State Court of Bibb County, State of Georgia  
Richard Hutcherson, Plaintiff vs Norfolk Southern Railway Company  
Case No. 10-SCCV-092007  
Rosenfeld Deposition 10-6-2022

In the Civil District Court of the Parish of Orleans, State of Louisiana  
Millard Clark, Plaintiff vs. Dixie Carriers, Inc. et al.  
Case No. 2020-03891  
Rosenfeld Deposition 9-15-2022

In The Circuit Court of Livingston County, State of Missouri, Circuit Civil Division  
Shirley Ralls, Plaintiff vs. Canadian Pacific Railway and Soo Line Railroad  
Case No. 18-LV-CC0020  
Rosenfeld Deposition 9-7-2022

In The Circuit Court of the 13th Judicial Circuit Court, Hillsborough County, Florida Civil Division  
Jonny C. Daniels, Plaintiff vs. CSX Transportation Inc.  
Case No. 20-CA-5502  
Rosenfeld Deposition 9-1-2022

In The Circuit Court of St. Louis County, State of Missouri  
Kieth Luke et. al. Plaintiff vs. Monsanto Company et. al.  
Case No. 19SL-CC03191  
Rosenfeld Deposition 8-25-2022

In The Circuit Court of the 13th Judicial Circuit Court, Hillsborough County, Florida Civil Division  
Jeffery S. Lamotte, Plaintiff vs. CSX Transportation Inc.  
Case No. NO. 20-CA-0049  
Rosenfeld Deposition 8-22-2022

In State of Minnesota District Court, County of St. Louis Sixth Judicial District  
Greg Bean, Plaintiff vs. Soo Line Railroad Company  
Case No. 69-DU-CV-21-760  
Rosenfeld Deposition 8-17-2022

In United States District Court Western District of Washington at Tacoma, Washington  
John D. Fitzgerald Plaintiff vs. BNSF  
Case No. 3:21-cv-05288-RJB  
Rosenfeld Deposition 8-11-2022

In Circuit Court of the Sixth Judicial Circuit, Macon Illinois  
Rocky Bennyhoff Plaintiff vs. Norfolk Southern  
Case No. 20-L-56  
Rosenfeld Deposition 8-3-2022

In Court of Common Pleas, Hamilton County Ohio  
Joe Briggins Plaintiff vs. CSX  
Case No. A2004464  
Rosenfeld Deposition 6-17-2022

In the Superior Court of the State of California, County of Kern  
George LaFazia vs. BNSF Railway Company.  
Case No. BCV-19-103087  
Rosenfeld Deposition 5-17-2022

In the Circuit Court of Cook County Illinois  
Bobby Earles vs. Penn Central et. al.  
Case No. 2020-L-000550  
Rosenfeld Deposition 4-16-2022

In United States District Court Easter District of Florida  
Albert Hartman Plaintiff vs. Illinois Central  
Case No. 2:20-cv-1633  
Rosenfeld Deposition 4-4-2022

In the Circuit Court of the 4<sup>th</sup> Judicial Circuit, in and For Duval County, Florida  
Barbara Steele vs. CSX Transportation  
Case No.16-219-Ca-008796  
Rosenfeld Deposition 3-15-2022

In United States District Court Easter District of New York  
Romano et al. vs. Northrup Grumman Corporation  
Case No. 16-cv-5760  
Rosenfeld Deposition 3-10-2022

In the Circuit Court of Cook County Illinois  
Linda Benjamin vs. Illinois Central  
Case No. No. 2019 L 007599  
Rosenfeld Deposition 1-26-2022

In the Circuit Court of Cook County Illinois  
Donald Smith vs. Illinois Central  
Case No. No. 2019 L 003426  
Rosenfeld Deposition 1-24-2022

In the Circuit Court of Cook County Illinois  
Jan Holeman vs. BNSF  
Case No. 2019 L 000675  
Rosenfeld Deposition 1-18-2022

In the State Court of Bibb County State of Georgia  
Dwayne B. Garrett vs. Norfolk Southern  
Case No. 20-SCCV-091232  
Rosenfeld Deposition 11-10-2021

In the Circuit Court of Cook County Illinois  
Joseph Ruepke vs. BNSF  
Case No. 2019 L 007730  
Rosenfeld Deposition 11-5-2021

In the United States District Court For the District of Nebraska  
Steven Gillett vs. BNSF  
Case No. 4:20-cv-03120  
Rosenfeld Deposition 10-28-2021

In the Montana Thirteenth District Court of Yellowstone County  
James Eadus vs. Soo Line Railroad and BNSF  
Case No. DV 19-1056  
Rosenfeld Deposition 10-21-2021

In the Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois  
Martha Custer et al.cvs. Cerro Flow Products, Inc.  
Case No. 0i9-L-2295  
Rosenfeld Deposition 5-14-2021  
Trial October 8-4-2021

In the Circuit Court of Cook County Illinois  
Joseph Rafferty vs. Consolidated Rail Corporation and National Railroad Passenger Corporation d/b/a  
AMTRAK,  
Case No. 18-L-6845  
Rosenfeld Deposition 6-28-2021

In the United States District Court For the Northern District of Illinois  
Theresa Romcoe vs. Northeast Illinois Regional Commuter Railroad Corporation d/b/a METRA Rail  
Case No. 17-cv-8517  
Rosenfeld Deposition 5-25-2021

In the Superior Court of the State of Arizona In and For the Cunty of Maricopa  
Mary Tryon et al. vs. The City of Pheonix v. Cox Cactus Farm, L.L.C., Utah Shelter Systems, Inc.  
Case No. CV20127-094749  
Rosenfeld Deposition 5-7-2021

In the United States District Court for the Eastern District of Texas Beaumont Division  
Robinson, Jeremy et al vs. CNA Insurance Company et al.  
Case No. 1:17-cv-000508  
Rosenfeld Deposition 3-25-2021

In the Superior Court of the State of California, County of San Bernardino  
Gary Garner, Personal Representative for the Estate of Melvin Garner vs. BNSF Railway Company.  
Case No. 1720288  
Rosenfeld Deposition 2-23-2021

In the Superior Court of the State of California, County of Los Angeles, Spring Street Courthouse  
Benny M Rodriguez vs. Union Pacific Railroad, A Corporation, et al.  
Case No. 18STCV01162  
Rosenfeld Deposition 12-23-2020

In the Circuit Court of Jackson County, Missouri  
Karen Cornwell, Plaintiff, vs. Marathon Petroleum, LP, Defendant.  
Case No. 1716-CV10006  
Rosenfeld Deposition 8-30-2019

In the United States District Court For The District of New Jersey  
Duarte et al, Plaintiffs, vs. United States Metals Refining Company et. al. Defendant.  
Case No. 2:17-cv-01624-ES-SCM  
Rosenfeld Deposition 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division  
M/T Carla Maersk vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS “Conti Perdido” Defendant.  
Case No. 3:15-CV-00106 consolidated with 3:15-CV-00237  
Rosenfeld Deposition 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica  
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants  
Case No. BC615636  
Rosenfeld Deposition 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica  
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants  
Case No. BC646857  
Rosenfeld Deposition 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado  
Bells et al. Plaintiffs vs. The 3M Company et al., Defendants  
Case No. 1:16-cv-02531-RBJ  
Rosenfeld Deposition 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112<sup>th</sup> Judicial District  
Phillip Bales et al., Plaintiff vs. Dow Agrosiences, LLC, et al., Defendants  
Cause No. 1923  
Rosenfeld Deposition 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa  
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants  
Cause No. C12-01481  
Rosenfeld Deposition 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois  
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants  
Case No.: No. 0i9-L-2295  
Rosenfeld Deposition 8-23-2017

In United States District Court For The Southern District of Mississippi  
Guy Manuel vs. The BP Exploration et al., Defendants  
Case No. 1:19-cv-00315-RHW  
Rosenfeld Deposition 4-22-2020

In The Superior Court of the State of California, For The County of Los Angeles  
Warrn Gilbert and Penny Gilbert, Plaintiff vs. BMW of North America LLC  
Case No. LC102019 (c/w BC582154)  
Rosenfeld Deposition 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division  
Brenda J. Cooper, et al., Plaintiffs, vs. Meritor Inc., et al., Defendants  
Case No. 4:16-cv-52-DMB-JVM  
Rosenfeld Deposition July 2017

In The Superior Court of the State of Washington, County of Snohomish  
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants  
Case No. 13-2-03987-5  
Rosenfeld Deposition, February 2017  
Trial March 2017

In The Superior Court of the State of California, County of Alameda  
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants  
Case No. RG14711115  
Rosenfeld Deposition September 2015

In The Iowa District Court In And For Poweshiek County  
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants  
Case No. LALA002187  
Rosenfeld Deposition August 2015

In The Circuit Court of Ohio County, West Virginia  
Robert Andrews, et al. v. Antero, et al.  
Civil Action No. 14-C-30000  
Rosenfeld Deposition June 2015

In The Iowa District Court for Muscatine County  
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant  
Case No. 4980  
Rosenfeld Deposition May 2015

In the Circuit Court of the 17<sup>th</sup> Judicial Circuit, in and For Broward County, Florida  
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.  
Case No. CACE07030358 (26)  
Rosenfeld Deposition December 2014

In the County Court of Dallas County Texas  
Lisa Parr et al, Plaintiff, vs. Aruba et al, Defendant.  
Case No. cc-11-01650-E  
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In the Court of Common Pleas of Tuscarawas County Ohio  
John Michael Abicht, et al., Plaintiffs, vs. Republic Services, Inc., et al., Defendants  
Case No. 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)  
Rosenfeld Deposition October 2012

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James K. Benefield, et al., Plaintiffs, vs. International Paper Company, Defendant.  
Civil Action No. 2:09-cv-232-WHA-TFM  
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In the Circuit Court of Jefferson County Alabama  
Jaeante Moss Anthony, et al., Plaintiffs, vs. Drummond Company Inc., et al., Defendants  
Civil Action No. CV 2008-2076  
Rosenfeld Deposition September 2010

In the United States District Court, Western District Lafayette Division  
Ackle et al., Plaintiffs, vs. Citgo Petroleum Corporation, et al., Defendants.  
Case No. 2:07CV1052  
Rosenfeld Deposition July 2009



**DATE:** November 21, 2023  
**TO:** Tracy Zinn, T&B Planning, Inc.  
**FROM:** Alex So, Urban Crossroads, Inc.  
**JOB NO:** 14539-01 VMT - Mitigation

## **IE DISTRIBUTION CENTER #14 VEHICLE MILES TRAVELED (VMT) MITIGATION ASSESSMENT**

Urban Crossroads, Inc. has prepared the following Vehicle Miles Traveled (VMT) Mitigation Assessment for the IE Distribution Center #14 (**Project**), which is located at 5355 E. Airport Drive in the City of Ontario.

### **BACKGROUND**

The IE Distribution Center #14 Vehicle Miles Traveled (VMT) Analysis (Urban Crossroads, Inc. January 3, 2023) (**VMT Analysis**) previously evaluated a single 270,377 square foot warehouse building.

The VMT Analysis concluded that the Project would result in a potentially significant VMT impact based on project generated VMT. More specifically, the Project was found to exceed the City's adopted impact threshold by 22.6% under baseline conditions, while the horizon year buildout condition would exceed the impact threshold by 28.5%. The purpose of this assessment is to evaluate potential trip reduction measures to reduce VMT to the extent feasible.

### **VMT REDUCTION MEASURES**

The effectiveness of trip reduction measures that have the ability to reduce VMT has been determined based on the California Air Pollution Control Officers Association (CAPCOA) Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity (December 2021) (**Handbook**) (1). The Handbook provides methods to quantify reductions in greenhouse gas emissions and for transportation related measures associated reductions in VMT. This evaluation will focus on relevant transportation measures as described by the Handbook.

### **SELECTING MEASURES**

When considering which transportation measures are applicable from the Handbook, factors such as project type, scale and locational context are each important considerations for determining measure applicability. Users of the Handbook must review the measure factsheets to determine those measures that align and are applicable with project characteristics.

## **PROJECT TYPE**

Project type is an important consideration when determining which measures are applicable for review. For example, measures associated with neighborhood design are likely not applicable to employment generation land use projects, whereas trip reduction programs to reduce employee commute VMT would not be applicable to a residential land use project.

## **SCALE**

It is important to note that measures can be applied at different scales or geographic levels. The Handbook states that, “some measures may only be applicable at the project-level, whereas others may be more appropriate within a broader planning context such as for a general plan or climate action plan.” The geographic levels considered in the Handbook include Project/Site and Plan/Community. Project/Site applies to measures that can reduce VMT at the scale of an individual development project or employer. Plan/Community refers to measures that reduce VMT at the scale of a specific plan, general plan or climate action plan. Transportation measures can be quantified at either the Project/Site scale or the Plan/Community scale, but never both.<sup>1</sup>

## **LOCATIONAL CONTEXT**

The Handbook states locational context is “used to identify trip reduction measures within the transportation sector that are appropriate in certain types of neighborhoods differentiated by transportation characteristics and level of development (e.g., urban, rural, suburban).” More specifically, rural, suburban and urban are defined as follows:

**Rural:** An area characterized by little development. Compared to urban and suburban areas, rural areas have a lower density of residences, higher numbers of single-family residences, and higher numbers of vehicle dependent land use patterns. Where applicable, the Handbook provides three land use distinctions within the rural locational context category—R<sub>a</sub>, R<sub>b</sub>, and R<sub>c</sub>. R<sub>a</sub> refers to rural areas within a master-planned community. These rural areas often include a broad offering of amenities and services, which may be accessed by walking or other alternative forms of transportation. R<sub>b</sub> refers to rural areas adjacent to a commuter rail station with convenient rail service to a major employment center. As the name implies, these rural areas have greater access to commuter rail as an alternative mode of transportation. R<sub>c</sub> refers to rural areas with transit service and that are near jobs/services.

**Suburban:** An area characterized by dispersed, low-density, single-use, automobile dependent land use patterns, usually outside of the central city. Also known as a suburb.

**Urban:** An area located within the central city with higher density land uses than in the suburbs. Often characterized by multi-family housing, tall office buildings and dense retail.

The Project’s locational context is determined to be suburban.

## **TRANSPORTATION MEASURES**

As noted in the Handbook, transportation measures “promote transit and alternative transportation, support use of alternatively fueled vehicles, or encourage land use planning

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<sup>1</sup> Handbook, Page 37

practices that reduce vehicle trips and vehicle miles traveled (VMT). Measures within the transportation sector are separated into six subsectors: Land Use, Neighborhood Design, Parking or Road Pricing Management, Transit, Trip Reduction Programs, and Clean Vehicles and Fuels.”<sup>2</sup> For the purposes of this evaluation, the Trip Reduction Programs subsector is most applicable to reducing employee commute VMT and would apply to the Project’s industrial land use.

**TRIP REDUCTION PROGRAMS SUBSECTOR**

Attachment A lists the measures within the Trip Reduction Programs subsector (i.e., T-5 through T-13 and T-23) as described in the Handbook along with each measure’s applicability to the Project. As the Project is being developed as a speculative building without a known tenant (i.e., employer), measures associated with commute trip reduction (CTR) programs and their related commute trip reduction strategies (e.g., have been excluded as they are not quantifiable, nor can their implementation be guaranteed and enforced.

The Project does have the ability to provide design features that would promote non-motorized transportation alternatives such as measure T-10 End-of-Trip Bicycle Facilities.

**T-10 END-OF-TRIP BICYCLE FACILITIES**

Measure T-10 Provide End-of-Trip Bicycle Facilities is listed in the Handbook as available to projects in a suburban setting. As described in the Handbook, “the measure will install and maintain end-of-trip facilities for employee use. End-of-trip facilities include bike parking, bike lockers, showers, and personal lockers. The provision and maintenance of secure bike parking and related facilities encourages commuting by bicycle, thereby reducing VMT and GHG emissions.”<sup>3</sup> The Fact Sheet for T-10 Provide End-of-Trip Bicycle Facilities was utilized to calculate the Project’s potential VMT reduction.

**TABLE 2: T-10 CALCULATION VARIABLES**

ID	Variable	Value	Unit	Source
A	Percent reduction in GHG emissions from project/site employee commute VMT	0.1-4.4	%	calculated
User Inputs				
	None			
Constants, Assumptions, and Available Defaults				
B	Bike mode adjustment factor	1.78 or 4.86 <sup>1</sup>	unitless	Buehler 2012
C	Existing bicycle trip length for all trips in region	2.2	miles	FHWA 2017a
D	Existing vehicle trip length for all trips in region	11.7	miles	FHWA 2017a
E	Existing bicycle mode share for work trips in region	0.4	%	FHWA 2017b
F	Existing vehicle mode share for work trips in region	95.3	%	FHWA 2017b

<sup>1</sup>The bike mode adjustment factor should be provided by the user based on type of bike facility. A study found that commuters with showers, lockers, and bike parking at work are associated with 4.86 times greater likelihood to commute by bicycle when compared to individuals without any bicycle facilities at work. Individuals with bike parking, but no showers and lockers at the workplace, are associated with 1.78 times greater likelihood to cycle to work than those without trip-end facilities.

$$A = \frac{C \times (E - (B \times E))}{D \times F}$$

<sup>2</sup> Handbook, Page 30

<sup>3</sup> Handbook, Page 133

$$0.1\% = \frac{2.2 \times (0.4\% - (1.78 \times 0.4\%))}{11.7 \times 95.3\%}$$

The Project will include building elements for bicycle trip end facilities (i.e., parking) for commuters that choose to bicycle as a mode of travel. This will promote an alternative mode choice of commuting for employees. As calculated, the Project will reduce VMT by 0.1%.

## **TOTAL VMT REDUCTIONS**

The 2021 Handbook states that effectiveness levels for multiple measures within a subsector may be multiplied to determine a combined effectiveness level. Because the combination of measures and independence of measures are complicated, the 2021 Handbook recommends that measure reductions within a subsector be multiplied unless the user can provide substantial evidence indicating that emission reductions are independent of one another and that they should therefore be added. Each subsector has a maximum allowable reduction. These were derived by combining the maximum allowable reduction of each individual non-mutually-exclusive measure within the subsector. As all the Project Design features above fall under the Subsector of "Trip Reduction Programs", the 2021 Handbook states that the "Trip Reduction Subsector" has a maximum reduction of 45%. Therefore, a project cannot exceed the maximum allowable reduction. 2021 Handbook provides the following equation for combining Subsector reductions:

$$Reduction_{Subsector} = 1 - [(1 - A) \times (1 - B) \times (1 - C) \dots]$$

Project's VMT reduction are as follows:

$$0.1\% = 1 - [(1 - 0.1\%)]$$

As outlined through the VMT reduction calculations presented above, with the inclusion of the VMT mitigation measure the Project is estimated to reduce its VMT impact by 0.1%, which would continue to exceed the City's VMT impact threshold.

Even with the inclusion of feasible VMT reduction measures, the Project is not able to reduce project generated VMT to a level of less than significant.

If you have any questions, please contact me directly at [aso@urbanxroads.com](mailto:aso@urbanxroads.com).

## REFERENCES

1. **CAPCOA.** *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* . December 2021.

**ATTACHMENT A**  
**TRIP REDUCTION PROGRAMS SUBSECTOR**

**TABLE A-1: TRIP REDUCTION PROGRAMS SUBSECTOR**

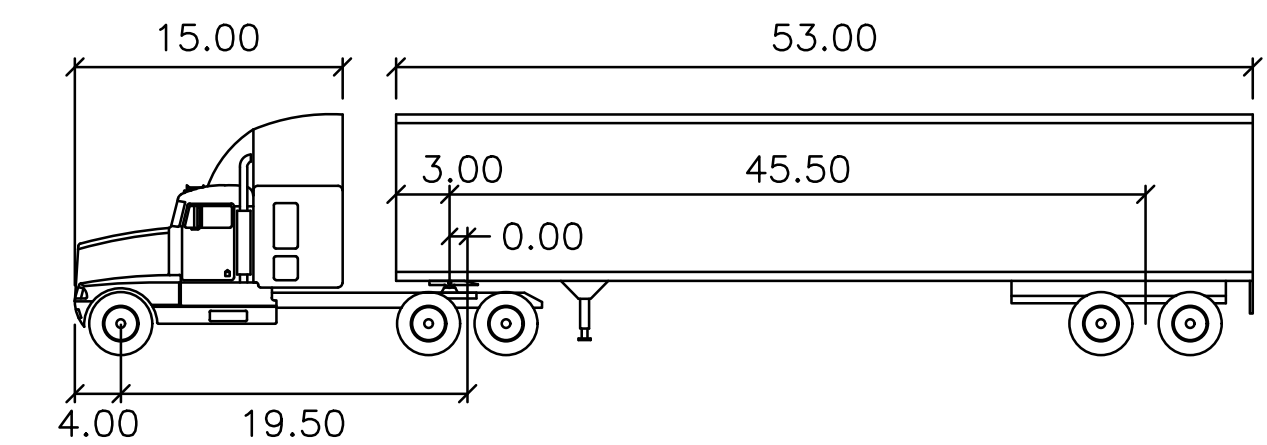
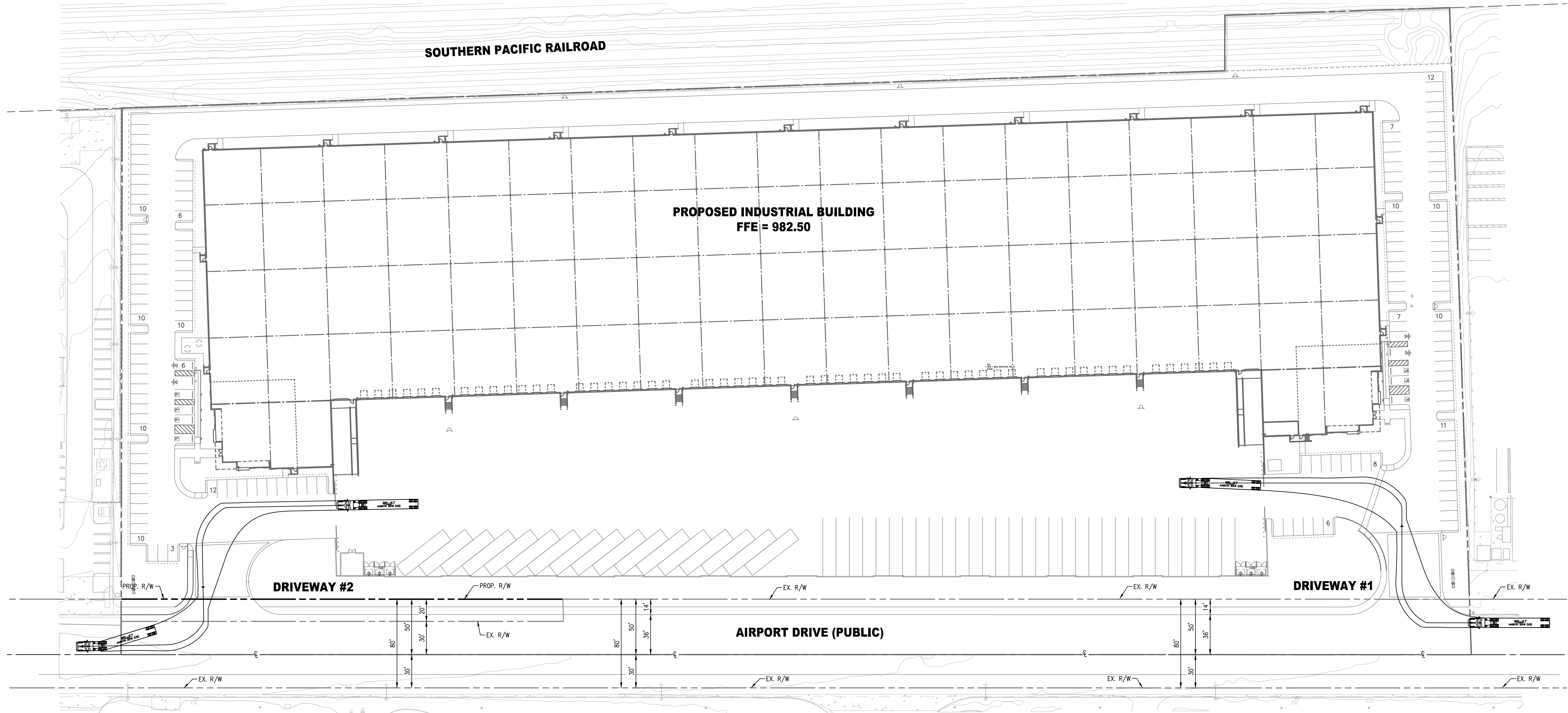
Subsector	Measure	Scale of Application	Applicable Locational Context	Applicability to Project
Trip Reduction Programs	<b>T-5 Implement Commute Trip Reduction Program (Voluntary)</b> This measure will implement a voluntary commute trip reduction (CTR) program with employers.	Project/ Site	Urban, Suburban	Reduction is not quantifiable nor enforceable due to a speculative building with an unknown employer.
	<b>T-6 Implement Commute Trip Reduction Program (Mandatory Implementation and Monitoring)</b> This measure will implement a mandatory CTR program with employers. CTR programs discourage single-occupancy vehicle trips and encourage alternative modes of transportation such as carpooling, taking transit, walking, and biking, thereby reducing VMT and GHG emissions.	Project/ Site	Urban, Suburban	Reduction is not quantifiable nor enforceable due to a speculative building with an unknown employer.
	<b>T-7 Implement Commute Trip Reduction Marketing</b> This measure will implement a marketing strategy to promote the project site employer's CTR program. Information sharing and marketing promote and educate employees about their travel choices to the employment location beyond driving such as carpooling, taking transit, walking, and biking, thereby reducing VMT and GHG emissions.	Project/ Site	Urban, Suburban	Reduction is not quantifiable nor enforceable due to a speculative building with an unknown employer.
	<b>T-8 Provide Ridesharing Program</b> This measure will implement a ridesharing program and establish a permanent transportation management association with funding requirements for employers.	Project/ Site	Urban, Suburban	Reduction is not quantifiable nor enforceable due to a speculative building with an unknown employer.
	<b>T-9 Implement Subsidized or Discounted Transit Program</b> This measure will provide subsidized or discounted, or free transit passes for employees and/or residents.	Project/ Site	Urban, Suburban	Reduction is not quantifiable nor enforceable due to a speculative building with an unknown employer.
	<b>T-10 Provide End-of-Trip Bicycle Facilities</b> This measure will install and maintain end-of-trip facilities for employee use. End-of-trip facilities include bike parking, bike lockers, showers, and personal lockers.	Project/ Site	Urban, Suburban	Applicable and Quantifiable
	<b>T-11 Provide Employer-Sponsored Vanpool</b> This measure will implement an employer-sponsored vanpool service. Vanpooling is a flexible form of public transportation that provides groups of 5 to 15 people with a cost-effective and convenient rideshare option for commuting.	Project/ Site	Urban, Suburban, Rural	Reduction is not quantifiable nor enforceable due to a speculative building with an unknown employer.
	<b>T-12 Price Workplace Parking</b> This measure will price onsite parking at workplaces. Because free employee parking is a common benefit, charging employees to park onsite increases the cost of choosing to drive to work	Project/ Site	Urban, Suburban	Reduction is not quantifiable nor enforceable due to a speculative building with an unknown employer.
	<b>T-13 Implement Employee Parking Cash-Out</b> This measure will require project employers to offer employee parking cash-out. Cash-out is when employers provide employees with a choice of forgoing their current subsidized/free parking for a cash payment equivalent to or greater than the cost of the parking space. This encourages employees to use other modes of travel instead of single occupancy vehicles.	Project/ Site	Urban, Suburban	Reduction is not quantifiable nor enforceable due to a speculative building with an unknown employer.
	<b>T-23 Provide Community-Based Travel Planning</b> This measure will target residences in the plan/community with community-based travel planning (CBTP). CBTP is a residential-based approach to outreach that provides households with customized information, incentives, and support to encourage the use of transportation alternatives in place of single occupancy vehicles.	Plan/ Community	Urban, Suburban	Does not apply at the Project/Site scale.

Source: Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity , California Air Pollution Control Officers Association (CAPCOA), December 2021.

Notes:

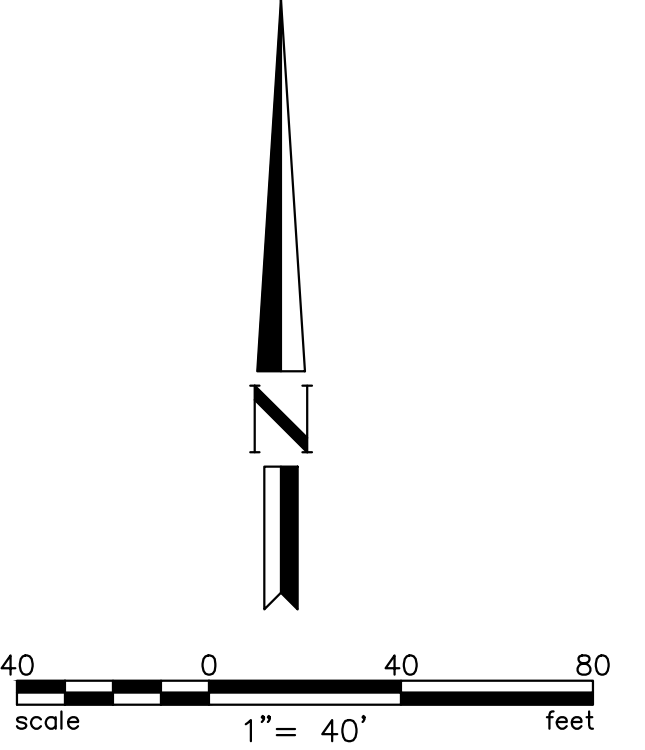
1. Per CAPCOA Handbook, the combined maximum for each subsector or total across subsectors is calculated as:

$1 - ((1-A)*(1-B)*(1-C)*(1-D)...)$  ; where, A, B, C, and D... represent the percent reduction for individual measures or subsectors.



WB-67

feet	
Tractor Width	: 8.00
Trailer Width	: 8.50
Tractor Track	: 8.00
Trailer Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 28.4
Articulating Angle	: 75.0



<b>WestLAND</b> <b>Group, Inc.</b> Land Surveyors • Civil Engineers • GIS 4150 Concourse Street Suite 100, Ontario, CA 91764 Phone: (909) 989-9789 Fax: (909) 989-9660	<b>CITY OF ONTARIO</b> <b>5355 AIRPORT DRIVE</b> <b>TRUCK TURNING EXHIBIT</b>	
	DRAWN BY: WLG DESIGNED BY: WLG CHECKED BY: SM	SCALE: AS SHOWN DATE: 6/29/2023 SHT NO.: 6 OF 6

Drawing Name: P:\Year\2021\021-502-5355 Airport - Prologs - John Carter\06 Engineering\Sheets\CONCEPTUAL\PRELIMINARY SET\06\_2021-502-T.dwg  
 User: John Carter  
 Date: 6/29/2023  
 Scale: 1" = 40'



## **ADDITIONAL SUBSURFACE INVESTIGATION REPORT**

**5355 East Airport Drive  
Ontario, California**

**Submitted by:  
Farallon Consulting, L.L.C.  
27 Mauchly, Suite 213  
Irvine, California 92618**

**Farallon PN: 1071-080 (Task 2)**

**For:  
Prologis, Inc.  
Pier 1, Bay 1  
San Francisco, California 94111**

December 13, 2022

Prepared by:



Peter Sims, P.G.  
Associate Geologist

Reviewed by:



Kathy Lehnus, P.G.  
Senior Geologist





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## 1.0 INTRODUCTION

Farallon Consulting, L.L.C. (Farallon) has prepared this Additional Subsurface Investigation Report (Investigation Report) for Prologis, Inc. (Prologis) to present the results from the subsurface investigation conducted in September 2022 at the property at 5355 East Airport Drive in Ontario, California (herein referred to as the Site) (Figure 1). The scope of work for this subsurface investigation was based on the recognized environmental conditions and subsurface investigation findings identified in the *Phase I/Phase II Environmental Site Assessment Report, 5355 East Airport Drive, Ontario, California* dated March 31, 2022 prepared by Farallon (2022a) for Prologis (Phase I/II Report). The potential for constituents of concern (COCs) to be present in Site subsurface media was identified as a recognized environmental condition due to petroleum underground storage tanks (USTs) formerly present in three areas, former and active septic systems, and a vehicle maintenance garage ("Building B" on Figure 2).

The Phase I/II Report summarized the subsurface investigation conducted by Farallon in March 2022 and a sampling event previously conducted at the Site. Tetrachloroethene (PCE) was detected at concentrations exceeding calculated industrial screening levels using a 0.03 attention factor in soil gas in several areas. Additional investigation was recommended to address the potential for vapor intrusion conditions at the warehouse proposed for construction at the Site. This additional subsurface investigation was conducted to provide that additional investigation. The scope of work for the additional subsurface investigation was presented in Work Change Order 1071-080-WCO 003<sup>1</sup> and the general locations, depths, rationale for the borings, and analytes are shown in Table 1.

This Investigation Report has been organized into the following sections:

- **Section 2, Site Background**, provides a description of the Site, and summarizes pertinent background information regarding its history and previous investigations conducted at the Site.
- **Section 3, Physical Setting**, describes the topography, geology, and hydrogeology of the Site.
- **Section 4, Additional Subsurface Investigation**, provides a description of the scope of work conducted as part of the additional subsurface investigation, and a summary of soil gas analytical results and the handling of investigation-derived waste.
- **Section 5, Conclusions and Recommendations**, presents Farallon's conclusions from the additional subsurface investigation, and recommendations based on the results.
- **Section 6, References**, provides a list of the documents cited in this Additional Subsurface Investigation Report.
- **Section 7, Limitations**, presents Farallon's standard limitations applicable to this Additional Subsurface Investigation Report.

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<sup>1</sup> *Work Change Order 1071-080-WCO 003, Master Services Agreement, Farallon Consulting, L.L.C. and Prologis, Inc.* dated September 12, 2022 between Gavin Polite Fisco of Prologis and Scott Allin of Farallon (2022b).



## 2.0 SITE BACKGROUND

This section provides a description of the Site, and summarizes pertinent background information regarding its history and previous investigations conducted at the Site.

### 2.1 SITE DESCRIPTION

The Site consists of two parcels totaling 14.2 acres: San Bernardino County Assessor Parcel Nos. 0238-052-20 (Eastern Parcel), and 0238-052-29 (Western Parcel). The Eastern Parcel is occupied by Verhoeven, a grain-processing company, and is developed with five buildings, grain storage silos, and a grain mill area. An office and warehouse building, referred to as “Building A,” is located on the southern portion of the Site. The warehouse portion on the northeastern side of Building A contains a service shop used to repair machinery related to the grain mill. A maintenance shop, referred to as “Building B,” is present on the eastern portion of the Site, and is used for light tractor and forklift services. Additional structures on the Eastern Parcel consist of a warehouse referred to as “Building C” on the north-central portion, used for assorted storage, and two grain storage structures on the southeastern and southwestern portions of the parcel, referred to as Buildings D and E, respectively.

The Western Parcel is occupied by The Scoular Company, a corn storage and distribution facility. The Western Parcel contains exterior grain storage areas, and an office trailer that contains a small hazardous substances storage area on secondary containment.

The Site is primarily asphalt-paved, with some gravel-paved areas on the western parcel. Access to the Site is gained from East Airport Drive, south of the Site.

A vehicle wash-down area with a sump is present on the northeastern portion of the Eastern Parcel. Three or four septic systems are associated with the Site: two or three on the Eastern Parcel, and one on the Western Parcel. The location of the septic system on the Western Parcel could not be determined from the records reviewed. A 499-gallon propane aboveground storage tank (AST), two 250-gallon diesel fuel ASTs, and a 220-gallon hydraulic oil AST are present on the Eastern Parcel. Two 12,000-gallon “fuel-storage” USTs formerly were located on the north-central portion of the Site near the grain mill area. A 12,000-gallon diesel fuel UST formerly was located southeast of Building C. The area west of Building B was identified as the location of one or more additional USTs.

### 2.2 SITE HISTORY

The Site was used as agricultural or grazing land from at least the late 1930s to the early 1970s. By 1973, the Eastern Parcel was developed with small grain storage silos and other features associated with milling operations in the grain mill area. By 1975, grain appeared to be stockpiled in Buildings A through C, located on the southwestern portion of the Site. By 1985 grain storage structures Buildings D and E had been developed. By 2002, grain processing operations at the Site



had expanded to the Western Parcel, which included the development of three large grain storage silos. The Site has appeared in its current configuration since 2002.

Site occupants have consisted of Verhoeven from 1973 to the present; Chino Grain and Milling, Inc. in 1985; Coast Grain Company from 1990 to 2003; The Scoular Company between 2004 and the present; and JD Heistell and Company in 2009.

## 2.3 PREVIOUS INVESTIGATIONS

Partner Engineering and Science, Inc. (Partner) prepared a Phase II Subsurface Investigation Report dated August 16, 2016 documenting an investigation conducted at the Site, which included an assessment to identify former on-Site USTs or associated features and reported septic systems, and soil and soil gas sampling to assess for indications of a release from historical Site activities. A geophysical survey was conducted to identify USTs remaining in-place, backfilled tank holds, septic tanks, and/or associated features, and to clear boring locations of utilities. One large anomaly indicative of a backfilled excavation was identified under the western canopy of Building B, which generally corresponds to the location of a former UST area. No large metallic features were identified, so Partner concluded that USTs formerly present in this area had been removed. One large anomaly resembling a septic system was identified north of Building A.

As part of the soil and soil gas sampling, 26 borings were advanced at depths of between 1 and 25 feet below ground surface (bgs) for collection of soil and/or soil gas samples. Soil samples were analyzed for total petroleum hydrocarbon carbon chain C6-C40 (TPH-cc) by U.S. Environmental Protection Agency (EPA) Method 8015C and for volatile organic compounds (VOCs) by EPA Method 8260B. Soil gas samples were analyzed for VOCs by either EPA Methods TO-15 or 8260B. No detectable concentrations of VOCs or TPH-cc were present in the soil samples. VOCs, including PCE, trichloroethene, toluene, ethylbenzene, and xylenes, were detected in soil gas samples at concentrations less than residential and commercial/industrial calculated soil gas screening levels in effect at the time the report was completed. Partner concluded that a discernable vapor intrusion condition did not appear to exist at the Site, and that the detections of VOCs in soil gas did not represent a threat to human health or the environment. Partner recommended no further investigation with respect to the on-Site grain-handling facility at the time of the report.

Although the reported concentrations of VOCs in soil gas were less than soil gas screening levels in effect in 2016 at the time the Partner report was prepared, in April 2020, California Department of Toxic Substances Control (DTSC) Human and Ecological Risk Office (2020) Human Health Risk Assessment Note Number 3 (HHRA Note 3) was updated with the more-conservative attenuation factor of 0.03 for use in screening level calculations. PCE concentrations in soil gas samples collected from sampling locations B5, B6, and SV-14 through SV-16 in 2016 exceeded the calculated soil gas commercial/industrial screening level of 67 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) using the calculated screening level for PCE with the 0.03 attenuation factor. Additionally, the ethylbenzene concentration in one soil gas sample (B4-SG, located west of Building B) exceeded the calculated commercial/industrial screening level of 163  $\mu\text{g}/\text{m}^3$  using the “low level” screening level for ethylbenzene. These samples were collected west of and beneath Building B at a depth of 4 to 5 feet bgs.



As part of its Phase I/II due diligence investigation, Farallon conducted soil and soil gas sampling at the Site in March 2022, focusing on assessing former UST areas and septic systems, and the proposed new building footprint for the potential for vapor intrusion issues. At the time of the assessment, Farallon was informed that an approximately 250,000-square-foot warehouse would be constructed on the north-central portion of the Site (Figure 2). The scope of work for the Phase II ESA portion of the investigation included advancement of 12 borings, installation of two subslab gas probes, and installation of 10 temporary soil gas probe locations with single- or multi-depth nested gas points for collection of soil and soil gas samples.

Petroleum hydrocarbons and VOCs were not detected at a concentration exceeding laboratory reporting limits in the soil samples. Concentrations of metals either were not detected at a concentration exceeding laboratory reporting limits or were detected at concentrations less than screening levels. Results from the laboratory analyses of the March 2022 sampling event are summarized in Tables 2 through 5. Table 5 also include results from the current round of sampling (September 2022) which is the subject of this report.

Soil gas data indicated that PCE was present at concentrations exceeding calculated industrial screening levels using the 0.03 attenuation factor in soil gas samples collected west of and beneath Building B (samples SS-1, SS-2, SVP-7, and SVP-8), proximate to the former location of the 12,000-gallon diesel fuel UST (sample SVP-5), proximate to the former location of the two 12,000-gallon USTs (sample SVP-1), and proximate to the vehicle washdown area with sump (sample SVP-6). These locations were mapped beneath the planned new building footprint. PCE also was detected at concentrations less than the calculated industrial screening levels in in soil gas in other soil gas samples collected at the Site. The extent of PCE in soil gas was not fully characterized.

In the Phase I/II Report, Farallon recommended that a Media Management Plan be prepared for use during Site redevelopment to address any unexpected impacts to soil associated with historical activities at the Site. Farallon also recommended additional investigation to delineate and design mitigation measures for PCE in soil gas that may impact indoor air in the planned new building at the Site.



### **3.0 PHYSICAL SETTING**

The topography, geology, and hydrogeology of the Site are described in this section.

#### **3.1 TOPOGRAPHY**

Farallon reviewed the U.S. Geological Survey topographic map for Guasti, California, dated 2018 provided by Environmental Data Resources, Inc. The map depicts the Site at an elevation of approximately 980 feet above mean sea level. Site topography slopes gently downward to the south. Regional topography generally is sloped downward to the south.

#### **3.2 GEOLOGY AND HYDROGEOLOGY**

The Site is situated in the San Bernadino Valley of the Peninsular Ranges Geomorphic Province in Southern California. The Peninsular Ranges Province is bounded by the San Gabriel and San Bernardino mountains to the north, the Colorado Desert to the east, extends into lower California beyond the Mexican border to the south, and is bound by the Pacific Ocean to the west. The San Bernardino Mountains are approximately 7 miles north of the Site.

According to the Partner (2016) Phase II Report, soil beneath the Site generally consists of very fine-grained silty sand from the surface to a depth of approximately 20 feet bgs and transitions to very fine- to coarse-grained poorly graded sand between depths of 20 and 25 feet bgs. Groundwater was not encountered during Partner's investigation.

Soil encountered during the Phase II ESA, described in the Phase I/II Report, and during the September 2022 additional subsurface investigation was described as silty fine to medium sand to the total explored depth of 10 feet bgs, with an apparent coarse sand and gravel layer at a depth of 10 feet bgs (and as shallow as 5 feet bgs on the eastern portion of the Site at boring SB-2), and intermittent clayey sand to clay lenses approximately 1 foot thick at a depth of between 6 and 7 feet bgs (borings SVP-16 and SVP-19) and 10 to 11 feet bgs (borings SVP-12 and SVP-16). Groundwater was not encountered during drilling. Boring logs are provided in Appendix A.

Site-specific groundwater direction and depth information was not available in the records reviewed. Based on information obtained from the previous reports California State Water Resources Control Board (2022) GeoTracker database and topographic interpretation, groundwater beneath the Site is anticipated to be encountered at a depth of approximately 250 feet bgs, and is estimated to flow to the south.





## **4.0 ADDITIONAL SUBSURFACE INVESTIGATION**

This section presents the scope of work for the additional subsurface investigation conducted at the Site in September 2022, and summarizes the results from soil gas sampling and analysis. The handling of waste generated during the additional subsurface investigation also is discussed.

### **4.1 SCOPE OF WORK**

Before field work was initiated, a Site-specific Health and Safety Plan (HASP) was prepared, and underground utilities were cleared. Field work consisted of advancing borings and collecting soil gas samples at the Site to provide a better understanding of soil gas impacts detected during previous subsurface investigations. The following sections detail this scope of work.

#### **4.1.1 Health and Safety Plan Preparation**

A Site-specific HASP was required under Section 3202 of Title 8 of the California Code of Regulations (8 CCR 3202) for all field activities due to the potential for exposure to hazardous substances. Prior to commencement of field activities, Farallon prepared a HASP compliant with the requirements of the Occupational Safety and Health Act of 1970 and 8 CCR 3203. Personal protection equipment precautions related to COVID-19 were implemented for Farallon personnel during field activities in accordance with Farallon health and safety policy.

#### **4.1.2 Underground Utility Clearance**

Prior to commencement of drilling activities, Farallon marked the proposed boring locations at the Site and contacted Dig Alert for public utility notice. Farallon also engaged a private utility location service to pre-screen the proposed boring locations for utilities that may be encountered during advancement using hand tools.

#### **4.1.3 Boring Advancement**

Nine borings, designated SVP-11 through SVP-19, were advanced at the Site on September 16, 2022 to investigate the potential presence of VOCs in soil gas beneath the planned new building footprint. The boring locations are shown on Figure 2 and were generally evenly distributed across the planned new building footprint, with selected borings placed in previously identified impacted areas. The borings were advanced using a hand-auger to a depth of 5 feet bgs, and a direct-push drill rig for the remaining depth. The general locations, depths, rationale for the borings, and analyte are shown in Table 1.

Continuous soil cores were visually inspected and screened by a Farallon geologist using a photoionization detector, and were described and logged using the United Soil Classification System (Modified). Physical evidence of soil impacts, including staining and odors, was not observed; photoionization detector readings ranged from 0.0 to 1.4 parts per million. Boring logs with soil descriptions are provided in Appendix A.



Soil cuttings generated during drilling activities were containerized in a 55-gallon drum pending transport and disposal off the Site.

#### **4.1.4 Soil Gas Probe Installation and Sampling**

Following completion of boring advancement, Farallon converted the borings to temporary dual-nested soil gas probes. Borings SVP-11 through SVP-19 were constructed with soil gas probes at depths of 4 and 10 feet bgs.

Soil gas probe installation was performed in accordance with the *Advisory: Active Soil Gas Investigations* dated July 2015 prepared by the California Environmental Protection Agency et al. (2015) (Soil Gas Advisory). The probes consisted of an Airstone microporous gas implant or equivalent connected to 0.25-inch-outside-diameter Nylaflow tubing, finished at the surface with temporary plugs. The annulus around the gas implant was backfilled with approximately 1 foot of screen-washed No. 3 sand, followed by 0.5 foot of dry granular bentonite, and hydrated granular bentonite to create a seal from the top of the dry granular bentonite to near surface. Soil gas probe construction is illustrated in the boring logs provided in Appendix A; their locations are shown on Figure 2.

The temporary dual-nested soil gas probes were allowed to equilibrate for 4 days prior to sample collection on September 20, 2022. Soil gas sampling, including observance of equilibration times, performance of shut-in tests, and purging activities, was conducted in accordance with the Soil Gas Advisory. A total of 19 soil gas samples (18 primary and 1 duplicate) were collected into 1-liter Summa canisters at a rate of 200 milliliters per minute or less. Isopropanol was used as a tracer gas, introduced to ambient air surrounding the sampling train by soaking a cotton swab with liquid isopropanol and placing it at the location where the gas probe tubing exited the ground.

Upon completion of sample collection, soil gas samples were transported under chain-of-custody protocols to a California-certified laboratory, and were analyzed for VOCs by EPA Method 8260B with TO-15 detection limits, where attainable. The soil vapor probes were then abandoned by filling the probe with bentonite grout as practicable and removing.

## **4.2 SUMMARY OF ANALYTICAL RESULTS FOR SOIL GAS**

The soil gas analytical results were compared to DTSC Screening Levels (SLs) for indoor air, EPA Regional Screening Levels (RSLs) for indoor air, and the San Francisco Water Quality Control Board (SFWQCB) Environmental Screening Levels (ESLs) for TPH-g, which were adjusted using suggested attenuation factors provided in the Vapor Intrusion Guidance prepared by DTSC and the California Environmental Protection Agency (2011). The attenuation factor used for this comparison was 0.001 for soil gas in industrial use settings. Farallon also used the more-conservative attenuation factor of 0.03 for “near-source” exterior soil gas published in HHRA Note 3.



A summary of soil gas analytical results from the September 2022 and historical Farallon investigations is provided in Table 5. Soil gas analytical results from the additional subsurface investigation are summarized below:

- The tracer gas isopropanol was not detected at a concentration exceeding laboratory reporting limits in the soil gas samples collected from the soil gas probes.
- PCE was not detected at a concentration exceeding the laboratory reporting limit of 25  $\mu\text{g}/\text{m}^3$  in the soil gas samples collected from the soil gas probes; the laboratory reporting limit was less than calculated screening levels using the 0.03 attenuation factor published in HHRA Note 3, the most-conservative attenuation factor for “near-source” exterior soil gas samples.
- Ethylbenzene and total xylenes were detected at concentrations exceeding laboratory reporting limits in the two soil gas samples collected from soil gas probe location SVP-16, which was installed in the vicinity of a gravel roadway under the new planned building. The detected concentrations are less than calculated commercial/industrial screening levels using the 0.03 attenuation factor published in HHRA Note 3, the most-conservative attenuation factor for “near-source” exterior soil gas samples.

Because some soil gas samples collected in September 2022 were proximate to areas that showed impacts in March 2022 but no impacts were detected in September 2022, Farallon worked with the original analytical laboratory to conduct a data quality review of both analytical data sets. No anomalies in the data sets were found to render the data from either event unusable. Laboratory analytical reports are provided in Appendix B. Because no COCs were detected in the duplicate sampling pair, laboratory reproducibility could not be evaluated.

### **4.3 INVESTIGATION-DERIVED WASTE**

Soil cuttings were containerized in a 55-gallon drum at the Site. The contents were characterized as nonhazardous, and were transported off the Site for disposal. Copies of the waste disposal documentation are provided in Appendix C.



## 5.0 CONCLUSIONS AND RECOMMENDATIONS

Farallon conducted an additional subsurface investigation in September 2022 to further investigate impacts of VOCs previously identified in soil gas beneath the planned new building footprint at the Site. Previous soil gas data indicated that PCE was present at concentrations exceeding calculated industrial screening levels using the 0.03 attenuation factor in soil gas samples collected beneath and proximate to the planned new building footprint, specifically west of and beneath Building B, proximate to the former location of the 12,000-gallon diesel fuel UST, proximate to the former location of two 12,000 gallon USTs, and proximate to the vehicle washdown area with sump. PCE also was detected at concentrations less than the calculated industrial screening levels in soil gas in other soil gas samples collected at the Site. It was determined that the extent of PCE impacts to soil gas at the Site had not been fully characterized.

For the September 2022 additional subsurface investigation, nine borings were advanced in the planned new building footprint. Soil gas probes were generally evenly distributed across the planned new building footprint, with selected probes placed in previously identified impacted areas. The borings were converted to temporary dual-nested soil gas probes at depths of 4 and 10 feet bgs. No detectable concentrations of PCE exceeding the laboratory reporting limit of 25  $\mu\text{g}/\text{m}^3$  were identified during laboratory analysis of soil gas samples collected during this additional subsurface investigation. Concentrations of other, gasoline-related, VOCs, which may be attributable to road current use, did not exceed the calculated screening levels using the most-conservative 0.03 attenuation factor in soil gas samples collected during this additional subsurface investigation.

This additional subsurface investigation did not indicate that the previously identified PCE impacts to soil gas are present in the areas that were resampled, and did not identify additional areas under the proposed building slab. Farallon recommends that the the areas of highest impact previously encountered under the proposed building slab be resampled to aide in the determination of whether mitigation measures are recommended for the proposed building.



## 6.0 REFERENCES

- California Department of Toxic Substances Control, Human and Ecological Risk Office. 2020. *Human Health Risk Assessment (HHRA) Note Number 3, DTSC-modified Screening Levels (DTSC-SLs)*. June.
- California Department of Toxic Substances Control, and California Environmental Protection Agency. 2011. *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance)*. Final. October.
- California Environmental Protection Agency, Department of Toxic Substances Control, Los Angeles Regional Water Quality Control Board, and San Francisco Regional Water Quality Control Board. 2015. *Advisory: Active Soil Gas Investigations*. July.
- California State Water Resources Control Board. 2022. GeoTracker Database Search. <[GeoTracker \(ca.gov\)](https://geotracker.ca.gov)>. (November 2022.)
- Farallon Consulting, L.L.C. (Farallon). 2022a. *Phase I/Phase II Environmental Site Assessment Report, 5355 East Airport Drive, Ontario, California*. Prepared for Prologis, Inc. March 31.
- . 2022b. *Work Change Order 1071-080-WCO 003, Master Services Agreement, Farallon Consulting, L.L.C. and Prologis, Inc.* Between Gavin Polite Fisco, Prologis, Inc. and Scott Allin, Farallon Consulting, L.L.C. September 12.
- Partner Engineering and Science, Inc. 2016. *Phase II Subsurface Investigation Report, 5355 East Airport Drive, Ontario, California 91761*. Prepared for Prologis. August 16.



## 7.0 LIMITATIONS

### 7.1 GENERAL LIMITATIONS

The conclusions contained in this report/assessment are based on professional opinions with regard to the subject matter. These opinions have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location. The conclusions contained herein are subject to the following inherent limitations:

- **Accuracy of Information.** Farallon obtained, reviewed, and evaluated certain information used in this report/assessment from sources that were believed to be reliable. Farallon's conclusions, opinions, and recommendations are based in part on such information. Farallon's services did not include verification of its accuracy or authenticity. Should the information upon which Farallon relied prove to be inaccurate or unreliable, Farallon reserves the right to amend or revise its conclusions, opinions, and/or recommendations.
- **Reconnaissance and/or Characterization.** Farallon performed a reconnaissance and/or characterization of the Site that is the subject of this report/assessment to document current conditions. Farallon focused on areas deemed more likely to exhibit hazardous materials conditions. Contamination may exist in other areas of the Site that were not investigated or were inaccessible. Site activities beyond Farallon's control could change at any time after the completion of this report/assessment.

For the foregoing reasons, Farallon cannot and does not warrant or guarantee that the Site is free of hazardous or potentially hazardous substances or conditions, or that latent or undiscovered conditions will not become evident in the future. Farallon's observations, findings, and opinions can be considered valid only as of the date of the report.

This report/assessment has been prepared in accordance with the contract for services between Farallon and Prologis, Inc. and currently accepted industry standards. No other warranties, representations, or certifications are made.

### 7.2 LIMITATION ON RELIANCE BY THIRD PARTIES

**Reliance by third parties is prohibited.** This report/assessment has been prepared for the exclusive use of Prologis, Inc. to address the unique needs of Prologis, Inc. at the Site at a specific point in time.

This is not a general grant of reliance. No one other than Prologis, Inc. may rely on this report unless Farallon agrees in advance to such reliance in writing. Any unauthorized use, interpretation, or reliance on this report/assessment is at the sole risk of that party, and Farallon will have no liability for such unauthorized use, interpretation, or reliance.

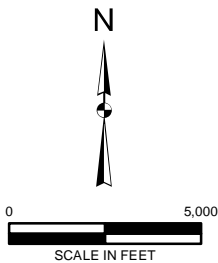
## **FIGURES**

**ADDITIONAL SUBSURFACE INVESTIGATION REPORT**  
5355 East Airport Drive  
Ontario, California

Farallon PN: 1071-080 (Task 2)



REFERENCE: 7.5 MINUTE USGS QUADRANGLE GUASTI, CALIFORNIA, DATED 2013



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Washington  
Issaquah | Bellingham | Seattle

Oregon  
Portland | Baker City

California  
Oakland | Irvine

### FIGURE 1

SITE VICINITY MAP  
5355 EAST AIRPORT DRIVE  
ONTARIO, CALIFORNIA

FARALLON PN: 1071-080-002

Drawn By: Imurock

Checked By: PS

Date: 10/5/2022

Disc Reference:

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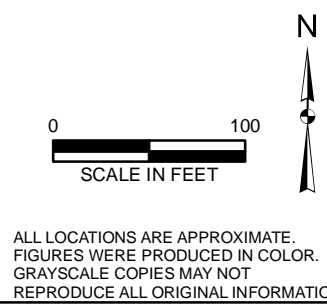


**LEGEND**

- + SOIL GAS PROBE (FARALLON, SEPTEMBER 2022)
- + SOIL GAS PROBE (FARALLON, MARCH 2022)
- SUBSLAB SOIL GAS PROBE (FARALLON, MARCH 2022)
- BORING (FARALLON, MARCH 2022)
- SOIL GAS PROBE (PARTNER, 2016)
- ◆ HAZARDOUS MATERIALS STORAGE AREA
- T TRANSFORMER
- FORMER SITE FEATURE
- OBSERVED TANK LOCATION
- GROUND-PENETRATING RADAR SCAN AREA
- PROPOSED BUILDING FOOTPRINT
- SITE BOUNDARY

  SAN BERNARDINO COUNTY PARCEL BOUNDARY

AST = ABOVEGROUND STORAGE TANK  
 GPR = GROUND-PENETRATING RADAR  
 UST = UNDERGROUND STORAGE TANK  
 GPR SURVEY AREA - 2022 (NO UST FOUND)



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**FIGURE 2**

**SITE PLAN AND SAMPLING LOCATIONS**  
 5355 EAST AIRPORT DRIVE  
 ONTARIO, CALIFORNIA

Washington  
Issaquah | Bellingham | Seattle

Oregon  
Portland | Baker City

California  
Oakland | Irvine

FARALLON PN: 1071-080-002

Disc Reference:  
 Q:\Projects\1071 Prologis\080 2021 SoCal Due Diligence I\002 Airport Dr\Mapfiles\SSI\_2022-10\Figure-02\_SitePlan\_SampleLocs.mxd

ALL LOCATIONS ARE APPROXIMATE. FIGURES WERE PRODUCED IN COLOR. GRAYSCALE COPIES MAY NOT REPRODUCE ALL ORIGINAL INFORMATION.

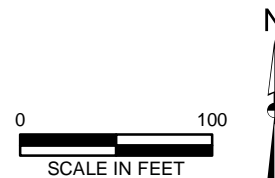


NOTES:  
 SAMPLE DATE, DEPTH, AND ANALYTICAL RESULTS AS:  
 SAMPLE DATE | SAMPLE DEPTH IN FEET BELOW GROUND SURFACE | PCE  
 SOIL GAS ANALYTICAL RESULTS IN MICROGRAMS PER CUBIC METER.  
**BOLD** = DENOTES CONCENTRATIONS THAT EXCEEDED THE COMMERCIAL  
 SUBSLAB/SOIL GAS VAPOR INTRUSION ENVIRONMENTAL  
 SCREENING LEVEL.  
 <= DENOTES ANALYTE NOT DETECTED AT OR EXCEEDING THE  
 LISTED REPORTING LIMIT.  
 PCE = TETRACHLOROETHENE

**LEGEND**

- + SOIL GAS PROBE (FARALLON, SEPTEMBER 2022)
- + SOIL GAS PROBE (FARALLON, MARCH 2022)
- SUBSLAB SOIL GAS PROBE (FARALLON, MARCH 2022)
- SOIL GAS PROBE (PARTNER, 2016)
- ◆ HAZARDOUS MATERIALS STORAGE AREA
- T TRANSFORMER
- FORMER SITE FEATURE
- OBSERVED TANK LOCATION
- GROUND-PENETRATING RADAR SCAN AREA
- PROPOSED BUILDING FOOTPRINT
- SITE BOUNDARY
- SAN BERNARDINO COUNTY PARCEL BOUNDARY

AST = ABOVEGROUND STORAGE TANK  
 GPR = GROUND-PENETRATING RADAR  
 UST = UNDERGROUND STORAGE TANK  
 GPR SURVEY AREA - 2022 (NO UST FOUND)



Washington  
Issaquah | Bellingham | Seattle

Oregon  
Portland | Baker City

California  
Oakland | Irvine

**FIGURE 3**  
 PCE IN SOIL VAPOR  
 5355 EAST AIRPORT DRIVE  
 ONTARIO, CALIFORNIA

**TABLES**

**ADDITIONAL SUBSURFACE INVESTIGATION REPORT**  
5355 East Airport Drive  
Ontario, California

Farallon PN: 1071-080 (Task 2)

**Table 1**  
**Sampling Rationale**  
**5355 East Airport Road**  
**Ontario, California**  
**Farallon PN: 1071-080-002**

Sample ID	Location	Rationale	Matrix to Be Sampled	Boring Depth (feet bgs)	Proposed Sample Depth and Analysis (feet bgs)
SVP-11	Planned New Building Footprint	Assess the potential for soil vapor under the future building	Soil Vapor	10	4 feet PCE 10 feet PCE
SVP-12	Planned New Building Footprint	Assess the potential for soil vapor under the future building	Soil Vapor	10	4 feet PCE 10 feet PCE
SVP-13	Planned New Building Footprint	Assess the potential for soil vapor under the future building	Soil Vapor	10	4 feet PCE 10 feet PCE
SVP-14	Planned New Building Footprint	Assess the potential for soil vapor under the future building	Soil Vapor	10	4 feet PCE 10 feet PCE
SVP-15	Planned New Building Footprint	Assess the potential for soil vapor under the future building	Soil Vapor	10	4 feet PCE 10 feet PCE
SVP-16	Planned New Building Footprint	Assess the potential for soil vapor under the future building	Soil Vapor	10	4 feet PCE 10 feet PCE
SVP-17	Planned New Building Footprint	Assess the potential for soil vapor under the future building	Soil Vapor	10	4 feet PCE 10 feet PCE
SVP-18	Planned New Building Footprint	Assess the potential for soil vapor under the future building	Soil Vapor	10	4 feet PCE 10 feet PCE
SVP-19	Planned New Building Footprint	Assess the potential for soil vapor under the future building	Soil Vapor	10	4 feet PCE 10 feet PCE

**NOTES:**

bgs = below ground surface

PCE = tetrachloroethene

**Table 2**  
**Cumulative Summary of Volatile Organic Compounds in Soil**  
**5355 East Airport Road**  
**Ontario, California**  
**Farallon PN: 1071-080-002**

Sample Location	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	Analytical Results (milligrams per kilogram) <sup>2</sup>					
					PCE	Benzene	Toluene	Ethylbenzene	Total Xylenes	Other VOCs
B1	Partner	B1-1	1.0	7/21/2016	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.015	ND
B2	Partner	B2-1	1.0	7/21/2016	< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.0131	ND
B3	Partner	B3-15	15.0	7/21/2016	< 0.0043	< 0.0043	< 0.0043	< 0.0043	< 0.0129	ND
B4	Partner	B4-10	10.0	7/21/2016	< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.0132	ND
B5	Partner	B5-15	15.0	7/21/2016	< 0.0041	< 0.0041	< 0.0041	< 0.0041	< 0.0123	ND
B6	Partner	B6-10	10.0	7/21/2016	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.015	ND
B7	Partner	B7-10	10.0	7/21/2016	< 0.0043	< 0.0043	< 0.0043	< 0.0043	< 0.013	ND
B8	Partner	B8-10	10.0	7/21/2016	< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.0133	ND
B9	Partner	B9-1	1.0	7/21/2016	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.015	ND
B10	Partner	B10-1	1.0	7/21/2016	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.015	ND
B11	Partner	B11-1	1.0	7/21/2016	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.015	ND
B12	Partner	B12-1	1.0	7/21/2016	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.015	ND
SB-1	Farallon	SB-1-10'	10.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SB-2	Farallon	SB-1-10'	10.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-1	Farallon	SVP-1-10'	10.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-2	Farallon	SVP-2-4'	4.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-3	Farallon	SVP-3-4'	4.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-4	Farallon	SVP-4-4'	4.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-5	Farallon	SVP-5-10'	10.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-6	Farallon	SVP-6-4'	4.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
	Farallon	SVP-6-8'	8.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-7	Farallon	SVP-7-4'	4.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-8	Farallon	SVP-8-4'	4.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-9	Farallon	SVP-9-4'	4.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-10	Farallon	SVP-10-8'	8.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
<b>Commercial/Industrial Soil RSL<sup>3</sup></b>					<b>2.7</b>	<b>1.4</b>	<b>5,300</b>	<b>25</b>	<b>2,500</b>	<b>Various</b>

**NOTES:**

< denotes analyte not detected at or exceeding the reporting limit listed.

<sup>1</sup>Depth in feet below ground surface.

<sup>2</sup>Analyzed by U.S. Environmental Protection Agency (EPA) Method 8260B. Only select VOCs shown in table; see lab reports for full list of analytes.

<sup>3</sup>June 2020 (Revised May 2022) Department of Toxic Substances Control (DTSC) Regional Screening Levels (RSLs). If DTSC RSLs do not exist, November 2022 EPA RSLs were used and noted in blue text.

Farallon = Farallon Consulting, LLC

ND = not detected at or above the laboratory reporting limit

Partner = Partner Engineering and Science, Inc.

PCE = Tetrachloroethene

RSL = Regional Screening Level

VOCs = volatile organic compounds

**Table 3**  
**Cumulative Summary of Total Petroleum Hydrocarbons in Soil**  
**5355 East Airport Road**  
**Ontario, California**  
**Farallon PN: 1071-080-002**

Sample Location	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	Analytical Results (milligrams per kilogram) <sup>2</sup>		
					TPH-g (C4 - C12)	TPH-d (C13 - C22)	TPH-o (C23 - C40)
B1	Partner	B1-1	1.0	7/21/2016	< 10	< 10	< 10
B2	Partner	B2-1	1.0	7/21/2016	< 10	< 10	< 10
B3	Partner	B3-15	15.0	7/21/2016	< 10	< 10	< 10
B4	Partner	B4-10	10.0	7/21/2016	< 10	< 10	< 10
B5	Partner	B5-15	15.0	7/21/2016	< 10	< 10	< 10
B6	Partner	B6-10	10.0	7/21/2016	< 10	< 10	< 10
B7	Partner	B7-10	10.0	7/21/2016	< 10	< 10	< 10
B8	Partner	B8-10	10.0	7/21/2016	< 10	< 10	< 10
B9	Partner	B9-1	1.0	7/21/2016	< 10	< 10	< 10
B10	Partner	B10-1	1.0	7/21/2016	< 10	< 10	< 10
B11	Partner	B11-1	1.0	7/21/2016	< 10	< 10	< 10
B12	Partner	B12-1	1.0	7/21/2016	< 10	< 10	< 10
SB-1	Farallon	SB-1-10'	10.0	3/4/2022	< 0.20	< 10.0	< 10.0
SB-2	Farallon	SB-1-10'	10.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-1	Farallon	SVP-1-10'	10.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-2	Farallon	SVP-2-4'	4.0	3/4/2022	< 0.20	---	---
SVP-3	Farallon	SVP-3-4'	4.0	3/4/2022	< 0.20	---	---
SVP-4	Farallon	SVP-4-4'	4.0	3/4/2022	< 0.20	---	---
SVP-5	Farallon	SVP-5-10'	10.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-6	Farallon	SVP-6-4'	4.0	3/4/2022	< 0.20	< 10.0	< 10.0
	Farallon	SVP-6-8'	8.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-7	Farallon	SVP-7-4'	4.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-8	Farallon	SVP-8-4'	4.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-9	Farallon	SVP-9-4'	4.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-10	Farallon	SVP-10-8'	8.0	3/4/2022	< 0.20	< 10.0	< 10.0
<b>MSSL (&lt; 20 feet Above Groundwater)<sup>3</sup></b>					<b>100</b>	<b>100</b>	<b>1,000</b>
<b>MSSL (20-150 feet Above Groundwater)<sup>3</sup></b>					<b>500</b>	<b>1,000</b>	<b>10,000</b>
<b>MSSL (&gt; 150 feet Above Groundwater)<sup>3</sup></b>					<b>1,000</b>	<b>10,000</b>	<b>50,000</b>

**NOTES:**

< denotes analyte not detected at or exceeding the reporting limit listed.

--- denotes sample not analyzed.

<sup>1</sup>Depth in feet below ground surface.

<sup>2</sup>Analyzed by U.S. Environmental Protection Agency (EPA) Method 8015M (2022 samples) or 8015C (2016 samples).

<sup>3</sup>Los Angeles Regional Water Quality Control Board April 27, 2004 MSSLs for groundwater at depths of less than 20 feet, 20 to 150 feet, and greater than 150 feet below ground surface.

C = carbon range (number of carbons)

Farallon = Farallon Consulting, LLC

MSSL = maximum soil screening level

Partner = Partner Engineering and Science, Inc.

TPH-d = total petroleum hydrocarbons as diesel

TPH-g = total petroleum hydrocarbons as gasoline

TPH-o = total petroleum hydrocarbons as oil

**Table 4**  
**Cumulative Summary of Metals in Soil**  
**5355 East Airport Road**  
**Ontario, California**  
**Farallon PN: 1071-080-002**

Sample Location	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	Analytical Results (milligrams per kilogram) <sup>2</sup>									
					Barium	Cadmium	Chromium	Cobalt	Copper	Lead	Nickel	Vanadium	Zinc	Other Metals
SVP-6	Farallon	SVP-6-4'	4.0	3/4/2022	61.2	0.9	8.2	5.2	5.9	1.1	5.2	24.6	26.5	ND
	Farallon	SVP-6-8'	8.0	3/4/2022	59.6	0.9	8.5	5.2	6.0	1.2	5.2	23.1	27.0	ND
<b>Residential Soil RSL<sup>3</sup></b>					<b>15,000</b>	<b>7.1</b>	<b>NE</b>	<b>23</b>	<b>3,100</b>	<b>80</b>	<b>820</b>	<b>390</b>	<b>23,000</b>	<b>Various</b>
<b>Industrial Soil RSL<sup>3</sup></b>					<b>220,000</b>	<b>79</b>	<b>NE</b>	<b>350</b>	<b>47,000</b>	<b>500</b>	<b>11,000</b>	<b>5,800</b>	<b>350,000</b>	<b>Various</b>

**NOTES:**

< denotes analyte not detected at or exceeding the reporting limit listed.

<sup>1</sup>Depth in feet below ground surface.

<sup>2</sup>California Administrative Manual (CAM) Priority Pollutant List (PPL) 17 metals analyzed by U.S. Environmental Protection Agency (EPA) Method 6010B by 3050B; mercury analyzed by EPA Method 7471A. Only detected analytes shown; see lab report for full list of analytes.

<sup>3</sup>June 2020 (Revised May 2022) Department of Toxic Substances Control (DTSC) Regional Screening Levels (RSLs). If DTSC RSLs do not exist, November 2022 EPA RSLs were used and noted in blue text.

Farallon = Farallon Consulting, LLC

ND = not detected at or above the laboratory reporting limit

RSL = Regional Screening Level

**Table 5**  
**Cumulative Summary of Volatile Organic Compounds in Soil Gas**  
**5355 East Airport Road**  
**Ontario, California**  
**Farallon PN: 1071-080-004**

Sample Location	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	Analytical Results (micrograms per cubic meter) <sup>2</sup>													
					PCE	TCE	Cyclohexane	Trichloro-fluoro-methane (Freon 11)	Dichloro difluoro-methane (Freon 12)	Ethylbenzene	Toluene	Total Xylenes	1,2,4-Trimethyl-benzene	Carbon Disulfide	TPH-g	Methane	Other VOCs	Tracer
<b>Subslab Soil Gas Samples</b>																		
SS-1	Farallon	SS-1	0.5	3/11/2022	220	< 20	---	< 40	< 40	< 20	< 20	< 60	< 20	---	< 5,000	---	< 5,000	ND
SS-2	Farallon	SS-2	0.5	3/11/2022	194	< 20	---	< 40	< 40	< 20	< 20	< 60	< 20	---	< 5,000	---	< 5,000	ND
<b>Soil Gas Samples</b>																		
B3	Partner	B3-SG	5.0	7/21/2016	< 350 C	< 270 C	< 170 C	< 290 C	< 250 C	< 220 C	< 190 C	460 C	< 250 C	< 160 C	---	---	ND C	ND
B4	Partner	B4-SG	5.0	7/21/2016	< 350 C	< 270 C	< 170 C	< 290 C	< 250 C	280 C	< 190 C	1,500 C	< 250 C	< 160 C	---	---	ND C	ND
B5	Partner	B5-SG	5.0	7/21/2016	100	< 5.5	< 3.5	< 5.7	< 5.0	< 4.4	< 3.8	12	< 5.0	< 3.2	---	---	ND	ND
B6	Partner	B6-SG	5.0	7/21/2016	68	26	< 3.5	< 5.7	< 5.0	< 4.4	4.0	23.6	< 5.0	< 3.2	---	---	ND	ND
B7	Partner	B7-SG	5.0	7/21/2016	< 6.9	< 5.5	< 3.5	< 5.7	< 5.0	11	4.9	92	< 5.0	< 3.2	---	---	ND	ND
B8	Partner	B8-SG	5.0	7/21/2016	44	13	< 3.5	< 5.7	< 5.0	21	13	178	< 5.0	< 3.2	---	---	ND	ND
SV-13	Partner	SV-13-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-14	Partner	SV-14-4'	4.0	7/29/2016	230	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-15	Partner	SV-15-5'	5.0	7/29/2016	120	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-16	Partner	SV-16-4'	4.0	7/29/2016	180	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-17	Partner	SV-17-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-18	Partner	SV-18-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-19	Partner	SV-19-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-20	Partner	SV-20-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-21	Partner	SV-21-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-22	Partner	SV-22-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-23	Partner	SV-23-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-24	Partner	SV-24-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-25	Partner	SV-25-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-26	Partner	SV-26-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
	Partner	SV-26-5' Dup	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SVP-1	Farallon	SVP-1-4'	4.0	3/11/2022	31	< 20	---	< 40	< 40	< 20	21	< 60	< 20	---	< 5,000	---	ND	ND
	Farallon	SVP-1-10'	10.0	3/11/2022	157	< 20	---	< 40	< 40	< 20	21	< 60	< 20	---	< 5,000	---	ND	ND
SVP-2	Farallon	SVP-2-4'	4.0	3/11/2022	27	< 20	---	< 40	< 40	< 20	34	< 60	< 20	---	< 5,000	---	ND	ND
SVP-3	Farallon	SVP-3-4'	4.0	3/11/2022	< 20	< 20	---	< 40	< 40	< 20	78	< 60	< 20	---	< 5,000	---	ND	ND
	Farallon	SVP-3-4'REP	4.0	3/11/2022	< 20	< 20	---	< 40	< 40	< 20	45	< 60	< 20	---	< 5,000	---	ND	ND
SVP-4	Farallon	SVP-4-4'	4.0	3/11/2022	62	< 20	---	< 40	< 40	< 20	80	< 60	< 20	---	< 5,000	---	ND	ND
	Farallon	SVP-4-4'REP	4.0	3/11/2022	57	< 20	---	< 40	< 40	< 20	46	< 60	< 20	---	< 5,000	---	ND	ND
<b>Calculated Industrial SGSL with 0.03 Attenuation Factor<sup>3</sup></b>					<b>67</b>	<b>100</b>	<b>870,000</b>	<b>180,000</b>	<b>15,000</b>	<b>160</b>	<b>43,000</b>	<b>15,000</b>	<b>8,700</b>	<b>100,000</b>	<b>83,000</b>	<b>5%<sup>4</sup></b>	<b>Varies</b>	<b>Varies</b>



**Table 5**  
**Cumulative Summary of Volatile Organic Compounds in Soil Gas**  
**5355 East Airport Road**  
**Ontario, California**  
**Farallon PN: 1071-080-004**

Sample Location	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	Analytical Results (micrograms per cubic meter) <sup>2</sup>													Other VOCs	Tracer
					PCE	TCE	Cyclohexane	Trichloro-fluoro-methane (Freon 11)	Dichloro difluoro-methane (Freon 12)	Ethylbenzene	Toluene	Total Xylenes	1,2,4-Trimethyl-benzene	Carbon Disulfide	TPH-g	Methane			
SVP-5	Farallon	SVP-5-4'	4.0	3/11/2022	<b>70</b>	< 20	---	< 40	< 40	< 20	<b>83</b>	< 60	< 20	---	< 5,000	---	ND	ND	
	Farallon	SVP-5-10'	10.0	3/11/2022	<b>234</b>	< 20	---	< 40	< 40	< 20	< 20	< 60	< 20	---	< 5,000	---	ND	ND	
SVP-6	Farallon	SVP-6-4'	4.0	3/11/2022	<b>97</b>	< 20	---	< 40	< 40	< 20	<b>106</b>	< 60	< 20	---	< 5,000	---	ND	ND	
	Farallon	SVP-6-8'	8.0	3/11/2022	<b>34</b>	< 20	---	< 40	< 40	< 20	<b>65</b>	< 60	< 20	---	< 5,000	---	ND	ND	
SVP-7	Farallon	SVP-7-4'	4.0	3/11/2022	<b>247</b>	< 20	---	< 40	< 40	< 20	<b>91</b>	< 60	< 20	---	< 5,000	---	ND	ND	
SVP-8	Farallon	SVP-8-4'	4.0	3/11/2022	<b>232</b>	< 20	---	< 40	< 40	< 20	<b>89</b>	< 60	< 20	---	< 5,000	---	ND	ND	
SVP-9	Farallon	SVP-9-4'	4.0	3/11/2022	<b>24</b>	< 20	---	< 40	< 40	< 20	<b>87</b>	< 60	< 20	---	< 5,000	---	ND	ND	
SVP-10	Farallon	SVP-10-4'	4.0	3/11/2022	<b>31</b>	< 20	---	< 40	< 40	< 20	<b>60</b>	< 60	< 20	---	< 5,000	---	ND	ND	
	Farallon	SVP-10-8'	8.0	3/11/2022	<b>63</b>	< 20	---	< 40	<b>60</b>	< 20	<b>47</b>	< 60	< 20	---	< 5,000	---	ND	ND	
SVP-11	Farallon	SVP-11-4	4.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 50	< 25	< 250	---	---	ND	ND	
	Farallon	SVP-11-10	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 50	< 25	< 250	---	---	ND	ND	
SVP-12	Farallon	SVP-12-4	4.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 50	< 25	< 250	---	---	ND	ND	
	Farallon	SVP-12-10	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND	
SVP-13	Farallon	SVP-13-4	4.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND	
	Farallon	SVP-13-10	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND	
SVP-14	Farallon	SVP-14-4	4.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND	
	Farallon	SVP-14-10	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND	
SVP-15	Farallon	SVP-15-4	4.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND	
	Farallon	SVP-15-10	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND	
SVP-16	Farallon	SVP-16-4	4.0	9/20/2022	< 25	< 25	---	< 25	< 25	<b>50</b>	< 25	<b>90</b>	< 25	< 250	---	---	ND	ND	
	Farallon	SVP-16-10	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	<b>30</b>	< 25	<b>90</b>	< 25	< 250	---	---	ND	ND	
SVP-17	Farallon	SVP-17-4	4.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND	
	Farallon	SVP-17-10	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND	
SVP-18	Farallon	SVP-18-4	4.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND	
	Farallon	SVP-18-10	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND	
	Farallon	SVP-18-10-DUP	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND	
<b>Calculated Industrial SGSL with 0.03 Attenuation Factor<sup>3</sup></b>					<b>67</b>	<b>100</b>	<b>870,000</b>	<b>180,000</b>	<b>15,000</b>	<b>160</b>	<b>43,000</b>	<b>15,000</b>	<b>8,700</b>	<b>100,000</b>	<b>83,000</b>	<b>5%<sup>4</sup></b>	<b>Varies</b>	<b>Varies</b>	

**Table 5  
Cumulative Summary of Volatile Organic Compounds in Soil Gas  
5355 East Airport Road  
Ontario, California  
Farallon PN: 1071-080-004**

Sample Location	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	Analytical Results (micrograms per cubic meter) <sup>2</sup>													
					PCE	TCE	Cyclohexane	Trichloro-fluoro-methane (Freon 11)	Dichloro difluoro-methane (Freon 12)	Ethylbenzene	Toluene	Total Xylenes	1,2,4-Trimethyl-benzene	Carbon Disulfide	TPH-g	Methane	Other VOCs	Tracer
SVP-19	Farallon	SVP-19-4	4.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
	Farallon	SVP-19-10	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
<b>Calculated Industrial SGSL with 0.03 Attenuation Factor<sup>3</sup></b>					<b>67</b>	<b>100</b>	<b>870,000</b>	<b>180,000</b>	<b>15,000</b>	<b>160</b>	<b>43,000</b>	<b>15,000</b>	<b>8,700</b>	<b>100,000</b>	<b>83,000</b>	<b>5%<sup>4</sup></b>	<b>Varies</b>	<b>Varies</b>

**NOTES:**

Results in **bold** denote concentrations detected at or above the laboratory reporting limit. Results in **bold** and highlighted **yellow** denote concentrations exceeding applicable SGSLs for the current property use (industrial/commercial).

< denotes analyte not detected at or exceeding the reporting limit listed.

--- denotes sample not analyzed or not applicable.

<sup>1</sup> Depth in feet below ground surface.

<sup>2</sup> Only detected VOCs shown in table; see lab reports for full list of analytes. Analyzed by EPA Methods 8260B/8260B-Modified (3/11/2022, 7/29/2016 (Modified), and 9/20/2022) or TO-15 (7/21/2016), unless otherwise noted.

<sup>3</sup> Except as noted (see Footnote 4), Calculated soil gas screening levels (SGSLs) were derived by dividing the May 2022 Department of Toxic Substances Control (DTSC) screening levels (shown in black) or November 2022 U.S. Environmental Protection Agency (EPA) Regional Screening Levels (shown in blue) for VOCs, and 2019 SFBWQCB Environmental Screening Levels (ESLs) for TPH-g (shown in green) for indoor air by the noted attenuation factor.

<sup>4</sup> Methane was compared against a Lower Explosive Limit of 5% as measured by a hand-held GemTech 5000 Flame Ionization Detector

C = sample was analyzed via TO-14 due to high concentration of analytes

Farallon = Farallon Consulting, LLC

ND = not detected at or above the laboratory reporting limit

Partner = Partner Engineering and Science, Inc.

PCE = tetrachloroethene

SGSL = soil gas screening level

TCE = trichloroethene

TPH-g = total petroleum hydrocarbons, gasoline range

**APPENDIX A  
BORING LOGS**

ADDITIONAL SUBSURFACE INVESTIGATION REPORT  
5355 East Airport Drive  
Ontario, California

Farallon PN: 1071-080 (Task 2)



# Log of Boring: SVP-11

<b>Client:</b> Prologis Inc	<b>Date/Time Started:</b> 9/16/22	<b>Depth to Water ATD (ft bgs):</b> NE
<b>Project:</b> 5355 Airport Drive	<b>Date/Time Completed:</b> 9/16/22	<b>Boring Diameter (in):</b> 3.0
<b>Location:</b> Ontario, California	<b>Drilling Company:</b> ABC Liovin	<b>Total Boring Depth (ft bgs):</b> 11.0
<b>Farallon PN:</b> 1071-080	<b>Drilling Method:</b> Direct Push	<b>Constructed Well Depth (ft bgs):</b> NA
<b>Logged By:</b> Nate Montoy	<b>Drilling Equipment:</b> Hand Auger; Geoprobe 6600	
<b>Reviewed By:</b> Kathy Lehnus	<b>Drilling Operator:</b> Chris K	
	<b>Sampler Type:</b> Acetate sleeve	

Depth (ft bgs)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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0	0.0-0.5': Gravel road base. Hand auger to 6.0' bgs to clear for utilities.	GW							Concrete
	0.5-11.0': Silty fine SAND (SM) with trace medium sand and gravel, brown (10YR 4/3), estimated loose, moist, no odor.	SM			0.9				Hydrated #8 Bentonite
	4.0': Cobbles.	SM					SVP-11-4.0		Dry #8 Bentonite #3 Sand Pack with Vapor Probe Dry #8 Bentonite
	6.0': Becomes dark olive brown (2.5YR 3/3).	SM			0.0				Hydrated #8 Bentonite
	9.0': Becomes dark yellowish-brown (10YR 4/4), estimated dense.	SM			100				Dry #8 Bentonite #3 Sand Pack with Vapor Probe Dry #8 Bentonite
	11.0': End of Boring.						SVP-11-10.0		

### Well Construction Information

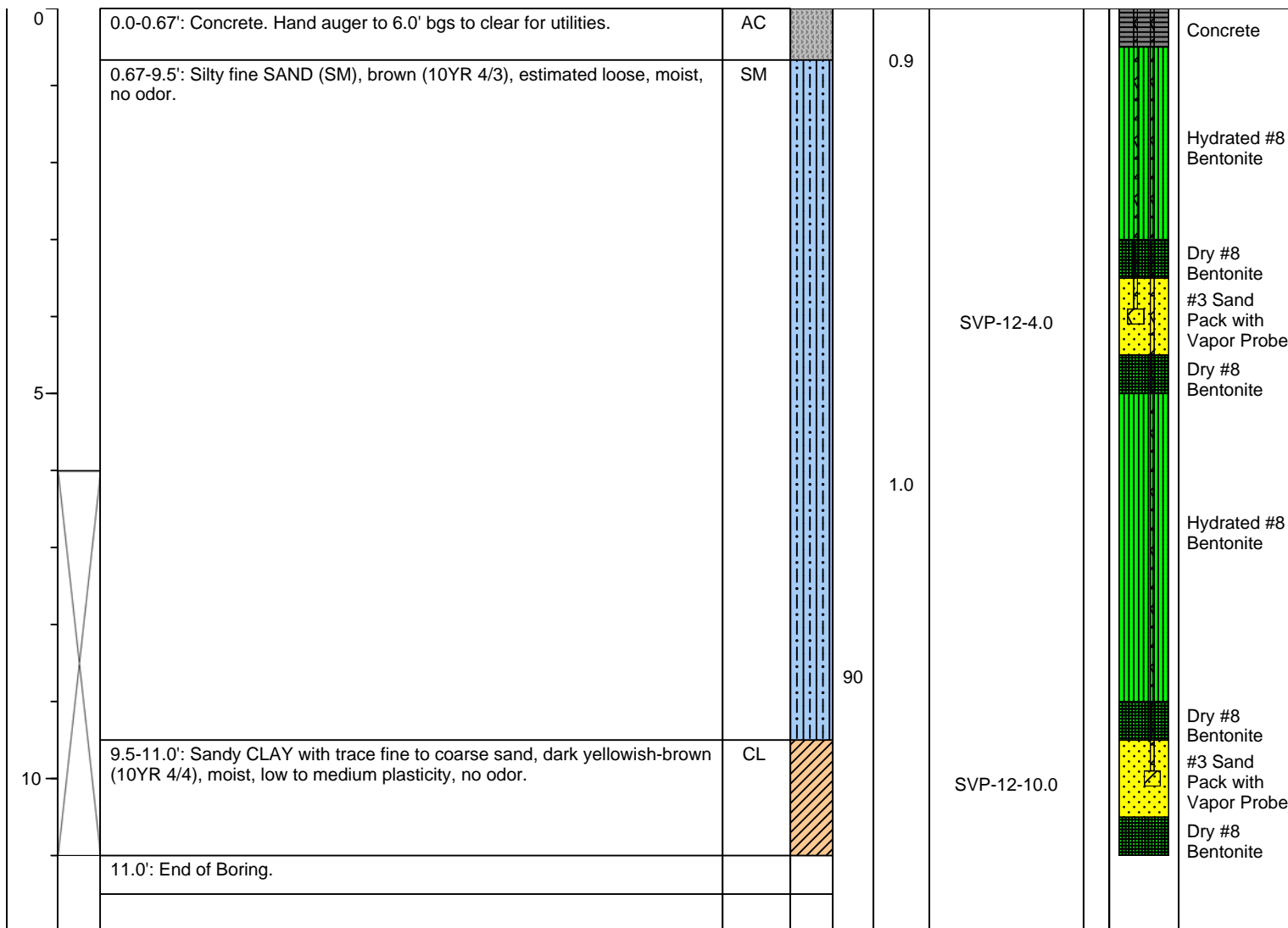
<b>Monument Type:</b> NA	<b>Filter Pack:</b> NA	<b>Ground Surface Elevation (ft):</b> NA
<b>Casing Diameter (in):</b> 1/4" Nylaflo	<b>Surface Seal:</b> NA	<b>Top of Casing Elevation (ft):</b> NA
<b>Screen Slot Size (in):</b> NA	<b>Annular Seal:</b> NA	<b>Surveyed Location:</b> X: NA Y: NA
<b>Screened Interval (ft bgs):</b> 4.0 and 10.0	<b>Boring Abandonment:</b> NA	<b>Unique Well ID:</b> NA



# Log of Boring: SVP-12

<b>Client:</b> Prologis Inc	<b>Date/Time Started:</b> 9/16/22	<b>Depth to Water ATD (ft bgs):</b> NE
<b>Project:</b> 5355 Airport Drive	<b>Date/Time Completed:</b> 9/16/22	<b>Boring Diameter (in):</b> 3.0
<b>Location:</b> Ontario, California	<b>Drilling Company:</b> ABC Liovin	<b>Total Boring Depth (ft bgs):</b> 11.0
<b>Farallon PN:</b> 1071-080	<b>Drilling Method:</b> Direct Push	<b>Constructed Well Depth (ft bgs):</b> NA
<b>Logged By:</b> Nate Montoy	<b>Drilling Equipment:</b> Hand Auger; Geoprobe 6600	
<b>Reviewed By:</b> Kathy Lehnus	<b>Drilling Operator:</b> Chris K	
	<b>Sampler Type:</b> Acetate sleeve	

Depth (ft bgs)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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<b>Monument Type:</b> NA	<b>Filter Pack:</b> NA	<b>Ground Surface Elevation (ft):</b> NA
<b>Casing Diameter (in):</b> 1/4" Nylaflow	<b>Surface Seal:</b> NA	<b>Top of Casing Elevation (ft):</b> NA
<b>Screen Slot Size (in):</b> NA	<b>Annular Seal:</b> NA	<b>Surveyed Location:</b> X: NA Y: NA
<b>Screened Interval (ft bgs):</b> 4.0 and 10.0	<b>Boring Abandonment:</b> NA	<b>Unique Well ID:</b> NA



# Log of Boring: SVP-13

<b>Client:</b> Prologis Inc	<b>Date/Time Started:</b> 9/16/22	<b>Depth to Water ATD (ft bgs):</b> NE
<b>Project:</b> 5355 Airport Drive	<b>Date/Time Completed:</b> 9/16/22	<b>Boring Diameter (in):</b> 3.0
<b>Location:</b> Ontario, California	<b>Drilling Company:</b> ABC Liovin	<b>Total Boring Depth (ft bgs):</b> 11.0
<b>Farallon PN:</b> 1071-080	<b>Drilling Method:</b> Direct Push	<b>Constructed Well Depth (ft bgs):</b> NA
<b>Logged By:</b> Nate Montoy	<b>Drilling Equipment:</b> Hand Auger; Geoprobe 6600	
<b>Reviewed By:</b> Kathy Lehnus	<b>Drilling Operator:</b> Chris K	
	<b>Sampler Type:</b> Acetate sleeve	

Depth (ft bgs)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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0	0.0-0.5'	Gravel road base. Hand auger to 6.0' bgs to clear for utilities.	GW						Concrete
	0.5-8.0'	Silty Fine SAND with trace gravel, brown (10YR 4/3), estimated loose, moist, no odor.	SM			0.8			Hydrated #8 Bentonite
							SVP-13-4.0		Dry #8 Bentonite #3 Sand Pack with Vapor Probe Dry #8 Bentonite
5						1.2			Hydrated #8 Bentonite
	8.0-11.0'	Becomes brown (10YR 5/3) with trace medium sand, moist, estimated dense, no odor.	SM						Dry #8 Bentonite
					50		SVP-13-10.0		Dry #8 Bentonite #3 Sand Pack with Vapor Probe Dry #8 Bentonite
10	11.0'	End of Boring.							

### Well Construction Information

<b>Monument Type:</b> NA	<b>Filter Pack:</b> NA	<b>Ground Surface Elevation (ft):</b> NA
<b>Casing Diameter (in):</b> 1/4" Nylaflow	<b>Surface Seal:</b> NA	<b>Top of Casing Elevation (ft):</b> NA
<b>Screen Slot Size (in):</b> NA	<b>Annular Seal:</b> NA	<b>Surveyed Location:</b> X: NA Y: NA
<b>Screened Interval (ft bgs):</b> 4.0 and 10.0	<b>Boring Abandonment:</b> NA	<b>Unique Well ID:</b> NA



# Log of Boring: SVP-14

<b>Client:</b> Prologis Inc	<b>Date/Time Started:</b> 9/16/22	<b>Depth to Water ATD (ft bgs):</b> NE
<b>Project:</b> 5355 Airport Drive	<b>Date/Time Completed:</b> 9/16/22	<b>Boring Diameter (in):</b> 3.0
<b>Location:</b> Ontario, California	<b>Drilling Company:</b> ABC Liovin	<b>Total Boring Depth (ft bgs):</b> 11.0
<b>Farallon PN:</b> 1071-080	<b>Drilling Method:</b> Direct Push	<b>Constructed Well Depth (ft bgs):</b> NA
<b>Logged By:</b> Nate Montoy	<b>Drilling Equipment:</b> Hand Auger; Geoprobe 6600	
<b>Reviewed By:</b> Kathy Lehnus	<b>Drilling Operator:</b> Chris K	
	<b>Sampler Type:</b> Acetate sleeve	

Depth (ft bgs)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
----------------	-----------------	------------------------	------	--------------	------------	------------	-----------	-----------------	----------------------------------

0	0.0-0.5'	Concrete. Hand auger to 6.0' bgs to clear for utilities.	AC						Concrete
	0.5-5.5'	Silty fine SAND (SM) with trace fine gravel, dark brown (10YR 3/3), estimated loose, moist, no odor.	SM			1.4			Hydrated #8 Bentonite
	3.0'	Becomes dark yellow-brown (10YR 4/4)	SM						Dry #8 Bentonite
	4.0'	Trace clay	SM				SVP-14-4.0		#3 Sand Pack with Vapor Probe
5	5.5-11.0'	Clayey SAND (SC) with fine sand and trace coarse sand, dark yellow-brown (10YR 4/4), moist, estimated medium dense, no odor.	SC			0.0			Dry #8 Bentonite
	8.0'	with medium sand with cobbles.	SC						Hydrated #8 Bentonite
10	10.0'	with coarse sand and trace coarse gravel.	SC				SVP-14-10.0		Dry #8 Bentonite
	11.0'	End of Boring.							#3 Sand Pack with Vapor Probe
									Dry #8 Bentonite

### Well Construction Information

<b>Monument Type:</b> NA	<b>Filter Pack:</b> NA	<b>Ground Surface Elevation (ft):</b> NA
<b>Casing Diameter (in):</b> 1/4" Nylaflow	<b>Surface Seal:</b> NA	<b>Top of Casing Elevation (ft):</b> NA
<b>Screen Slot Size (in):</b> NA	<b>Annular Seal:</b> NA	<b>Surveyed Location:</b> X: NA Y: NA
<b>Screened Interval (ft bgs):</b> 4.0 and 10.0	<b>Boring Abandonment:</b> NA	<b>Unique Well ID:</b> NA



# Log of Boring: SVP-15

<b>Client:</b> Prologis Inc	<b>Date/Time Started:</b> 9/16/22	<b>Depth to Water ATD (ft bgs):</b> NE
<b>Project:</b> 5355 Airport Drive	<b>Date/Time Completed:</b> 9/16/22	<b>Boring Diameter (in):</b> 3.0
<b>Location:</b> Ontario, California	<b>Drilling Company:</b> ABC Liovin	<b>Total Boring Depth (ft bgs):</b> 11.0
<b>Farallon PN:</b> 1071-080	<b>Drilling Method:</b> Direct Push	<b>Constructed Well Depth (ft bgs):</b> NA
<b>Logged By:</b> Nate Montoy	<b>Drilling Equipment:</b> Hand Auger; Geoprobe 6600	
<b>Reviewed By:</b> Kathy Lehnus	<b>Drilling Operator:</b> Chris K	
	<b>Sampler Type:</b> Acetate sleeve	

Depth (ft bgs)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
----------------	-----------------	------------------------	------	--------------	------------	------------	-----------	-----------------	----------------------------------

0	0.0-0.42': Asphalt. Hand auger to 6.0' bgs to clear for utilities.	AC							Concrete
	0.42-3.0': Silty SAND (SM) with fine sand and small and large subangular gravel, dark yellowish-brown (10YR 4/4), estimated loose, moist, no odor.	SM			0.3				Hydrated #8 Bentonite
	3.0': No gravel.	SM					SVP-15-4.0		Dry #8 Bentonite #3 Sand Pack with Vapor Probe
	5.0': Trace fine gravel.	SM							Dry #8 Bentonite
	7.0-10.0': Medium SAND (SP) with trace coarse sand, brown (10YR 5/3), moist, estimated loose, no odor.	SP			0.1				Hydrated #8 Bentonite
	10.0': Becomes coarse SAND with trace fine and coarse gravel.	SP		80			SVP-15-10.0		Dry #8 Bentonite #3 Sand Pack with Vapor Probe
	11.0': End of Boring.								Dry #8 Bentonite

### Well Construction Information

<b>Monument Type:</b> NA	<b>Filter Pack:</b> NA	<b>Ground Surface Elevation (ft):</b> NA
<b>Casing Diameter (in):</b> 1/4" Nylaflow	<b>Surface Seal:</b> NA	<b>Top of Casing Elevation (ft):</b> NA
<b>Screen Slot Size (in):</b> NA	<b>Annular Seal:</b> NA	<b>Surveyed Location:</b> X: NA Y: NA
<b>Screened Interval (ft bgs):</b> 4.0 and 10.0	<b>Boring Abandonment:</b> NA	<b>Unique Well ID:</b> NA





# Log of Boring: SVP-16

<b>Client:</b> Prologis Inc	<b>Date/Time Started:</b> 9/16/22	<b>Depth to Water ATD (ft bgs):</b> NE
<b>Project:</b> 5355 Airport Drive	<b>Date/Time Completed:</b> 9/16/22	<b>Boring Diameter (in):</b> 3.0
<b>Location:</b> Ontario, California	<b>Drilling Company:</b> ABC Liovin	<b>Total Boring Depth (ft bgs):</b> 11.0
<b>Farallon PN:</b> 1071-080	<b>Drilling Method:</b> Direct Push	<b>Constructed Well Depth (ft bgs):</b> NA
<b>Logged By:</b> Nate Montoy	<b>Drilling Equipment:</b> Hand Auger; Geoprobe 6600	
<b>Reviewed By:</b> Kathy Lehnus	<b>Drilling Operator:</b> Chris K	
	<b>Sampler Type:</b> Acetate sleeve	

Depth (ft bgs)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
----------------	-----------------	------------------------	------	--------------	------------	------------	-----------	-----------------	----------------------------------

0	0.0-0.42': Asphalt.	AC							Concrete
	0.42-1.0': Gravel road base. Hand auger to 6.0' bgs to clear for utilities.	GW				0.9			
	1.0-6.0': Silty fine SAND (SM), dark brown (10YR 3/3), estimated loose, moist, no odor.	SM							Hydrated #8 Bentonite
	5.0': Trace clay								Dry #8 Bentonite
	6.0-7.0': Clayey fine SAND (SC), very dark grayish-brown (10YR 3/2), estimated dense, moist, no odor.	SC				0.1			
	7.0-10.5': Fine SAND (SP), dark yellowish-brown (10YR 3/4), estimated loose, moist, no odor.	SP							Hydrated #8 Bentonite
	9.5': Becomes coarse SAND (SP), grayish-brown (10YR 5/2)				75				
	10.5-11.0': Sandy CLAY with trace fine to coarse sand, dark yellowish-brown (10YR 4/4), moist, low to medium plasticity, no odor.	CL							Dry #8 Bentonite
	11.0': End of Boring.								#3 Sand Pack with Vapor Probe
									Dry #8 Bentonite

### Well Construction Information

<b>Monument Type:</b>	NA	<b>Filter Pack:</b>	NA	<b>Ground Surface Elevation (ft):</b>	NA
<b>Casing Diameter (in):</b>	1/4" Nylaflo	<b>Surface Seal:</b>	NA	<b>Top of Casing Elevation (ft):</b>	NA
<b>Screen Slot Size (in):</b>	NA	<b>Annular Seal:</b>	NA	<b>Surveyed Location: X:</b>	NA
<b>Screened Interval (ft bgs):</b>	4.0 and 10.0	<b>Boring Abandonment:</b>	NA	<b>Y:</b>	NA
				<b>Unique Well ID:</b>	NA



# Log of Boring: SVP-17

<b>Client:</b> Prologis Inc	<b>Date/Time Started:</b> 9/16/22	<b>Depth to Water ATD (ft bgs):</b> NE
<b>Project:</b> 5355 Airport Drive	<b>Date/Time Completed:</b> 9/16/22	<b>Boring Diameter (in):</b> 3.0
<b>Location:</b> Ontario, California	<b>Drilling Company:</b> ABC Liovin	<b>Total Boring Depth (ft bgs):</b> 11.0
<b>Farallon PN:</b> 1071-080	<b>Drilling Method:</b> Direct Push	<b>Constructed Well Depth (ft bgs):</b> NA
<b>Logged By:</b> Nate Montoy	<b>Drilling Equipment:</b> Hand Auger; Geoprobe 6600	
<b>Reviewed By:</b> Kathy Lehnus	<b>Drilling Operator:</b> Chris K	
	<b>Sampler Type:</b> Acetate sleeve	

Depth (ft bgs)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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0	0.0-0.5'	Concrete. Hand auger to 6.0' bgs to clear for utilities.	AC						Concrete
	0.5-4.5'	Silty medium SAND (SM) with trace fine to coarse gravel, dark brown (10YR 3/3), estimated loose, moist, no odor.	SM			0.1			Hydrated #8 Bentonite
							SVP-17-4.0		Dry #8 Bentonite #3 Sand Pack with Vapor Probe
5	4.5-11.0'	Coarse SAND (SP) with trace medium sand and fine to coarse subangular gravel, grayish-brown (10YR 5/2), estimated loose, moist, no odor.	SP			0.1			Dry #8 Bentonite
									Hydrated #8 Bentonite
10	10.0'	Cobbles				80			Dry #8 Bentonite
							SVP-17-10.0		#3 Sand Pack with Vapor Probe
	11.0'	End of Boring.							Dry #8 Bentonite

### Well Construction Information

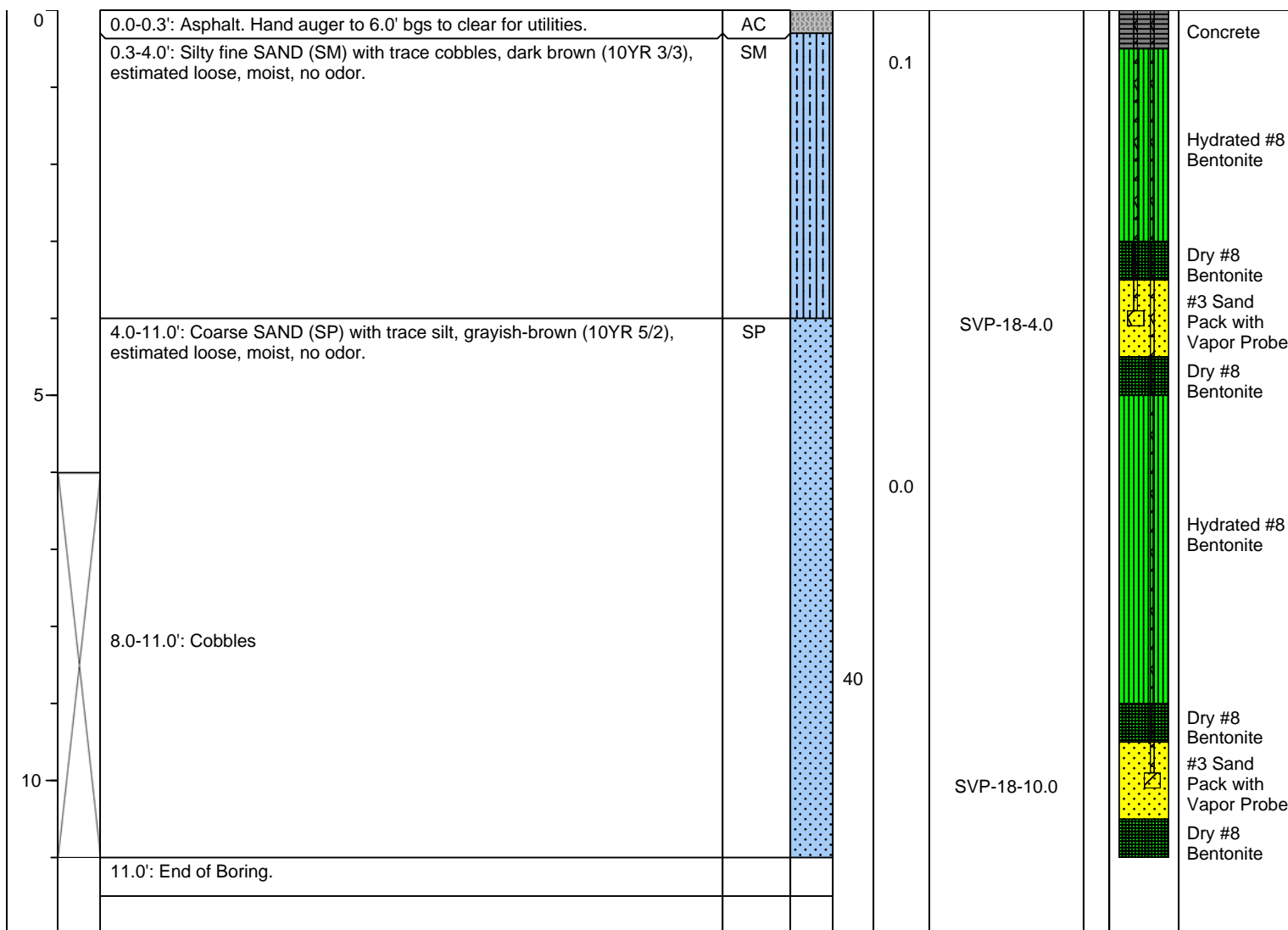
<b>Monument Type:</b> NA	<b>Filter Pack:</b> NA	<b>Ground Surface Elevation (ft):</b> NA
<b>Casing Diameter (in):</b> 1/4" Nylaflow	<b>Surface Seal:</b> NA	<b>Top of Casing Elevation (ft):</b> NA
<b>Screen Slot Size (in):</b> NA	<b>Annular Seal:</b> NA	<b>Surveyed Location:</b> X: NA Y: NA
<b>Screened Interval (ft bgs):</b> 4.0 and 10.0	<b>Boring Abandonment:</b> NA	<b>Unique Well ID:</b> NA



# Log of Boring: SVP-18

<b>Client:</b> Prologis Inc	<b>Date/Time Started:</b> 9/16/22	<b>Depth to Water ATD (ft bgs):</b> NE
<b>Project:</b> 5355 Airport Drive	<b>Date/Time Completed:</b> 9/16/22	<b>Boring Diameter (in):</b> 3.0
<b>Location:</b> Ontario, California	<b>Drilling Company:</b> ABC Liovin	<b>Total Boring Depth (ft bgs):</b> 11.0
<b>Farallon PN:</b> 1071-080	<b>Drilling Method:</b> Direct Push	<b>Constructed Well Depth (ft bgs):</b> NA
<b>Logged By:</b> Nate Montoy	<b>Drilling Equipment:</b> Hand Auger; Geoprobe 6600	
<b>Reviewed By:</b> Kathy Lehnus	<b>Drilling Operator:</b> Chris K	
	<b>Sampler Type:</b> Acetate sleeve	

Depth (ft bgs)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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<b>Monument Type:</b> NA	<b>Filter Pack:</b> NA	<b>Ground Surface Elevation (ft):</b> NA
<b>Casing Diameter (in):</b> 1/4" Nylaflo	<b>Surface Seal:</b> NA	<b>Top of Casing Elevation (ft):</b> NA
<b>Screen Slot Size (in):</b> NA	<b>Annular Seal:</b> NA	<b>Surveyed Location:</b> X: NA Y: NA
<b>Screened Interval (ft bgs):</b> 4.0 and 10.0	<b>Boring Abandonment:</b> NA	<b>Unique Well ID:</b> NA



# Log of Boring: SVP-19

<b>Client:</b> Prologis Inc	<b>Date/Time Started:</b> 9/16/22	<b>Depth to Water ATD (ft bgs):</b> NE
<b>Project:</b> 5355 Airport Drive	<b>Date/Time Completed:</b> 9/16/22	<b>Boring Diameter (in):</b> 3.0
<b>Location:</b> Ontario, California	<b>Drilling Company:</b> ABC Liovin	<b>Total Boring Depth (ft bgs):</b> 11.0
<b>Farallon PN:</b> 1071-080	<b>Drilling Method:</b> Direct Push	<b>Constructed Well Depth (ft bgs):</b> NA
<b>Logged By:</b> Nate Montoy	<b>Drilling Equipment:</b> Hand Auger; Geoprobe 6600	
<b>Reviewed By:</b> Kathy Lehnus	<b>Drilling Operator:</b> Chris K	
	<b>Sampler Type:</b> Acetate sleeve	

Depth (ft bgs)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
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0	0.0-0.3'	Asphalt. Hand auger to 6.0' bgs to clear for utilities.	AC						Concrete
	0.3-4.0'	Silty fine SAND (SM) with trace fine and coarse gravel, dark brown (10YR 3/3), estimated loose, moist, no odor.	SM			0.3			Hydrated #8 Bentonite
	4.0-5.5'	Medium SAND (SP) with trace coarse sand, grayish-brown (10YR 5/2), estimated loose, moist, no odor.	SP				SVP-19-4.0		Dry #8 Bentonite #3 Sand Pack with Vapor Probe Dry #8 Bentonite
5	5.5-7.0'	Clayey fine SAND (SC), very dark grayish-brown (10YR 3/2), estimated medium dense, moist, no odor.	SC			0.1			Hydrated #8 Bentonite
	7.0-11.0'	Silty fine SAND (SM) with trace medium sand, brown (10YR 4/3), estimated loose, moist, no odor.	SM			50			Dry #8 Bentonite #3 Sand Pack with Vapor Probe Dry #8 Bentonite
10	11.0'	End of Boring.					SVP-19-10.0		

### Well Construction Information

<b>Monument Type:</b> NA	<b>Filter Pack:</b> NA	<b>Ground Surface Elevation (ft):</b> NA
<b>Casing Diameter (in):</b> 1/4" Nylaflow	<b>Surface Seal:</b> NA	<b>Top of Casing Elevation (ft):</b> NA
<b>Screen Slot Size (in):</b> NA	<b>Annular Seal:</b> NA	<b>Surveyed Location:</b> X: NA Y: NA
<b>Screened Interval (ft bgs):</b> 4.0 and 10.0	<b>Boring Abandonment:</b> NA	<b>Unique Well ID:</b> NA

**APPENDIX B**  
**LABORATORY ANALYTICAL REPORTS**

ADDITIONAL SUBSURFACE INVESTIGATION REPORT  
5355 East Airport Drive  
Ontario, California

Farallon PN: 1071-080 (Task 2)



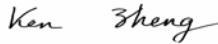
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## CASE NARRATIVE

Authorized Signature Name / Title (print)	Ken Zheng, President
Signature / Date	 Ken Zheng, President 09/23/2022 17:11:44
Laboratory Job No. (Certificate of Analysis No.)	2209-00150
Project Name / No.	5355 E. Airport Dr., Ontario, CA 91761 1071-080-002
Dates Sampled (from/to)	09/20/22 To 09/20/22
Dates Received (from/to)	09/20/22 To 09/20/22
Dates Reported (from/to)	09/23/22 To 9/23/2022
Chains of Custody Received	Yes

Comments:

### Subcontracting

Organic Analyses

No analyses sub-contracted

Other Analyses

No analyses sub-contracted

### Sample Condition(s)

All samples intact



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## CERTIFICATE OF ANALYSIS

2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 001 <b>SVP-13-4</b>										Date & Time Sampled: 09/20/22 @ 7:49			
Sample Matrix: Air													
Purge Volume Sampled: 3													
[VOCs by GCMS]													
Acetone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Amyl Methyl Ether (TAME)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Benzene	<0.0060	0.006	0.025	µg/L	<6.0	6.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromodichloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromoform	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Butanol (TBA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Butanone (MEK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
sec-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
tert-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Disulfide	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Tetrachloride	<0.0063	0.00625	0.013	µg/L	<6.3	6.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroform	<0.0078	0.00775	0.025	µg/L	<7.8	7.8	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromoethane (EDB)	<0.0031	0.003125	0.025	µg/L	<3.1	3.1	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromo-3-Chloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,4-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dichlorodifluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 001 <b>SVP-13-4</b>										Date & Time Sampled: 09/20/22 @ 7:49			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
.....continued													
1,1-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
1,2-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
1,1-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
cis-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
trans-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
1,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
1,3-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
2,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
1,1-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
cis-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
trans-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Diisopropyl Ether (DiPE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Ethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Ethyl-t-Butyl Ether (EtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Hexachlorobutadiene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
2-Hexanone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25		EPA 8260B	09/20/22	IG
Isopropylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
4-Isopropyltoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Methylene Chloride	<0.0125	0.0125	0.03	µg/L	<12.5	12.5	30	µg/m3	0.25		EPA 8260B	09/20/22	IG
4-Methyl-2-Pentanone (MIBK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25		EPA 8260B	09/20/22	IG
Methyl-t-butyl Ether (MtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Naphthalene	<0.0053	0.00525	0.013	µg/L	<5.3	5.3	13	µg/m3	0.25		EPA 8260B	09/20/22	IG
n-Propylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Styrene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
1,1,1,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
1,1,2,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Tetrachloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Toluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
1,2,3-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
1,2,4-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG

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## CERTIFICATE OF ANALYSIS

2209-00150

FARALLON CONSULTING, LLC  
BRENDEN TAYLOR  
27 MAUCHLY  
SUITE 213  
IRVINE, CA 92618

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Project: 5355 E. Airport Dr., Ontario, CA 91761

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 001 <b>SVP-13-4</b>										Date & Time Sampled: 09/20/22 @ 7:49			
Sample Matrix: Air													
Purge Volume Sampled: 3													
.....continued													
1,1,1-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichloropropane	<0.0050	0.005	0.025	µg/L	<5.0	5.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorofluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorotrifluoroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3,5-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Vinyl Chloride	<0.0006	0.0006	0.013	µg/L	<0.6	0.6	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
m,p-Xylenes	<0.0250	0.025	0.050	µg/L	<25.0	25.0	50	µg/m3	0.25	EPA 8260B	09/20/22	IG	
o-Xylene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Surrogates]													
Dibromofluoromethane	102		70-130	%REC						EPA 8260B	09/20/22	IG	
Toluene-D8	97		70-130	%REC						EPA 8260B	09/20/22	IG	
Bromofluorobenzene	88		70-130	%REC						EPA 8260B	09/20/22	IG	

Sample: 002 <b>SVP-13-10</b>										Date & Time Sampled: 09/20/22 @ 8:13			
Sample Matrix: Air													
Purge Volume Sampled: 3													
[VOCs by GCMS]													
Acetone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Amyl Methyl Ether (TAME)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Benzene	<0.0060	0.006	0.025	µg/L	<6.0	6.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromodichloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromoform	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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SUITE 213  
IRVINE, CA 92618

Project: 5355 E. Airport Dr., Ontario, CA 91761

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 002 <b>SVP-13-10</b>										Date & Time Sampled: 09/20/22 @ 8:13			
Sample Matrix: Air													
Purge Volume Sampled: 3													
.....continued													
t-Butanol (TBA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Butanone (MEK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
sec-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
tert-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Disulfide	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Tetrachloride	<0.0063	0.00625	0.013	µg/L	<6.3	6.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroform	<0.0078	0.00775	0.025	µg/L	<7.8	7.8	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromoethane (EDB)	<0.0031	0.003125	0.025	µg/L	<3.1	3.1	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromo-3-Chloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,4-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dichlorodifluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 002 <b>SVP-13-10</b>										Date & Time Sampled: 09/20/22 @ 8:13			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
.....continued													
cis-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
trans-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Diisopropyl Ether (DiPE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Ethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Ethyl-t-Butyl Ether (EtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Hexachlorobutadiene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
2-Hexanone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25		EPA 8260B	09/20/22	IG
Isopropylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
4-Isopropyltoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Methylene Chloride	<0.0125	0.0125	0.03	µg/L	<12.5	12.5	30	µg/m3	0.25		EPA 8260B	09/20/22	IG
4-Methyl-2-Pentanone (MIBK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25		EPA 8260B	09/20/22	IG
Methyl-t-butyl Ether (MtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Naphthalene	<0.0053	0.00525	0.013	µg/L	<5.3	5.3	13	µg/m3	0.25		EPA 8260B	09/20/22	IG
n-Propylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Styrene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
1,1,1,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
1,1,2,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Tetrachloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Toluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
1,2,3-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
1,2,4-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
1,1,1-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
1,1,2-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Trichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
1,2,3-Trichloropropane	<0.0050	0.005	0.025	µg/L	<5.0	5.0	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Trichlorofluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Trichlorotrifluoroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
1,2,4-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
1,3,5-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Vinyl Chloride	<0.0006	0.0006	0.013	µg/L	<0.6	0.6	13	µg/m3	0.25		EPA 8260B	09/20/22	IG

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## CERTIFICATE OF ANALYSIS

2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 002 <b>SVP-13-10</b>										Date & Time Sampled: 09/20/22 @ 8:13			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
.....continued													
m,p-Xylenes	<0.0250	0.025	0.050	µg/L	<25.0	25.0	50	µg/m3	0.25	EPA 8260B	09/20/22	IG	
o-Xylene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Surrogates]													
Dibromofluoromethane	105		70-130	%REC						EPA 8260B	09/20/22	IG	
Toluene-D8	101		70-130	%REC						EPA 8260B	09/20/22	IG	
Bromofluorobenzene	90		70-130	%REC						EPA 8260B	09/20/22	IG	
Sample: 003 <b>SVP-11-4</b>										Date & Time Sampled: 09/20/22 @ 8:37			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
[VOCs by GCMS]													
Acetone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Amyl Methyl Ether (TAME)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Benzene	<0.0060	0.006	0.025	µg/L	<6.0	6.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromodichloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromoform	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Butanol (TBA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Butanone (MEK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
sec-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
tert-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Disulfide	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Tetrachloride	<0.0063	0.00625	0.013	µg/L	<6.3	6.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

FARALLON CONSULTING, LLC  
BRENDEN TAYLOR  
27 MAUCHLY  
SUITE 213  
IRVINE, CA 92618

Project: 5355 E. Airport Dr., Ontario, CA 91761

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 003 <b>SVP-11-4</b>										Date & Time Sampled: 09/20/22 @ 8:37			
Sample Matrix: Air													
Purge Volume Sampled: 3													
.....continued													
Chloroform	<0.0078	0.00775	0.025	µg/L	<7.8	7.8	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromoethane (EDB)	<0.0031	0.003125	0.025	µg/L	<3.1	3.1	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromo-3-Chloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,4-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dichlorodifluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Diisopropyl Ether (DiPE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethyl-t-Butyl Ether (EtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Hexachlorobutadiene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Hexanone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Isopropylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Isopropyltoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 003 <b>SVP-11-4</b>										Date & Time Sampled: 09/20/22 @ 8:37			
Sample Matrix: Air													
Purge Volume Sampled: 3													
.....continued													
Methylene Chloride	<0.0125	0.0125	0.03	µg/L	<12.5	12.5	30	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Methyl-2-Pentanone (MIBK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Methyl-t-butyl Ether (MtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Naphthalene	<0.0053	0.00525	0.013	µg/L	<5.3	5.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Propylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Styrene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,1,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Tetrachloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Toluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,1-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichloropropane	<0.0050	0.005	0.025	µg/L	<5.0	5.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorofluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorotrifluoroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3,5-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Vinyl Chloride	<0.0006	0.0006	0.013	µg/L	<0.6	0.6	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
m,p-Xylenes	<0.0250	0.025	0.050	µg/L	<25.0	25.0	50	µg/m3	0.25	EPA 8260B	09/20/22	IG	
o-Xylene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Surrogates]													
Dibromofluoromethane	100		70-130	%REC						EPA 8260B	09/20/22	IG	
Toluene-D8	104		70-130	%REC						EPA 8260B	09/20/22	IG	
Bromofluorobenzene	106		70-130	%REC						EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

FARALLON CONSULTING, LLC  
BRENDEN TAYLOR  
27 MAUCHLY  
SUITE 213  
IRVINE, CA 92618

Project: 5355 E. Airport Dr., Ontario, CA 91761

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 004 <b>SVP-11-10</b>										Date & Time Sampled: 09/20/22 @ 9:01			
Sample Matrix: Air													
Purge Volume Sampled: 3													
[VOCs by GCMS]													
Acetone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Amyl Methyl Ether (TAME)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Benzene	<0.0060	0.006	0.025	µg/L	<6.0	6.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromodichloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromoform	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Butanol (TBA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Butanone (MEK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
sec-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
tert-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Disulfide	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Tetrachloride	<0.0063	0.00625	0.013	µg/L	<6.3	6.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroform	<0.0078	0.00775	0.025	µg/L	<7.8	7.8	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromoethane (EDB)	<0.0031	0.003125	0.025	µg/L	<3.1	3.1	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromo-3-Chloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,4-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dichlorodifluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 004 <b>SVP-11-10</b>										Date & Time Sampled: 09/20/22 @ 9:01			
Sample Matrix: Air													
Purge Volume Sampled: 3													
.....continued													
1,1-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Diisopropyl Ether (DiPE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethyl-t-Butyl Ether (EtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Hexachlorobutadiene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Hexanone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Isopropylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Isopropyltoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Methylene Chloride	<0.0125	0.0125	0.03	µg/L	<12.5	12.5	30	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Methyl-2-Pentanone (MIBK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Methyl-t-butyl Ether (MtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Naphthalene	<0.0053	0.00525	0.013	µg/L	<5.3	5.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Propylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Styrene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,1,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Tetrachloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Toluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 004 <b>SVP-11-10</b>										Date & Time Sampled: 09/20/22 @ 9:01			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
.....continued													
1,1,1-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichloropropane	<0.0050	0.005	0.025	µg/L	<5.0	5.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorofluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorotrifluoroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3,5-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Vinyl Chloride	<0.0006	0.0006	0.013	µg/L	<0.6	0.6	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
m,p-Xylenes	<0.0250	0.025	0.050	µg/L	<25.0	25.0	50	µg/m3	0.25	EPA 8260B	09/20/22	IG	
o-Xylene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Surrogates]													
Dibromofluoromethane	105		70-130	%REC						EPA 8260B	09/20/22	IG	
Toluene-D8	107		70-130	%REC						EPA 8260B	09/20/22	IG	
Bromofluorobenzene	106		70-130	%REC						EPA 8260B	09/20/22	IG	

Sample: 005 <b>SVP-14-4</b>										Date & Time Sampled: 09/20/22 @ 9:25			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
[VOCs by GCMS]													
Acetone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Amyl Methyl Ether (TAME)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Benzene	<0.0060	0.006	0.025	µg/L	<6.0	6.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromodichloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromoform	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 005 <b>SVP-14-4</b>										Date & Time Sampled: 09/20/22 @ 9:25			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
.....continued													
t-Butanol (TBA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Butanone (MEK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
sec-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
tert-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Disulfide	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Tetrachloride	<0.0063	0.00625	0.013	µg/L	<6.3	6.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroform	<0.0078	0.00775	0.025	µg/L	<7.8	7.8	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromoethane (EDB)	<0.0031	0.003125	0.025	µg/L	<3.1	3.1	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromo-3-Chloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,4-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dichlorodifluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 005 <b>SVP-14-4</b>										Date & Time Sampled: 09/20/22 @ 9:25			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
.....continued													
cis-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Diisopropyl Ether (DiPE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethyl-t-Butyl Ether (EtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Hexachlorobutadiene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Hexanone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Isopropylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Isopropyltoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Methylene Chloride	<0.0125	0.0125	0.03	µg/L	<12.5	12.5	30	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Methyl-2-Pentanone (MIBK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Methyl-t-butyl Ether (MtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Naphthalene	<0.0053	0.00525	0.013	µg/L	<5.3	5.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Propylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Styrene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,1,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Tetrachloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Toluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,1-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichloropropane	<0.0050	0.005	0.025	µg/L	<5.0	5.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorofluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorotrifluoroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3,5-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Vinyl Chloride	<0.0006	0.0006	0.013	µg/L	<0.6	0.6	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 005 <b>SVP-14-4</b>										Date & Time Sampled: 09/20/22 @ 9:25			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
.....continued													
m,p-Xylenes	<0.0250	0.025	0.050	µg/L	<25.0	25.0	50	µg/m3	0.25	EPA 8260B	09/20/22	IG	
o-Xylene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Surrogates]													
Dibromofluoromethane	103		70-130	%REC						EPA 8260B	09/20/22	IG	
Toluene-D8	107		70-130	%REC						EPA 8260B	09/20/22	IG	
Bromofluorobenzene	110		70-130	%REC						EPA 8260B	09/20/22	IG	
Sample: 006 <b>SVP-14-10</b>										Date & Time Sampled: 09/20/22 @ 9:50			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
[VOCs by GCMS]													
Acetone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Amyl Methyl Ether (TAME)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Benzene	<0.0060	0.006	0.025	µg/L	<6.0	6.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromodichloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromoform	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Butanol (TBA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Butanone (MEK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
sec-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
tert-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Disulfide	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Tetrachloride	<0.0063	0.00625	0.013	µg/L	<6.3	6.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 006 <b>SVP-14-10</b>										Date & Time Sampled: 09/20/22 @ 9:50			
Sample Matrix: Air													
Purge Volume Sampled: 3													
.....continued													
Chloroform	<0.0078	0.00775	0.025	µg/L	<7.8	7.8	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromoethane (EDB)	<0.0031	0.003125	0.025	µg/L	<3.1	3.1	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromo-3-Chloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,4-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dichlorodifluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Diisopropyl Ether (DiPE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethyl-t-Butyl Ether (EtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Hexachlorobutadiene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Hexanone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Isopropylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Isopropyltoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 006 <b>SVP-14-10</b>										Date & Time Sampled: 09/20/22 @ 9:50			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
.....continued													
Methylene Chloride	<0.0125	0.0125	0.03	µg/L	<12.5	12.5	30	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Methyl-2-Pentanone (MIBK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Methyl-t-butyl Ether (MtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Naphthalene	<0.0053	0.00525	0.013	µg/L	<5.3	5.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Propylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Styrene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,1,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Tetrachloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Toluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,1-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichloropropane	<0.0050	0.005	0.025	µg/L	<5.0	5.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorofluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorotrifluoroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3,5-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Vinyl Chloride	<0.0006	0.0006	0.013	µg/L	<0.6	0.6	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
m,p-Xylenes	<0.0250	0.025	0.050	µg/L	<25.0	25.0	50	µg/m3	0.25	EPA 8260B	09/20/22	IG	
o-Xylene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Surrogates]													
Dibromofluoromethane	104		70-130	%REC						EPA 8260B	09/20/22	IG	
Toluene-D8	108		70-130	%REC						EPA 8260B	09/20/22	IG	
Bromofluorobenzene	111		70-130	%REC						EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 007 <b>SVP-16-4</b>										Date & Time Sampled: 09/20/22 @ 10:13			
Sample Matrix: Air													
Purge Volume Sampled: 3													
[VOCs by GCMS]													
Acetone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Amyl Methyl Ether (TAME)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Benzene	<0.0060	0.006	0.025	µg/L	<6.0	6.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromodichloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromoform	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Butanol (TBA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Butanone (MEK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
sec-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
tert-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Disulfide	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Tetrachloride	<0.0063	0.00625	0.013	µg/L	<6.3	6.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroform	<0.0078	0.00775	0.025	µg/L	<7.8	7.8	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromoethane (EDB)	<0.0031	0.003125	0.025	µg/L	<3.1	3.1	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromo-3-Chloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,4-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dichlorodifluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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2209-00150

FARALLON CONSULTING, LLC  
BRENDEN TAYLOR  
27 MAUCHLY  
SUITE 213  
IRVINE, CA 92618

Project: 5355 E. Airport Dr., Ontario, CA 91761

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 007 <b>SVP-16-4</b>										Date & Time Sampled: 09/20/22 @ 10:13			
Sample Matrix: Air													
Purge Volume Sampled: 3													
.....continued													
1,1-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Diisopropyl Ether (DiPE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethylbenzene	<b>0.050</b>	0.0125	0.025	µg/L	<b>50</b>	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethyl-t-Butyl Ether (EtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Hexachlorobutadiene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Hexanone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Isopropylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Isopropyltoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Methylene Chloride	<0.0125	0.0125	0.03	µg/L	<12.5	12.5	30	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Methyl-2-Pentanone (MIBK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Methyl-t-butyl Ether (MtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Naphthalene	<0.0053	0.00525	0.013	µg/L	<5.3	5.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Propylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Styrene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,1,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Tetrachloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Toluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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BRENDEN TAYLOR  
27 MAUCHLY  
SUITE 213  
IRVINE, CA 92618

Project: 5355 E. Airport Dr., Ontario, CA 91761

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 007 <b>SVP-16-4</b>										Date & Time Sampled: 09/20/22 @ 10:13			
Sample Matrix: Air													
Purge Volume Sampled: 3													
.....continued													
1,1,1-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichloropropane	<0.0050	0.005	0.025	µg/L	<5.0	5.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorofluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorotrifluoroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3,5-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Vinyl Chloride	<0.0006	0.0006	0.013	µg/L	<0.6	0.6	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
m,p-Xylenes	<b>0.060</b>	0.025	0.050	µg/L	<b>60</b>	25.0	50	µg/m3	0.25	EPA 8260B	09/20/22	IG	
o-Xylene	<b>0.030</b>	0.0125	0.025	µg/L	<b>30</b>	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Surrogates]													
Dibromofluoromethane	92		70-130	%REC						EPA 8260B	09/20/22	IG	
Toluene-D8	106		70-130	%REC						EPA 8260B	09/20/22	IG	
Bromofluorobenzene	110		70-130	%REC						EPA 8260B	09/20/22	IG	

Sample: 008 <b>SVP-16-10</b>										Date & Time Sampled: 09/20/22 @ 10:37			
Sample Matrix: Air													
Purge Volume Sampled: 3													
[VOCs by GCMS]													
Acetone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Amyl Methyl Ether (TAME)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Benzene	<0.0060	0.006	0.025	µg/L	<6.0	6.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromodichloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromoform	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

FARALLON CONSULTING, LLC  
BRENDEN TAYLOR  
27 MAUCHLY  
SUITE 213  
IRVINE, CA 92618

Project: 5355 E. Airport Dr., Ontario, CA 91761

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 008 <b>SVP-16-10</b>										Date & Time Sampled: 09/20/22 @ 10:37			
Sample Matrix: Air													
Purge Volume Sampled: 3													
.....continued													
t-Butanol (TBA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Butanone (MEK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
sec-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
tert-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Disulfide	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Tetrachloride	<0.0063	0.00625	0.013	µg/L	<6.3	6.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroform	<0.0078	0.00775	0.025	µg/L	<7.8	7.8	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromoethane (EDB)	<0.0031	0.003125	0.025	µg/L	<3.1	3.1	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromo-3-Chloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,4-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dichlorodifluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

FARALLON CONSULTING, LLC  
BRENDEN TAYLOR  
27 MAUCHLY  
SUITE 213  
IRVINE, CA 92618

Project: 5355 E. Airport Dr., Ontario, CA 91761

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 008 <b>SVP-16-10</b>										Date & Time Sampled: 09/20/22 @ 10:37			
Sample Matrix: Air													
Purge Volume Sampled: 3													
.....continued													
cis-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Diisopropyl Ether (DiPE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethylbenzene	<b>0.030</b>	0.0125	0.025	µg/L	<b>30</b>	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethyl-t-Butyl Ether (EtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Hexachlorobutadiene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Hexanone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Isopropylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Isopropyltoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Methylene Chloride	<0.0125	0.0125	0.03	µg/L	<12.5	12.5	30	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Methyl-2-Pentanone (MIBK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Methyl-t-butyl Ether (MtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Naphthalene	<0.0053	0.00525	0.013	µg/L	<5.3	5.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Propylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Styrene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,1,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Tetrachloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Toluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,1-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichloropropane	<0.0050	0.005	0.025	µg/L	<5.0	5.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorofluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorotrifluoroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3,5-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Vinyl Chloride	<0.0006	0.0006	0.013	µg/L	<0.6	0.6	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 008 <b>SVP-16-10</b>										Date & Time Sampled: 09/20/22 @ 10:37			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
.....continued													
m,p-Xylenes	<b>0.060</b>	0.025	0.050	µg/L	<b>60</b>	25.0	50	µg/m3	0.25	EPA 8260B	09/20/22	IG	
o-Xylene	<b>0.030</b>	0.0125	0.025	µg/L	<b>30</b>	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.1250	0.125	0.25	µg/L		125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Surrogates]													
Dibromofluoromethane	105		70-130	%REC						EPA 8260B	09/20/22	IG	
Toluene-D8	109		70-130	%REC						EPA 8260B	09/20/22	IG	
Bromofluorobenzene	115		70-130	%REC						EPA 8260B	09/20/22	IG	
Sample: 009 <b>SVP-18-4</b>										Date & Time Sampled: 09/20/22 @ 11:05			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
[VOCs by GCMS]													
Acetone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Amyl Methyl Ether (TAME)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Benzene	<0.0060	0.006	0.025	µg/L	<6.0	6.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromodichloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromoform	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Butanol (TBA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Butanone (MEK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
sec-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
tert-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Disulfide	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Tetrachloride	<0.0063	0.00625	0.013	µg/L	<6.3	6.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 009 <b>SVP-18-4</b>										Date & Time Sampled: 09/20/22 @ 11:05			
Sample Matrix: Air													
Purge Volume Sampled: 3													
.....continued													
Chloroform	<0.0078	0.00775	0.025	µg/L	<7.8	7.8	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromoethane (EDB)	<0.0031	0.003125	0.025	µg/L	<3.1	3.1	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromo-3-Chloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,4-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dichlorodifluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Diisopropyl Ether (DiPE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethyl-t-Butyl Ether (EtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Hexachlorobutadiene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Hexanone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Isopropylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Isopropyltoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 009 <b>SVP-18-4</b>										Date & Time Sampled: 09/20/22 @ 11:05			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
.....continued													
Methylene Chloride	<0.0125	0.0125	0.03	µg/L	<12.5	12.5	30	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Methyl-2-Pentanone (MIBK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Methyl-t-butyl Ether (MtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Naphthalene	<0.0053	0.00525	0.013	µg/L	<5.3	5.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Propylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Styrene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,1,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Tetrachloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Toluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,1-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichloropropane	<0.0050	0.005	0.025	µg/L	<5.0	5.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorofluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorotrifluoroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3,5-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Vinyl Chloride	<0.0006	0.0006	0.013	µg/L	<0.6	0.6	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
m,p-Xylenes	<0.0250	0.025	0.050	µg/L	<25.0	25.0	50	µg/m3	0.25	EPA 8260B	09/20/22	IG	
o-Xylene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Surrogates]													
Dibromofluoromethane	100		70-130	%REC						EPA 8260B	09/20/22	IG	
Toluene-D8	103		70-130	%REC						EPA 8260B	09/20/22	IG	
Bromofluorobenzene	109		70-130	%REC						EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 010 <b>SVP-18-10</b>										Date & Time Sampled: 09/20/22 @ 11:29			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
[VOCs by GCMS]													
Acetone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Amyl Methyl Ether (TAME)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Benzene	<0.0060	0.006	0.025	µg/L	<6.0	6.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromodichloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromoform	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Butanol (TBA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Butanone (MEK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
sec-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
tert-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Disulfide	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Tetrachloride	<0.0063	0.00625	0.013	µg/L	<6.3	6.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroform	<0.0078	0.00775	0.025	µg/L	<7.8	7.8	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromoethane (EDB)	<0.0031	0.003125	0.025	µg/L	<3.1	3.1	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromo-3-Chloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,4-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dichlorodifluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 010 <b>SVP-18-10</b>										Date & Time Sampled: 09/20/22 @ 11:29			
Sample Matrix: Air													
Purge Volume Sampled: 3													
.....continued													
1,1-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Diisopropyl Ether (DiPE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethyl-t-Butyl Ether (EtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Hexachlorobutadiene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Hexanone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Isopropylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Isopropyltoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Methylene Chloride	<0.0125	0.0125	0.03	µg/L	<12.5	12.5	30	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Methyl-2-Pentanone (MIBK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Methyl-t-butyl Ether (MtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Naphthalene	<0.0053	0.00525	0.013	µg/L	<5.3	5.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Propylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Styrene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,1,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Tetrachloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Toluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 010 <b>SVP-18-10</b>										Date & Time Sampled: 09/20/22 @ 11:29			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
.....continued													
1,1,1-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichloropropane	<0.0050	0.005	0.025	µg/L	<5.0	5.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorofluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorotrifluoroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3,5-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Vinyl Chloride	<0.0006	0.0006	0.013	µg/L	<0.6	0.6	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
m,p-Xylenes	<0.0250	0.025	0.050	µg/L	<25.0	25.0	50	µg/m3	0.25	EPA 8260B	09/20/22	IG	
o-Xylene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Surrogates]													
Dibromofluoromethane	103		70-130	%REC						EPA 8260B	09/20/22	IG	
Toluene-D8	108		70-130	%REC						EPA 8260B	09/20/22	IG	
Bromofluorobenzene	110		70-130	%REC						EPA 8260B	09/20/22	IG	

Sample: 011 <b>SVP-18-10-DUP</b>										Date & Time Sampled: 09/20/22 @ 11:29			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
[VOCs by GCMS]													
Acetone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Amyl Methyl Ether (TAME)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Benzene	<0.0060	0.006	0.025	µg/L	<6.0	6.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromodichloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromoform	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

FARALLON CONSULTING, LLC  
BRENDEN TAYLOR  
27 MAUCHLY  
SUITE 213  
IRVINE, CA 92618

Project: 5355 E. Airport Dr., Ontario, CA 91761

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 011 <b>SVP-18-10-DUP</b>										Date & Time Sampled: 09/20/22 @ 11:29			
Sample Matrix: Air													
Purge Volume Sampled: 3													
.....continued													
t-Butanol (TBA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Butanone (MEK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
sec-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
tert-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Disulfide	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Tetrachloride	<0.0063	0.00625	0.013	µg/L	<6.3	6.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroform	<0.0078	0.00775	0.025	µg/L	<7.8	7.8	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromoethane (EDB)	<0.0031	0.003125	0.025	µg/L	<3.1	3.1	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromo-3-Chloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,4-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dichlorodifluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 011 <b>SVP-18-10-DUP</b>										Date & Time Sampled: 09/20/22 @ 11:29			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
.....continued													
cis-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Diisopropyl Ether (DiPE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethyl-t-Butyl Ether (EtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Hexachlorobutadiene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Hexanone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Isopropylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Isopropyltoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Methylene Chloride	<0.0125	0.0125	0.03	µg/L	<12.5	12.5	30	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Methyl-2-Pentanone (MIBK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Methyl-t-butyl Ether (MtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Naphthalene	<0.0053	0.00525	0.013	µg/L	<5.3	5.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Propylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Styrene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,1,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Tetrachloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Toluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,1-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichloropropane	<0.0050	0.005	0.025	µg/L	<5.0	5.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorofluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorotrifluoroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3,5-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Vinyl Chloride	<0.0006	0.0006	0.013	µg/L	<0.6	0.6	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
 27 MAUCHLY  
 SUITE 213  
 IRVINE, CA 92618

Date Reported 09/23/22  
 Date Received 09/20/22  
 Invoice No. 95963  
 Cust # F079  
 Permit Number  
 Customer P.O. 1071-080-002

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 011 <b>SVP-18-10-DUP</b>										Date & Time Sampled: 09/20/22 @ 11:29			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
.....continued													
m,p-Xylenes	<0.0250	0.025	0.050	µg/L	<25.0	25.0	50	µg/m3	0.25	EPA 8260B	09/20/22	IG	
o-Xylene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Surrogates]													
Dibromofluoromethane	105		70-130	%REC						EPA 8260B	09/20/22	IG	
Toluene-D8	109		70-130	%REC						EPA 8260B	09/20/22	IG	
Bromofluorobenzene	109		70-130	%REC						EPA 8260B	09/20/22	IG	
Sample: 012 <b>SVP-17-4</b>										Date & Time Sampled: 09/20/22 @ 12:20			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
[VOCs by GCMS]													
Acetone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Amyl Methyl Ether (TAME)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Benzene	<0.0060	0.006	0.025	µg/L	<6.0	6.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromodichloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromoform	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Butanol (TBA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Butanone (MEK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
sec-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
tert-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Disulfide	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Tetrachloride	<0.0063	0.00625	0.013	µg/L	<6.3	6.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Project: 5355 E. Airport Dr., Ontario, CA 91761

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 012 <b>SVP-17-4</b>										Date & Time Sampled: 09/20/22 @ 12:20			
Sample Matrix: Air													
Purge Volume Sampled: 3													
.....continued													
Chloroform	<0.0078	0.00775	0.025	µg/L	<7.8	7.8	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromoethane (EDB)	<0.0031	0.003125	0.025	µg/L	<3.1	3.1	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromo-3-Chloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,4-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dichlorodifluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Diisopropyl Ether (DiPE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethyl-t-Butyl Ether (EtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Hexachlorobutadiene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Hexanone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Isopropylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Isopropyltoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 012 <b>SVP-17-4</b>										Date & Time Sampled: 09/20/22 @ 12:20			
Sample Matrix: Air													
Purge Volume Sampled: 3													
.....continued													
Methylene Chloride	<0.0125	0.0125	0.03	µg/L	<12.5	12.5	30	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Methyl-2-Pentanone (MIBK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Methyl-t-butyl Ether (MtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Naphthalene	<0.0053	0.00525	0.013	µg/L	<5.3	5.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Propylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Styrene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,1,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Tetrachloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Toluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,1-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichloropropane	<0.0050	0.005	0.025	µg/L	<5.0	5.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorofluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorotrifluoroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3,5-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Vinyl Chloride	<0.0006	0.0006	0.013	µg/L	<0.6	0.6	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
m,p-Xylenes	<0.0250	0.025	0.050	µg/L	<25.0	25.0	50	µg/m3	0.25	EPA 8260B	09/20/22	IG	
o-Xylene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Surrogates]													
Dibromofluoromethane	107		70-130	%REC						EPA 8260B	09/20/22	IG	
Toluene-D8	109		70-130	%REC						EPA 8260B	09/20/22	IG	
Bromofluorobenzene	111		70-130	%REC						EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 013 <b>SVP-17-10</b>										Date & Time Sampled: 09/20/22 @ 12:52			
Sample Matrix: Air													
Purge Volume Sampled: 3													
[VOCs by GCMS]													
Acetone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Amyl Methyl Ether (TAME)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Benzene	<0.0060	0.006	0.025	µg/L	<6.0	6.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromodichloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromoform	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Butanol (TBA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Butanone (MEK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
sec-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
tert-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Disulfide	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Tetrachloride	<0.0063	0.00625	0.013	µg/L	<6.3	6.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroform	<0.0078	0.00775	0.025	µg/L	<7.8	7.8	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromoethane (EDB)	<0.0031	0.003125	0.025	µg/L	<3.1	3.1	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromo-3-Chloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,4-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dichlorodifluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 013 <b>SVP-17-10</b>										Date & Time Sampled: 09/20/22 @ 12:52			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
.....continued													
1,1-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Diisopropyl Ether (DiPE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethyl-t-Butyl Ether (EtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Hexachlorobutadiene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Hexanone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Isopropylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Isopropyltoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Methylene Chloride	<0.0125	0.0125	0.03	µg/L	<12.5	12.5	30	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Methyl-2-Pentanone (MIBK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Methyl-t-butyl Ether (MtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Naphthalene	<0.0053	0.00525	0.013	µg/L	<5.3	5.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Propylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Styrene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,1,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Tetrachloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Toluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 013 <b>SVP-17-10</b>										Date & Time Sampled: 09/20/22 @ 12:52			
Sample Matrix: Air													
Purge Volume Sampled: 3													
.....continued													
1,1,1-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichloropropane	<0.0050	0.005	0.025	µg/L	<5.0	5.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorofluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorotrifluoroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3,5-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Vinyl Chloride	<0.0006	0.0006	0.013	µg/L	<0.6	0.6	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
m,p-Xylenes	<0.0250	0.025	0.050	µg/L	<25.0	25.0	50	µg/m3	0.25	EPA 8260B	09/20/22	IG	
o-Xylene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Surrogates]													
Dibromofluoromethane	104		70-130	%REC						EPA 8260B	09/20/22	IG	
Toluene-D8	111		70-130	%REC						EPA 8260B	09/20/22	IG	
Bromofluorobenzene	108		70-130	%REC						EPA 8260B	09/20/22	IG	

Sample: 014 <b>SVP-19-4</b>										Date & Time Sampled: 09/20/22 @ 13:16			
Sample Matrix: Air													
Purge Volume Sampled: 3													
[VOCs by GCMS]													
Acetone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Amyl Methyl Ether (TAME)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Benzene	<0.0060	0.006	0.025	µg/L	<6.0	6.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromodichloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromoform	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

FARALLON CONSULTING, LLC  
BRENDEN TAYLOR  
27 MAUCHLY  
SUITE 213  
IRVINE, CA 92618

Project: 5355 E. Airport Dr., Ontario, CA 91761

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 014 SVP-19-4										Date & Time Sampled: 09/20/22 @ 13:16			
Sample Matrix: Air													
Purge Volume Sampled: 3													
.....continued													
t-Butanol (TBA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Butanone (MEK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
sec-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
tert-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Disulfide	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Tetrachloride	<0.0063	0.00625	0.013	µg/L	<6.3	6.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroform	<0.0078	0.00775	0.025	µg/L	<7.8	7.8	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromoethane (EDB)	<0.0031	0.003125	0.025	µg/L	<3.1	3.1	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromo-3-Chloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,4-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dichlorodifluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 014 <b>SVP-19-4</b>										Date & Time Sampled: 09/20/22 @ 13:16			
Sample Matrix: Air													
Purge Volume Sampled: 3													
.....continued													
cis-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
trans-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Diisopropyl Ether (DiPE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Ethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Ethyl-t-Butyl Ether (EtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Hexachlorobutadiene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
2-Hexanone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25		EPA 8260B	09/20/22	IG
Isopropylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
4-Isopropyltoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Methylene Chloride	<0.0125	0.0125	0.03	µg/L	<12.5	12.5	30	µg/m3	0.25		EPA 8260B	09/20/22	IG
4-Methyl-2-Pentanone (MIBK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25		EPA 8260B	09/20/22	IG
Methyl-t-butyl Ether (MtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Naphthalene	<0.0053	0.00525	0.013	µg/L	<5.3	5.3	13	µg/m3	0.25		EPA 8260B	09/20/22	IG
n-Propylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Styrene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
1,1,1,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
1,1,2,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Tetrachloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Toluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
1,2,3-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
1,2,4-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
1,1,1-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
1,1,2-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Trichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
1,2,3-Trichloropropane	<0.0050	0.005	0.025	µg/L	<5.0	5.0	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Trichlorofluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Trichlorotrifluoroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
1,2,4-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
1,3,5-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25		EPA 8260B	09/20/22	IG
Vinyl Chloride	<0.0006	0.0006	0.013	µg/L	<0.6	0.6	13	µg/m3	0.25		EPA 8260B	09/20/22	IG

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**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 014 <b>SVP-19-4</b>										Date & Time Sampled: 09/20/22 @ 13:16			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
.....continued													
m,p-Xylenes	<0.0250	0.025	0.050	µg/L	<25.0	25.0	50	µg/m3	0.25	EPA 8260B	09/20/22	IG	
o-Xylene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Surrogates]													
Dibromofluoromethane	104		70-130	%REC						EPA 8260B	09/20/22	IG	
Toluene-D8	109		70-130	%REC						EPA 8260B	09/20/22	IG	
Bromofluorobenzene	110		70-130	%REC						EPA 8260B	09/20/22	IG	
Sample: 015 <b>SVP-19-10</b>										Date & Time Sampled: 09/20/22 @ 13:40			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
[VOCs by GCMS]													
Acetone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Amyl Methyl Ether (TAME)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Benzene	<0.0060	0.006	0.025	µg/L	<6.0	6.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromodichloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromoform	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Butanol (TBA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Butanone (MEK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
sec-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
tert-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Disulfide	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Tetrachloride	<0.0063	0.00625	0.013	µg/L	<6.3	6.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

FARALLON CONSULTING, LLC  
BRENDEN TAYLOR  
27 MAUCHLY  
SUITE 213  
IRVINE, CA 92618

Project: 5355 E. Airport Dr., Ontario, CA 91761

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 015 <b>SVP-19-10</b>										Date & Time Sampled: 09/20/22 @ 13:40			
Sample Matrix: Air													
Purge Volume Sampled: 3													
.....continued													
Chloroform	<0.0078	0.00775	0.025	µg/L	<7.8	7.8	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromoethane (EDB)	<0.0031	0.003125	0.025	µg/L	<3.1	3.1	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromo-3-Chloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,4-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dichlorodifluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Diisopropyl Ether (DiPE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethyl-t-Butyl Ether (EtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Hexachlorobutadiene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Hexanone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Isopropylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Isopropyltoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 015 <b>SVP-19-10</b>										Date & Time Sampled: 09/20/22 @ 13:40			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
.....continued													
Methylene Chloride	<0.0125	0.0125	0.03	µg/L	<12.5	12.5	30	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Methyl-2-Pentanone (MIBK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Methyl-t-butyl Ether (MtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Naphthalene	<0.0053	0.00525	0.013	µg/L	<5.3	5.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Propylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Styrene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,1,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Tetrachloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Toluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,1-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichloropropane	<0.0050	0.005	0.025	µg/L	<5.0	5.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorofluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorotrifluoroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3,5-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Vinyl Chloride	<0.0006	0.0006	0.013	µg/L	<0.6	0.6	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
m,p-Xylenes	<0.0250	0.025	0.050	µg/L	<25.0	25.0	50	µg/m3	0.25	EPA 8260B	09/20/22	IG	
o-Xylene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Surrogates]													
Dibromofluoromethane	109		70-130	%REC						EPA 8260B	09/20/22	IG	
Toluene-D8	109		70-130	%REC						EPA 8260B	09/20/22	IG	
Bromofluorobenzene	108		70-130	%REC						EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 016 <b>SVP-12-4</b>										Date & Time Sampled: 09/20/22 @ 9:22			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
[VOCs by GCMS]													
Acetone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Amyl Methyl Ether (TAME)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Benzene	<0.0060	0.006	0.025	µg/L	<6.0	6.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromodichloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromoform	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Butanol (TBA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Butanone (MEK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
sec-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
tert-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Disulfide	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Tetrachloride	<0.0063	0.00625	0.013	µg/L	<6.3	6.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroform	<0.0078	0.00775	0.025	µg/L	<7.8	7.8	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromoethane (EDB)	<0.0031	0.003125	0.025	µg/L	<3.1	3.1	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromo-3-Chloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,4-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dichlorodifluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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2209-00150

FARALLON CONSULTING, LLC  
BRENDEN TAYLOR  
27 MAUCHLY  
SUITE 213  
IRVINE, CA 92618

Project: 5355 E. Airport Dr., Ontario, CA 91761

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 016 <b>SVP-12-4</b>										Date & Time Sampled: 09/20/22 @ 9:22			
Sample Matrix: Air													
Purge Volume Sampled: 3													
.....continued													
1,1-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Diisopropyl Ether (DiPE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethyl-t-Butyl Ether (EtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Hexachlorobutadiene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Hexanone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Isopropylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Isopropyltoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Methylene Chloride	<0.0125	0.0125	0.03	µg/L	<12.5	12.5	30	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Methyl-2-Pentanone (MIBK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Methyl-t-butyl Ether (MtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Naphthalene	<0.0053	0.00525	0.013	µg/L	<5.3	5.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Propylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Styrene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,1,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Tetrachloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Toluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 016 <b>SVP-12-4</b>										Date & Time Sampled: 09/20/22 @ 9:22			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
.....continued													
1,1,1-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichloropropane	<0.0050	0.005	0.025	µg/L	<5.0	5.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorofluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorotrifluoroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3,5-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Vinyl Chloride	<0.0006	0.0006	0.013	µg/L	<0.6	0.6	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
m,p-Xylenes	<0.0250	0.025	0.050	µg/L	<25.0	25.0	50	µg/m3	0.25	EPA 8260B	09/20/22	IG	
o-Xylene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Surrogates]													
Dibromofluoromethane	114		70-130	%REC						EPA 8260B	09/20/22	IG	
Toluene-D8	105		70-130	%REC						EPA 8260B	09/20/22	IG	
Bromofluorobenzene	90		70-130	%REC						EPA 8260B	09/20/22	IG	

Sample: 017 <b>SVP-12-10</b>										Date & Time Sampled: 09/20/22 @ 9:46			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
[VOCs by GCMS]													
Acetone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Amyl Methyl Ether (TAME)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Benzene	<0.0060	0.006	0.025	µg/L	<6.0	6.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromodichloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromoform	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 017 <b>SVP-12-10</b>										Date & Time Sampled: 09/20/22 @ 9:46			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
.....continued													
t-Butanol (TBA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Butanone (MEK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
sec-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
tert-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Disulfide	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Tetrachloride	<0.0063	0.00625	0.013	µg/L	<6.3	6.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroform	<0.0078	0.00775	0.025	µg/L	<7.8	7.8	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromoethane (EDB)	<0.0031	0.003125	0.025	µg/L	<3.1	3.1	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromo-3-Chloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,4-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dichlorodifluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 017 <b>SVP-12-10</b>										Date & Time Sampled: 09/20/22 @ 9:46			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
.....continued													
cis-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Diisopropyl Ether (DiPE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethyl-t-Butyl Ether (EtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Hexachlorobutadiene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Hexanone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Isopropylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Isopropyltoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Methylene Chloride	<0.0125	0.0125	0.03	µg/L	<12.5	12.5	30	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Methyl-2-Pentanone (MIBK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Methyl-t-butyl Ether (MtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Naphthalene	<0.0053	0.00525	0.013	µg/L	<5.3	5.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Propylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Styrene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,1,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Tetrachloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Toluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,1-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichloropropane	<0.0050	0.005	0.025	µg/L	<5.0	5.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorofluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorotrifluoroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3,5-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Vinyl Chloride	<0.0006	0.0006	0.013	µg/L	<0.6	0.6	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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**Project: 5355 E. Airport Dr., Ontario, CA 91761**

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Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 017 <b>SVP-12-10</b>										Date & Time Sampled: 09/20/22 @ 9:46			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
.....continued													
m,p-Xylenes	<0.0250	0.025	0.050	µg/L	<25.0	25.0	50	µg/m3	0.25	EPA 8260B	09/20/22	IG	
o-Xylene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Surrogates]													
Dibromofluoromethane	110		70-130	%REC						EPA 8260B	09/20/22	IG	
Toluene-D8	104		70-130	%REC						EPA 8260B	09/20/22	IG	
Bromofluorobenzene	94		70-130	%REC						EPA 8260B	09/20/22	IG	
Sample: 018 <b>SVP-15-4</b>										Date & Time Sampled: 09/20/22 @ 10:10			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
[VOCs by GCMS]													
Acetone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Amyl Methyl Ether (TAME)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Benzene	<0.0060	0.006	0.025	µg/L	<6.0	6.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromodichloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromoform	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Butanol (TBA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Butanone (MEK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
sec-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
tert-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Disulfide	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Tetrachloride	<0.0063	0.00625	0.013	µg/L	<6.3	6.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

FARALLON CONSULTING, LLC  
BRENDEN TAYLOR  
27 MAUCHLY  
SUITE 213  
IRVINE, CA 92618

Project: 5355 E. Airport Dr., Ontario, CA 91761

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 018 <b>SVP-15-4</b>										Date & Time Sampled: 09/20/22 @ 10:10			
Sample Matrix: Air													
Purge Volume Sampled: 3													
.....continued													
Chloroform	<0.0078	0.00775	0.025	µg/L	<7.8	7.8	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromoethane (EDB)	<0.0031	0.003125	0.025	µg/L	<3.1	3.1	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromo-3-Chloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,4-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dichlorodifluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Diisopropyl Ether (DiPE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethyl-t-Butyl Ether (EtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Hexachlorobutadiene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Hexanone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Isopropylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Isopropyltoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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## CERTIFICATE OF ANALYSIS

2209-00150

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 018 <b>SVP-15-4</b>										Date & Time Sampled: 09/20/22 @ 10:10			
Sample Matrix: Air													
Purge Volume Sampled: 3													
.....continued													
Methylene Chloride	<0.0125	0.0125	0.03	µg/L	<12.5	12.5	30	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Methyl-2-Pentanone (MIBK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Methyl-t-butyl Ether (MtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Naphthalene	<0.0053	0.00525	0.013	µg/L	<5.3	5.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Propylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Styrene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,1,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Tetrachloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Toluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,1-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichloropropane	<0.0050	0.005	0.025	µg/L	<5.0	5.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorofluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorotrifluoroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3,5-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Vinyl Chloride	<0.0006	0.0006	0.013	µg/L	<0.6	0.6	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
m,p-Xylenes	<0.0250	0.025	0.050	µg/L	<25.0	25.0	50	µg/m3	0.25	EPA 8260B	09/20/22	IG	
o-Xylene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Surrogates]													
Dibromofluoromethane	108		70-130	%REC						EPA 8260B	09/20/22	IG	
Toluene-D8	103		70-130	%REC						EPA 8260B	09/20/22	IG	
Bromofluorobenzene	91		70-130	%REC						EPA 8260B	09/20/22	IG	

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**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 019 <b>SVP-15-10</b>										Date & Time Sampled: 09/20/22 @ 10:34			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
[VOCs by GCMS]													
Acetone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Amyl Methyl Ether (TAME)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Benzene	<0.0060	0.006	0.025	µg/L	<6.0	6.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromodichloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromoform	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Bromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
t-Butanol (TBA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Butanone (MEK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
sec-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
tert-Butylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Disulfide	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Carbon Tetrachloride	<0.0063	0.00625	0.013	µg/L	<6.3	6.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloroform	<0.0078	0.00775	0.025	µg/L	<7.8	7.8	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Chloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Chlorotoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromochloromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromoethane (EDB)	<0.0031	0.003125	0.025	µg/L	<3.1	3.1	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dibromo-3-Chloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dibromomethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,4-Dichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Dichlorodifluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

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**SUITE 213**  
**IRVINE, CA 92618**

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 019 <b>SVP-15-10</b>										Date & Time Sampled: 09/20/22 @ 10:34			
Sample Matrix: <b>Air</b>													
Purge Volume Sampled: <b>3</b>													
.....continued													
1,1-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,2-Dichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2,2-Dichloropropane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
cis-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
trans-1,3-Dichloropropene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Diisopropyl Ether (DiPE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Ethyl-t-Butyl Ether (EtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Hexachlorobutadiene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
2-Hexanone	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Isopropylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Isopropyltoluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Methylene Chloride	<0.0125	0.0125	0.03	µg/L	<12.5	12.5	30	µg/m3	0.25	EPA 8260B	09/20/22	IG	
4-Methyl-2-Pentanone (MIBK)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Methyl-t-butyl Ether (MtBE)	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Naphthalene	<0.0053	0.00525	0.013	µg/L	<5.3	5.3	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
n-Propylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Styrene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,1,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2,2-Tetrachloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Tetrachloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Toluene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trichlorobenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	

The data and information on this, and other accompanying documents, represent only the sample(s) analyzed and is rendered upon condition that it is not to be reproduced, wholly or in part, for advertising or other purposes without approval from the laboratory.





# A & R Laboratories, Inc.

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## CERTIFICATE OF ANALYSIS

2209-00150

FARALLON CONSULTING, LLC  
BRENDEN TAYLOR  
27 MAUCHLY  
SUITE 213  
IRVINE, CA 92618

Project: 5355 E. Airport Dr., Ontario, CA 91761

Date Reported 09/23/22  
Date Received 09/20/22  
Invoice No. 95963  
Cust # F079  
Permit Number  
Customer P.O. 1071-080-002

Analysis	Result	MDL	RL	Units	Result	MDL	RL	Units	Qual	DF	Method	Date	Tech
Sample: 019 <b>SVP-15-10</b>										Date & Time Sampled: 09/20/22 @ 10:34			
Sample Matrix: Air													
Purge Volume Sampled: 3													
.....continued													
1,1,1-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,1,2-Trichloroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichloroethene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,3-Trichloropropane	<0.0050	0.005	0.025	µg/L	<5.0	5.0	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorofluoromethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Trichlorotrifluoroethane	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,2,4-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
1,3,5-Trimethylbenzene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
Vinyl Chloride	<0.0006	0.0006	0.013	µg/L	<0.6	0.6	13	µg/m3	0.25	EPA 8260B	09/20/22	IG	
m,p-Xylenes	<0.0250	0.025	0.050	µg/L	<25.0	25.0	50	µg/m3	0.25	EPA 8260B	09/20/22	IG	
o-Xylene	<0.0125	0.0125	0.025	µg/L	<12.5	12.5	25	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Vapor Sampling Tracer]													
Isopropanol (IPA)	<0.1250	0.125	0.25	µg/L	<125.0	125.0	250	µg/m3	0.25	EPA 8260B	09/20/22	IG	
[VOC Surrogates]													
Dibromofluoromethane	104		70-130	%REC						EPA 8260B	09/20/22	IG	
Toluene-D8	103		70-130	%REC						EPA 8260B	09/20/22	IG	
Bromofluorobenzene	88		70-130	%REC						EPA 8260B	09/20/22	IG	

Respectfully Submitted:

Ken Zheng - President

### QUALIFIERS

B = Detected in the associated Method Blank at a concentration above the routine RL  
B1= BOD blank is over specifications . The reported result may be biased high.  
D = Surrogate recoveries are not calculated due to sample dilution  
E = Estimated value  
H = Analyte was prepared and/or analyzed outside of the analytical method holding time  
I = Matrix Interference  
J = Analyte concentration detected between RL and MDL

### ABBREVIATIONS

DF = Dilution Factor  
RL = Reporting Limit  
MDL = Method Detection Limit  
Qual = Qualifier  
Tech = Technician



## A & R Laboratories, Inc.

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## QUALITY CONTROL DATA REPORT

**FARALLON CONSULTING, LLC**  
**BRENDEN TAYLOR**  
**27 MAUCHLY**  
**SUITE 213**  
**IRVINE, CA 92618**

**2209-00150**

**Date Reported**      09/23/2022  
**Date Received**     09/20/2022  
**Date Sampled**      09/20/2022  
**Invoice No.**         95963  
**Customer #**         F079  
**Customer P.O.**      1071-080-002

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

Method #	EPA 8260B																															
QC Reference #	105072	Date Analyzed:	9/20/2022	Technician:	IG																											
Samples	001	002	003	004	005	006	007	008	009	010	011	012	013	014	015	016	017	018	019													
Results	LCS %REC				LCS %DUP				LCS %RPD				BLKSRR% REC				Control Ranges															
													LCS %REC				LCS %RPD				BLKSRR%REC											
1,1-Dichloroethene	81				71				13.2												70 - 130				0 - 25							
Benzene	106				87				19.7												70 - 130				0 - 25							
Bromofluorobenzene												111																50 - 150				
Chlorobenzene	118				100				16.5												70 - 130				0 - 25							
Dibromofluoromethan												103																50 - 150				
Toluene	120				97				21.2												70 - 130				0 - 25							
Toluene-D8												105																50 - 150				
Trichloroethene	106				88				18.6												70 - 130				0 - 25							



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## QUALITY CONTROL DATA REPORT

2209-00150

FARALLON CONSULTING, LLC

BRENDEN TAYLOR

Date Reported

09/23/2022

Date Received

09/20/2022

Date Sampled

09/20/2022

Project: 5355 E. Airport Dr., Ontario, CA 91761

### Method blank results

Ref	Test Name	Result	Qualif	Units	MDL	Ref	Test Name	Result	Qualif	Units	MDL
105072	Acetone	<0.1250		µg/L	0.1250		Isopropylbenzene	<0.0125		µg/L	0.0125
	t-Amyl Methyl Ether (TAME)	<0.0125		µg/L	0.0125		4-Isopropyltoluene	<0.0125		µg/L	0.0125
	Benzene	<0.0060		µg/L	0.0060		Methylene Chloride	<0.0125		µg/L	0.0125
	Bromobenzene	<0.0125		µg/L	0.0125		4-Methyl-2-Pentanone (MIBK)	<0.1250		µg/L	0.1250
	Bromochloromethane	<0.0125		µg/L	0.0125		Methyl-t-butyl Ether (MtBE)	<0.0125		µg/L	0.0125
	Bromodichloromethane	<0.0125		µg/L	0.0125		Naphthalene	<0.0053		µg/L	0.0053
	Bromoform	<0.0125		µg/L	0.0125		n-Propylbenzene	<0.0125		µg/L	0.0125
	Bromomethane	<0.0125		µg/L	0.0125		Styrene	<0.0125		µg/L	0.0125
	t-Butanol (TBA)	<0.1250		µg/L	0.1250		1,1,1,2-Tetrachloroethane	<0.0125		µg/L	0.0125
	2-Butanone (MEK)	<0.1250		µg/L	0.1250		1,1,2,2-Tetrachloroethane	<0.0125		µg/L	0.0125
	n-Butylbenzene	<0.0125		µg/L	0.0125		Tetrachloroethene	<0.0125		µg/L	0.0125
	sec-Butylbenzene	<0.0125		µg/L	0.0125		Toluene	<0.0125		µg/L	0.0125
	tert-Butylbenzene	<0.0125		µg/L	0.0125		1,2,3-Trichlorobenzene	<0.0125		µg/L	0.0125
	Carbon Disulfide	<0.1250		µg/L	0.1250		1,2,4-Trichlorobenzene	<0.0125		µg/L	0.0125
	Carbon Tetrachloride	<0.0063		µg/L	0.0063		1,1,1-Trichloroethane	<0.0125		µg/L	0.0125
	Chlorobenzene	<0.0125		µg/L	0.0125		1,1,2-Trichloroethane	<0.0125		µg/L	0.0125
	Chloroethane	<0.0125		µg/L	0.0125		Trichloroethene	<0.0125		µg/L	0.0125
	Chloroform	<0.0078		µg/L	0.0078		1,2,3-Trichloropropane	<0.0050		µg/L	0.0050
	Chloromethane	<0.0125		µg/L	0.0125		Trichlorofluoromethane	<0.0125		µg/L	0.0125
	2-Chlorotoluene	<0.0125		µg/L	0.0125		Trichlorotrifluoroethane	<0.0125		µg/L	0.0125
	4-Chlorotoluene	<0.0125		µg/L	0.0125		1,2,4-Trimethylbenzene	<0.0125		µg/L	0.0125
	Dibromochloromethane	<0.0125		µg/L	0.0125		1,3,5-Trimethylbenzene	<0.0125		µg/L	0.0125
	1,2-Dibromoethane (EDB)	<0.0031		µg/L	0.0031		Vinyl Chloride	<0.0006		µg/L	0.0006
	1,2-Dibromo-3-Chloropropane	<0.0125		µg/L	0.0125		m,p-Xylenes	<0.0250		µg/L	0.0250
	Dibromomethane	<0.0125		µg/L	0.0125		o-Xylene	<0.0125		µg/L	0.0125
	1,2-Dichlorobenzene	<0.0125		µg/L	0.0125		Isopropanol (IPA)	<0.1250		µg/L	0.1250
	1,3-Dichlorobenzene	<0.0125		µg/L	0.0125						
	1,4-Dichlorobenzene	<0.0125		µg/L	0.0125						
	Dichlorodifluoromethane	<0.0125		µg/L	0.0125						
	1,1-Dichloroethane	<0.0125		µg/L	0.0125						
	1,2-Dichloroethane	<0.0125		µg/L	0.0125						
	1,1-Dichloroethene	<0.0125		µg/L	0.0125						
	cis-1,2-Dichloroethene	<0.0125		µg/L	0.0125						
	trans-1,2-Dichloroethene	<0.0125		µg/L	0.0125						
	1,2-Dichloropropane	<0.0125		µg/L	0.0125						
	1,3-Dichloropropane	<0.0125		µg/L	0.0125						
	2,2-Dichloropropane	<0.0125		µg/L	0.0125						
	1,1-Dichloropropene	<0.0125		µg/L	0.0125						
	cis-1,3-Dichloropropene	<0.0125		µg/L	0.0125						
	trans-1,3-Dichloropropene	<0.0125		µg/L	0.0125						
	Diisopropyl Ether (DIPE)	<0.0125		µg/L	0.0125						
	Ethylbenzene	<0.0125		µg/L	0.0125						
	Ethyl-t-Butyl Ether (EtBE)	<0.0125		µg/L	0.0125						
	Hexachlorobutadiene	<0.0125		µg/L	0.0125						
	2-Hexanone	<0.1250		µg/L	0.1250						



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## QUALITY CONTROL DATA REPORT

FARALLON CONSULTING, LLC  
BRENDEN TAYLOR

**2209-00150**

<b>Date Reported</b>	<b>09/23/2022</b>
<b>Date Received</b>	<b>09/20/2022</b>
<b>Date Sampled</b>	<b>09/20/2022</b>

**Project: 5355 E. Airport Dr., Ontario, CA 91761**

*Respectfully Submitted:*

A handwritten signature in black ink that reads 'Ken Zheng'.

Ken Zheng - President

**A & R Laboratories**

1650 S. Grove Ave., Ste C, Ontario, CA 91761  
 Tel: 951-779-0310 / 909-781-6335 Fax: 951-779-0344  
 E-mail: office@arlaboratories.com

**CHAIN OF CUSTODY**

A &amp; R Work Order #:

2209-150

Page 1 of 2

1071-080-002

Client Name Farallon CONSULTING, LLC				<input type="checkbox"/> Chilled		<b>Analyses Requested</b>										Turn Around Time Requested								
E-mail BTAYLOR@FARALLONCONSULTING.COM				<input checked="" type="checkbox"/> Intact												Rush 8 12 24 48 Hours								
Address 27 MAULCHLY, STE. 213, IRVINE, CA 92618				<input type="checkbox"/> Seal		Normal mobile																		
Report Attention ORENDEN		Phone # 213-215-0030		Sampled By 16		Fax: #																		
Project No./ Name		Project Site 5355 E Airport Dr, Ontario, CA 91761				EPA8260B (VOCs & Oxygenates)		EPA8260B(BTEX & Oxygenates)		8260B / 8015 (Gasoline)		8015 (Diesel)		EPA8081A (Organochlorine Pesticides)		EPA 8082 (PCBs)		EPA 8015M (Carbon Chain C4-C40)		EPA 6010B/7000 (CAM 17 Metals)		Micro: Plate Cnt., Coliform, E-Coli		
Lab # (Lab use)	Client Sample ID	Sample Collection Date   Time		Matrix Type	Sample Preserve	No., type* & size of container																	Remarks	
1	SVP-13-4	9/20/22	7:49	AIR		250 mL G	X																3X purge volume	
2	SVP-13-10		8:13																					
3	SVP-11-4		8:37																					
4	SVP-11-10		9:01																					
5	SVP-14-4		9:25																					
6	SVP-14-10		9:50																					
7	SVP-16-4		10:13																					
8	SVP-16-10		10:37																					
9	SVP-18-4		11:05																					
10	SVP-18-10		11:29																					
11	SVP-18-10-DUP		11:29																					
12	SVP-17-4		12:20																					
13	SVP-17-10		12:52																					
14	SVP-19-4		13:16																					
15	SVP-19-10		13:40																					
Relinquished By <i>[Signature]</i>		Company FARALLON		Date 9/20/22	Time 1350	Received By <i>[Signature]</i>		Company A&R		Date 9/20/22	Time 1350	Note: Samples are discarded 30 days after results are reported unless other arrangements are made.												
Relinquished By		Company		Date	Time	Received By		Company		Date	Time													

## Matrix Code:

DW=Drinking Water  
 GW=Ground Water  
 WW=Waste Water  
 SD=Solid Waste

SL=Sludge  
 SS=Soil/Sediment  
 AR=Air  
 PP=Pure Product

## Preservative Code

IC=Ice  
 HC=HCl  
 HN=HNO<sub>3</sub>

SH=NaOH  
 ST=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>  
 HS=H<sub>2</sub>SO<sub>4</sub>

## \* Sample Container Types:

T=Tedlar Air Bag  
 G=Glass Container  
 ST= Steel Tube

B= Brass Tube  
 P=Plastic Bottle  
 V=VOA Vial  
 E= EnCore



**A & R Laboratories**  
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 Tel: 951-779-0310 / 909-781-6335 Fax: 951-779-0344  
 E-mail: office@arlaboratories.com

# CHAIN OF CUSTODY

A & R Work Order #: **2209-150**

1071-080-002

Client Name <b>Farallon CONSULTING, LLC</b>					<input type="checkbox"/> Chilled	<b>Analyses Requested</b>										Turn Around Time Requested
E-mail <b>BTAYLOR@FARALLONCONSULTING.COM</b>					<input checked="" type="checkbox"/> Intact											
Address <b>27 MAUCHLY, STE. 213, IRVINE, CA 92618</b>					<input type="checkbox"/> Seal	EPA 6010B/7000 (CAM 17 Metals)	EPA 6010B/7000 (CAM 17 Metals)	EPA 6010B/7000 (CAM 17 Metals)	EPA 6010B/7000 (CAM 17 Metals)	EPA 6010B/7000 (CAM 17 Metals)	EPA 6010B/7000 (CAM 17 Metals)	EPA 6010B/7000 (CAM 17 Metals)	EPA 6010B/7000 (CAM 17 Metals)	EPA 6010B/7000 (CAM 17 Metals)		
Report Attention <b>BRENDEN</b>		Phone # <b>213-215-0030</b>		Sampled By <b>16</b>	Project No./ Name										Project Site	Remarks
Project No./ Name		Project Site		Remarks												
Lab # <small>(Lab use)</small>	Client Sample ID	Sample Collection			Matrix Type	Sample Preserve	No., type* & size of container	Remarks								
		Date	Time													
16	SVP-12-4	9/20/22	9:22	AIR		250 mL V	3X purge volume									
17	SVP-12-10	↓	9:46	↓		↓										
18	SVP-15-4	↓	10:10	↓		↓										
19	SVP-15-10	↓	10:34	↓		↓										
20		↓		↓		↓										

Note: Samples are discarded 30 days after results are reported unless other arrangements are made.

Matrix Code:	DW=Drinking Water GW=Ground Water WW=Waste Water SD=Solid Waste	SL=Sludge SS=Soil/Sediment AR=Air PP=Pure Product	Preservative Code	IC=Ice HC=HCl HN=HNO <sub>3</sub>	SH=NaOH ST=Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> HS=H <sub>2</sub> SO <sub>4</sub>	* Sample Container Types:	B= Brass Tube G=Glass Container ST= Steel Tube	E= EnCore P=Plastic Bottle V=VOA Vial
--------------	--	--	-------------------	---	--	---------------------------	--	---

**APPENDIX C  
WASTE MANIFESTS**

ADDITIONAL SUBSURFACE INVESTIGATION REPORT  
5355 East Airport Drive  
Ontario, California

Farallon PN: 1071-080 (Task 2)



# Manifest

## SOIL SAFE OF CA - TPST Non-Hazardous Soils

↓ Manifest # ↓

Date of Shipment: / / Responsible for Payment: Transport Truck #: Facility #: A07 Approval Number: A5-4211 Load #: 0 | 0 | 2

Generator's Name and Billing Address: **PROLOGIS INC  
PIER 1 BAY 1  
SAN FRANCISCO, CA 94111**  
Generator's Phone #: **415-733-9411**  
Person to Contact:  
FAX#: Customer Account Number

Consultant's Name and Billing Address:  
Consultant's Phone #:  
Person to Contact:  
FAX#: Customer Account Number

Generation Site (Transport from): (name & address)  
**5355 EAST AIRPORT DRIVE  
5355 EAST AIRPORT DRIVE  
ONTARIO, CA 91761**  
Site Phone #:  
Person to Contact:  
FAX#:

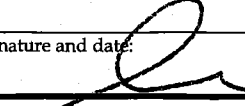
Designated Facility (Transport to): (name & address)  
**SOIL SAFE  
12328 Hibiscus Avenue  
Adelanto, CA 92301**  
Facility Phone #: **(800) 862-8001**  
Person to Contact: **JOE PROVANSAL**  
FAX#: **(760) 246-8004**

Transporter Name and Mailing Address: **BELSHIRE  
25971 TOWNE CENTRE DRIVE  
FOOTHILL RANCH, CA 92610  
BESI: 348606**  
Transporter's Phone #: **949-480-5200**  
Person to Contact: **LARRY MOOTHART**  
FAX#: **949-480-5210**  
Customer Account Number: **CAR000183913  
1629169**

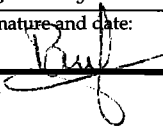
Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand <input type="checkbox"/> Organic <input type="checkbox"/> Clay <input type="checkbox"/> Other <input type="checkbox"/>	0 - 10% <input type="checkbox"/> 10 - 20% <input type="checkbox"/> 20% - over <input type="checkbox"/>	Gas <input type="checkbox"/> Diesel <input type="checkbox"/> Other <input type="checkbox"/>	1 DM	SOIL	290		
Sand <input type="checkbox"/> Organic <input type="checkbox"/> Clay <input type="checkbox"/> Other <input type="checkbox"/>	0 - 10% <input type="checkbox"/> 10 - 20% <input type="checkbox"/> 20% - over <input type="checkbox"/>	Gas <input type="checkbox"/> Diesel <input type="checkbox"/> Other <input type="checkbox"/>			76700	38100	600

List any exception to items listed above: Scale Ticket # **172871** **.30**

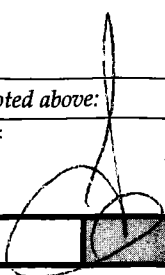
Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: Generator  Consultant  Signature and date:  Month | Day | Year: 10 | 14 | 22  
**Larry Moothart of BESI on behalf of generator**

Transporter's certification: I/We acknowledge receipt of the soil referenced above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that the soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name: Signature and date:  Month | Day | Year: 10 | 14 | 27  
**PAUL VENEGAS**

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:  
Print or Type Name: Signature and date:  **11700**  
**Joe Provansal / Barry Meek / Bill Bishop**

Please print or type.

**Soil Safe of California, Inc.**

12328 Hibiscus Ave. Adelanto, CA 92301

**ADE172871**

**WEIGHMASTER CERTIFICATE**

THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professional Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

**Manifest Number:** A5-4211 Load #: 2

11/7/2022

**Generator Site Information:**

5355 East Airport Drive

5355 East Airport Drive

Ontario, Ca 91791

**Weighmaster Weighed at:**

SOIL SAFE OF CALIFORNIA, INC..

12328 HIBISCUS AVE

ADELANTO, CA 92301

			<u>Lbs</u>	<u>Tons</u>
Joe Provansal	Time In: 1:50:29 PM	<b>Gross Weight:</b>	38700	19.35 Manual Wt
Joe Provansal	Time out: 1:50:30 PM	<b>Tare Weight:</b>	38100	19.05 Manual Wt
		<b>Net Weight:</b>	600	0.3

**Truck Number:** 875

**Trailer Number:** 200

**Commodity:** Non Haz - Solids

**Driver on Gross and Tare Transporter:** Besi - Ed

## SOIL GAS INVESTIGATION REPORT

5355 East Airport Drive  
Ontario, California

Submitted by:  
Farallon Consulting, L.L.C.  
27 Mauchly, Suite 213  
Irvine, California 92618

Farallon PN: 1071-080 (Task 2)

For:  
Prologis, L.P.  
Pier 1, Bay 1  
San Francisco, California 94111

February 14, 2023

Prepared by:



Peter Sims, P.G.  
Associate Geologist



Jared Eudell  
Associate Scientist

Reviewed by:



Kathy Lehnus, P.G.  
Senior Geologist





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## 1.0 INTRODUCTION

Farallon Consulting, L.L.C. (Farallon) has prepared this Soil Gas Investigation Report (Soil Gas Report) for Prologis, L.P. (Prologis) to present a summary of results from the soil gas investigation conducted in December 2022 at the property at 5355 East Airport Drive in Ontario, California (herein referred to as the Site) (Figure 1). The soil gas investigation was conducted to provide additional assessment of the potential for vapor intrusion related to tetrachloroethene (PCE), which was detected inconsistently in soil gas during subsurface investigations conducted by Partner Engineering and Science, Inc (Partner) in July 2016 and Farallon in February and September 2022. The scope of work for the historical investigations was based on the recognized environmental conditions and subsurface investigation findings identified in the Partner Phase II Subsurface Investigation Report (2016 SI Report),<sup>1</sup> the Farallon Phase I/Phase II Environmental Site Assessment Report (Phase I/II Report),<sup>2</sup> and the Farallon Additional Subsurface Investigation Report.<sup>3</sup> The potential for constituents of concern (COCs) to be present in Site subsurface media was identified as recognized environmental conditions due to petroleum underground storage tanks (USTs) formerly present in three areas, former and active septic systems, and a vehicle maintenance garage ("Building B"). These features are depicted on Figure 2.

According to the 2016 SI Report, the Phase I/II Report, and the Additional Subsurface Investigation Report, tetrachloroethene (PCE) was detected at concentrations exceeding calculated industrial screening levels using a 0.03 attention factor in soil gas in several areas during the July 2016 and March 2022 sampling events, but not during the September 2022 sampling event. Additional investigation was recommended to address the potential for vapor intrusion conditions at the warehouse proposed for construction at the Site. This soil gas investigation was conducted to provide that additional investigation. Additionally, Prologis requested that methane be screened during the soil gas investigation. The scope of work for the soil gas investigation was presented in Work Change Order 1071-080-002-WCO 004<sup>4</sup> and the general locations, depths, rationale for the borings, and analytes are shown in Table 1. Sample locations at the Site are shown on Figure 2.

This Soil Gas Report has been organized into the following sections:

- **Section 2, Site Background**, provides a description of the Site, and summarizes pertinent background information regarding its history and previous investigations conducted at the Site.

---

<sup>1</sup> *Phase II Subsurface Investigation Report, 5355 East Airport Drive, Ontario, California* dated August 16, 2016, prepared for Prologis, Inc. by Partner (2016).

<sup>2</sup> *Phase I/Phase II Environmental Site Assessment Report, 5355 East Airport Drive, Ontario, California* dated March 31, 2022 prepared by Farallon (2022a) for Prologis.

<sup>3</sup> *Additional Subsurface Investigation Report, 5355 East Airport Drive, Ontario, California* dated December 13, 2022 prepared for Prologis, Inc. by Farallon (2022c).

<sup>4</sup> Work Change Order 1071-080-002-WCO 004, Master Services Agreement, Farallon Consulting, L.L.C. and Prologis, Inc. dated December 5, 2022 between Gavin Polite Fisco of Prologis and Scott Allin of Farallon (2022b).



- **Section 3, Physical Setting**, describes the topography, geology, and hydrogeology of the Site.
- **Section 4, Soil Gas Investigation**, provides a description of the scope of work conducted as part of the additional soil gas investigation, and a summary of soil gas analytical results.
- **Section 5, Conclusions and Recommendations**, presents Farallon's conclusions from the additional subsurface investigation, and recommendations based on the results.
- **Section 6, References**, provides a list of the documents cited in this Soil Gas Report.
- **Section 7, Limitations**, presents Farallon's standard limitations applicable to this Soil Gas Report.



## 2.0 SITE BACKGROUND

This section provides a description of the Site and summarizes pertinent background information regarding its history and previous investigations conducted at the Site.

### 2.1 SITE DESCRIPTION

The Site consists of two parcels totaling 14.2 acres of land: San Bernardino County Assessor Parcel Nos. 0238-052-20 (Eastern Parcel), and 0238-052-29 (Western Parcel). The Eastern Parcel is occupied by Verhoeven, a grain-processing company, and is developed with five buildings, grain storage silos, and a grain mill area. An office and warehouse building, referred to as “Building A,” is located on the southern portion of the Site. The warehouse portion on the northeastern side of Building A contains a service shop used to repair machinery related to the grain mill. A maintenance shop, referred to as “Building B,” is present on the eastern portion of the Site, and is used for light tractor and forklift services. Additional structures on the Eastern Parcel consist of a warehouse referred to as “Building C” on the north-central portion, used for assorted storage, and two grain storage structures on the southeastern and southwestern portions of the parcel, referred to as Buildings D and E, respectively.

The Western Parcel is occupied by The Scoular Company, a corn storage and distribution facility. The Western Parcel contains exterior grain storage areas, and an office trailer that contains a small hazardous substances storage area on secondary containment.

The Site is primarily asphalt-paved, with some gravel-paved areas on the western parcel. Access to the Site is gained from East Airport Drive, south of the Site.

A vehicle wash-down area with a sump is present on the northeastern portion of the Eastern Parcel. Three or four septic systems are associated with the Site: two or three on the Eastern Parcel, and one on the Western Parcel. The location of the septic system on the Western Parcel could not be determined from the records reviewed. A 499-gallon propane aboveground storage tank (AST), two 250-gallon diesel fuel ASTs, and a 220-gallon hydraulic oil AST are present on the Eastern Parcel. Two 12,000-gallon “fuel-storage” USTs formerly were located on the north-central portion of the Site near the grain mill area. A 12,000-gallon diesel fuel UST formerly was located southeast of Building C. The area west of Building B was identified as the former location of one or more additional USTs.

### 2.2 SITE HISTORY

The Site was used as agricultural or grazing land from at least the late 1930s to the early 1970s. By 1973, the Eastern Parcel was developed with small grain storage silos and other features associated with milling operations in the grain mill area. By 1975, grain appeared to be stockpiled in Buildings A through C, located on the southwestern portion of the Site. By 1985 grain storage structures Buildings D and E had been developed. By 2002, grain processing operations at the Site had expanded to the Western Parcel, which included the





development of three large grain storage silos. The Site has appeared in its current configuration since 2002.

Site occupants have consisted of Verhoeven from 1973 to the present; Chino Grain and Milling, Inc. in 1985; Coast Grain Company from 1990 to 2003; The Scoular Company between 2004 and the present; and JD Heistell and Company in 2009.

## 2.3 PREVIOUS INVESTIGATIONS

Partner's 2016 SI Report documented an investigation conducted at the Site. The scope of work consisted of a geophysical survey to identify former on-Site USTs or associated features and reported septic systems, and soil and soil gas sampling to assess for indications of a release from historical Site activities. The geophysical survey identified one large anomaly indicative of a backfilled UST excavation beneath the western canopy of Building B, which generally corresponds to the location of a former UST area. No large metallic features were identified, so Partner concluded that USTs formerly present in the area had been removed. One large anomaly resembling a septic system was identified north of Building A.

Partner advanced 26 borings with total depths ranging from 1 to 25 feet below ground surface (bgs) for collection of soil and/or soil gas samples. Soil samples were analyzed for total petroleum hydrocarbon carbon chain C6-C40 (TPH-cc) by U.S. Environmental Protection Agency (EPA) Method 8015C and for volatile organic compounds (VOCs) by EPA Method 8260B. Soil gas samples were analyzed for VOCs by either EPA Methods TO-14, TO-15, or 8260B. VOCs and TPH-cc were not detected in soil samples at concentrations exceeding laboratory reporting limits (Tables 2 and 3). VOCs, consisting of PCE, trichloroethene, toluene, ethylbenzene, and xylenes, were detected in soil gas samples at concentrations less than residential and industrial calculated soil gas screening levels in effect at the time the report was completed. Partner concluded that a discernable vapor intrusion condition did not appear to exist at the Site, and that the detections of VOCs in soil gas did not represent a threat to human health or the environment. Partner recommended no further investigation with respect to the on-Site grain-handling facility at the time of the report.

Although the reported concentrations of VOCs in soil gas were less than soil gas screening levels (SGSLs) in effect in 2016 at the time the Partner report was prepared, in April 2020, California Department of Toxic Substances Control (DTSC) Human and Ecological Risk Office (2022) Human Health Risk Assessment Note Number 3 (HHRA Note 3) was updated with the recommendation to use a more-conservative attenuation factor of 0.03 in screening level calculations. PCE concentrations ranging from 68 to 230 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) in soil gas samples collected by Partner in 2016 from sampling locations B5, B6, and SV-14 through SV-16 exceeded the calculated industrial SGSL of  $67 \mu\text{g}/\text{m}^3$  using the 0.03 attenuation factor. Additionally, the ethylbenzene concentration of  $280 \mu\text{g}/\text{m}^3$  in soil gas sample B4-SG, located west of Building B, exceeded the calculated industrial SGSL of  $163 \mu\text{g}/\text{m}^3$  using the 0.03 attenuation factor. These samples were collected west of and beneath Building B at a depth of 4 to 5 feet bgs. Soil gas results from Partner's 2016 SI Report and



calculated SGSLs using the 2020 HHRA Note 3 attenuation fraction of 0.03 are presented in Table 5.

As part of its Phase I/II due diligence investigation, Farallon conducted soil and soil gas sampling at the Site in March 2022, focusing on assessing former UST areas and septic systems, and the proposed new building footprint for the potential for vapor intrusion issues. At the time of the assessment, Farallon was informed that an approximately 259,000-square-foot warehouse would be constructed on the north-central portion of the Site (Figure 2). The scope of work for the Phase II Environmental Site Assessment portion of the investigation included advancement of 12 borings, installation of two subslab gas probes, and installation of 10 temporary soil gas probe locations with single- or multi-depth nested gas points for collection of soil and soil gas samples.

VOCs and TPH-cc were not detected at concentrations exceeding laboratory reporting limits (Tables 2 and 3) in soil samples. Metals were either not detected in soil samples at concentrations exceeding laboratory reporting limits, or at concentrations less than screening levels (Table 4). Soil gas data indicated that PCE was present at concentrations exceeding calculated industrial SGSLs using the 0.03 attenuation factor in soil gas samples collected west of and beneath Building B (samples SS-1, SS-2, SVP-7, and SVP-8), proximate to the location of the former 12,000-gallon diesel fuel UST (sample SVP-5), proximate to the location of the two former 12,000-gallon USTs (sample SVP-1), and proximate to the vehicle washdown area with sump (sample SVP-6) as presented in Table 5. These locations were mapped beneath the planned new building footprint. PCE also was detected at concentrations less than the calculated industrial SGSLs in soil gas in other soil gas samples collected at the Site. The extent of PCE in soil gas was not fully characterized.

In September 2022, to further assess soil gas beneath the planned building footprint, Farallon advanced nine borings, designated SVP-11 through SVP-19, at the Site within the planned new building footprint. Dual-nested soil gas probes were constructed in each boring to investigate the potential presence of VOCs in soil gas beneath the planned new building. PCE was not detected at concentrations exceeding the laboratory reporting limit of 25  $\mu\text{g}/\text{m}^3$  in the soil gas samples collected from the soil gas probes. Ethylbenzene and total xylenes were detected at concentrations less than calculated industrial SGSLs. Because some of the soil gas samples collected in September 2022 were proximate to areas that showed impacts in March 2022, but no impacts were detected in September 2022, Farallon worked with the original analytical laboratory to conduct a data quality review of both analytical data sets. No anomalies in the data sets were found to render the data from either event unusable. Farallon recommended that the areas of highest impacts previously encountered under the proposed building slab be resampled to aid in the determination of whether mitigation measures would be recommended for the proposed building.

PCE in soil gas results are shown on Figure 3.



## 3.0 PHYSICAL SETTING

The topography, geology, and hydrogeology of the Site are described in this section.

### 3.1 TOPOGRAPHY

Farallon reviewed the U.S. Geological Survey topographic map for Guasti, California dated 2018 provided by Environmental Data Resources, Inc. The map depicts the Site at an elevation of approximately 980 feet above mean sea level. Site topography slopes gently downward to the south. Regional topography generally is sloped downward to the south.

### 3.2 GEOLOGY AND HYDROGEOLOGY

The Site is situated in the San Bernadino Valley of the Peninsular Ranges Geomorphic Province in Southern California. The Peninsular Ranges Province is bounded by the San Gabriel and San Bernardino mountains to the north and the Colorado Desert to the east, extends into lower California beyond the Mexican border to the south, and is bound by the Pacific Ocean to the west. The San Bernardino Mountains are approximately 7 miles north of the Site.

According to the 2016 SI Report, soil beneath the Site generally consists of very fine-grained silty sand from the surface to a depth of approximately 20 feet bgs and transitions to very fine- to coarse-grained poorly graded sand between depths of 20 and 25 feet bgs. Groundwater was not encountered during Partner's investigation.

Soil encountered during Farallon's previous subsurface investigations was described as silty fine to medium sand to the total explored depth of 4 to 10 feet bgs, with an apparent coarse sand and gravel layer at a depth of 10 feet bgs (and as shallow as 5 feet bgs on the eastern portion of the Site at boring SB-2), and intermittent clayey sand to clay lenses approximately 1 foot thick at a depth of between 6 and 7 feet bgs (borings SVP-16 and SVP-19) and 10 to 11 feet bgs (borings SVP-12 and SVP-16). Groundwater was not encountered during drilling.

Soil observed during the December 2022 sampling round can be generally described as silty fine sand with trace medium sand with some sub-angular gravel to the exploration depth of 4.5 feet bgs. Boring logs are provided in Appendix A.

Site-specific groundwater direction and depth information was not available in the records reviewed. Based on information obtained from the previous reports and California State Water Resources Control Board (2022) GeoTracker database and topographic interpretation, groundwater beneath the Site is anticipated to be encountered at a depth of approximately 250 feet bgs, and is estimated to flow to the south.



## 4.0 SOIL GAS INVESTIGATION

This section presents the scope of work for the soil gas investigation conducted at the Site in December 2022 and summarizes the results from this and prior soil gas sampling events.

### 4.1 SCOPE OF WORK

Before field work was initiated, the Site-specific Health and Safety Plan (HASP) was updated, and underground utilities were cleared. Field work consisted of advancing borings and collecting soil gas samples at the Site to provide a better understanding of soil gas impacts detected during previous subsurface investigations. The following sections detail this scope of work.

#### 4.1.1 Health and Safety Plan Preparation

A Site-specific HASP was required under Section 3202 of Title 8 of the California Code of Regulations (8 CCR 3202) for all field activities due to the potential for exposure to hazardous substances. Prior to commencement of field activities, Farallon updated the HASP compliant with the requirements of the Occupational Safety and Health Act of 1970 and 8 CCR 3203. Personal protection equipment precautions related to COVID-19 were implemented for Farallon personnel during field activities in accordance with Farallon health and safety policy.

#### 4.1.2 Underground Utility Clearance

Prior to commencement of drilling activities, Farallon marked the proposed boring locations at the Site and contacted Dig Alert for public utility notice. Farallon also engaged a private utility location service to pre-screen the proposed boring locations for utilities that may be encountered during advancement using hand tools.

#### 4.1.3 Boring Advancement

Seven borings, designated SVP-20 through SVP-26, were advanced at the Site on December 9, 2022 to investigate the potential presence of VOCs in soil gas beneath the planned new building footprint. The boring locations are shown on Figure 2 and were generally evenly distributed across the planned new building footprint, with select borings placed in previously identified impacted areas. Borings SVP-20, SVP-21, SVP-22, SVP-24, SVP-25, and SVP-26 were advanced proximate to previous locations SVP-2, SVP-1, SVP-4, SVP-5, SVP-8, and SVP-7, respectively, to evaluate previous detections of PCE in soil gas. Borings were advanced in exterior locations paved with asphalt or concrete which required coring to access the subsurface. The borings were advanced using a hand-auger to a depth of 4.5 feet bgs to install soil gas probes at 4 feet bgs as described in Section 4.1.4, Soil Gas Probe Installation and Sampling. The general locations, depths, rationale for the borings, and analytes are shown in Table 1.



The displaced soil was visually inspected and screened by a Farallon geologist using a photoionization detector and was described and logged using the United Soil Classification System (Modified). Physical evidence of soil impacts, including staining and odors, was not observed; photoionization detector readings ranged from 0.1 to 1.0 parts per million. Boring logs with soil descriptions are provided in Appendix A.

#### 4.1.4 Soil Gas Probe Installation and Sampling

Following completion of boring advancement, Farallon converted the borings to temporary soil gas probes. Borings SVP-20 through SVP-26 were constructed with soil gas probes at a depth of 4 feet bgs.

Soil gas probe installation was performed in accordance with the *Advisory: Active Soil Gas Investigations* dated July 2015 prepared by the California Environmental Protection Agency et al. (2015) (Soil Gas Advisory). The probes consisted of an Airstone microporous gas implant or equivalent connected to 0.25-inch-outside-diameter Nylaflo tubing, finished at the surface with temporary plugs. The annulus around the gas implant was backfilled with approximately 1 foot of screen-washed No. 3 sand, followed by 1 foot of dry #8 granular bentonite, and completed with hydrated #8 granular bentonite to create a seal from the top of the dry granular bentonite to near surface. Soil gas probe construction is illustrated in the boring logs provided in Appendix A; their locations are shown on Figure 2.

The temporary soil gas probes were allowed to equilibrate for 7 days prior to sample collection on December 16, 2022. Soil gas sampling, including observance of equilibration times, performance of shut-in tests, and purging activities, was conducted in accordance with the Soil Gas Advisory. Seven soil gas samples were collected into 1-liter Summa canisters at a rate of 200 milliliters per minute or less. The tracer gas 1,1-difluoroethane (1,1-DFA) was introduced to ambient air surrounding the sampling train by soaking a cotton swab with liquid 1,1-DFA and placing it at the location where the soil gas probe tubing exited the ground.

Upon completion of sample collection at each location, a 1-liter Tedlar bag was filled with soil gas by a syringe from the probe tubing at each soil gas location. Each Tedlar bag was then connected to a calibrated Landtec Gem5000 landfill gas monitor for on-site methane evaluation.

The Summa canisters were transported under chain-of-custody protocols to a California-certified laboratory, and were analyzed for VOCs by EPA Method TO-15. The soil gas probes were then abandoned by extracting as much tubing as practical, filling the boring with bentonite grout and restoring the surface to match surrounding conditions.

## 4.2 SUMMARY OF ANALYTICAL RESULTS FOR SOIL GAS

The soil gas analytical results were compared to DTSC Screening Levels for indoor air, EPA Regional Screening Levels for indoor air, and the San Francisco Water Quality Control Board Environmental Screening Levels for TPH-g, which were adjusted using suggested attenuation factors provided in the Vapor Intrusion Guidance prepared by DTSC and the California



Environmental Protection Agency (2011). The attenuation factor used for this comparison was 0.03 published in HHRA Note 3. The methane screening results were obtained in percent, and compared to the DTSC screening level for methane of 0.5 percent by volume<sup>5</sup> (10 percent of the lower explosive limit for methane).

A summary of soil gas analytical results from December 2022 is provided in Table 5 and PCE in soil gas results are shown on Figure 3. In order to provide a comprehensive understanding of analytical results for the Site, PCE in soil gas from previous investigations is also shown on Figure 3, and analytical results from previous investigations are included in the attached data tables.

Soil gas analytical and methane screening results from the December 2022 sampling event are summarized below. A written summary of previous results can be found in each related previous report.

- PCE was not detected at a concentration exceeding the laboratory reporting limit of 0.1  $\mu\text{g}/\text{m}^3$  in soil gas samples collected from locations SVP-20 or SVP-23 on the southwestern and central portions of the planned building, respectively.
- PCE was detected at concentrations of 3.5  $\mu\text{g}/\text{m}^3$  in SVP-21, 2.6  $\mu\text{g}/\text{m}^3$  in SVP-22, 5.7  $\mu\text{g}/\text{m}^3$  in SVP-24, 13.0  $\mu\text{g}/\text{m}^3$  in SVP-25, and 60.2  $\mu\text{g}/\text{m}^3$  in SVP-26, which are less than the calculated industrial SGSL of 67  $\mu\text{g}/\text{m}^3$  using the 0.03 attenuation factor. These samples were collected from beneath the north-central and east-central portions of the planned building. Borings SVP-24, SVP-25, and SVP-26 were located in the immediate vicinity of former borings that contained elevated concentrations of PCE in the soil gas samples collected at a depth of 4 feet bgs in March 2022: 70  $\mu\text{g}/\text{m}^3$  in SVP-5, 232  $\mu\text{g}/\text{m}^3$  in SVP-8, and 247  $\mu\text{g}/\text{m}^3$  in SVP-7, respectively.
- Trace concentrations of cyclohexane, trichlorofluoromethane (Freon 11), dichlorodifluoro-methane (Freon 12), ethylbenzene, toluene, total xylenes, 1,2,4-trimethyl-benzene, and carbon disulfide were detected in soil gas samples collected from various locations at concentrations exceeding their laboratory reporting limit of 1.0  $\mu\text{g}/\text{m}^3$ , but well below their respective calculated industrial SGSLs using the 0.03 attenuation factor;
- Methane was not detected at concentrations exceeding the detection level of 0.1 percent in soil gas samples collected from locations SVP-20 through SVP-26 using a Landtec Gem5000 landfill gas monitor for methane evaluation.
- The tracer gas 1,1-DFA was not detected at a concentration exceeding the laboratory reporting limit in the soil gas samples collected from locations SVP-20 through SVP-26.

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<sup>5</sup> *Advisory on Methane Assessment and Common Remedies at School Sites* dated June 16, 2005, prepared by Department of Toxic Substances Control (2005).



### 4.3 INVESTIGATION-DERIVED WASTE

Investigation-derived waste generated during this sampling event consisted of a small amount of excess soil removed from each boring. The excess soil did not display evidence of chemical impact based on visual, olfactory inspection, or photoionization detector screening. Previous soil sample analytical results indicate that Site soil is suitable for on-Site reuse. Excess soil was reused at the Site.



## 5.0 CONCLUSIONS AND RECOMMENDATIONS

Farallon conducted a soil gas investigation in December 2022 to further investigate impacts of VOCs previously identified in soil gas beneath the planned new building footprint at the Site. Previous soil gas data indicated that PCE was present at concentrations exceeding calculated industrial screening levels using the 0.03 attenuation factor in soil gas samples collected beneath and proximate to the planned new building footprint, specifically west of and beneath Building B; proximate to the former location of the 12,000-gallon diesel fuel UST; proximate to the former location of two 12,000 gallon USTs; and proximate to the vehicle washdown area with sump. PCE also was detected at concentrations less than the calculated industrial screening levels in soil gas in other soil gas samples collected at the Site.

For the December 2022 soil gas investigation, seven borings were advanced in the planned new building footprint. Soil gas probes were generally evenly distributed across the planned new building footprint, with selected probes placed proximate to areas previously identified as impacted by PCE. The borings were converted to temporary soil gas probes at a depth of 4 feet bgs and soil gas samples were collected and analyzed for VOCs and methane.

PCE was detected in five of the seven soil gas samples at concentrations exceeding the laboratory reporting limit of 0.1 ug/m<sup>3</sup>. PCE detections in four of the soil gas samples ranged from 3.5 ug/m<sup>3</sup> to 13.0 ug/m<sup>3</sup>; however, one detection of PCE (60.2 ug/m<sup>3</sup> in SVP-26) approached the calculated industrial SGSL of 67 ug/m<sup>3</sup> using a 0.3 attenuation factor. The detections of PCE in soil gas samples, which were collocated with soil gas samples collected during previous investigations, were less than detections of PCE in soil gas samples collected in 2016 by Partner and March 2022 by Farallon.

Other VOCs were not found during this investigation to be present in soil gas samples at concentrations approaching applicable screening levels. Methane was not detected in the soil gas samples.

Soil gas sampling at the Site has provided evidence of fluctuating concentrations of PCE. PCE concentrations detected in soil gas samples collected by Partner in July 2016 and by Farallon in March 2022 exceeded the calculated SGSL using a 0.03 attenuation factor at select locations. PCE was not detected above the laboratory reporting limit in soil gas samples collected by Farallon in September 2022. PCE was not detected at concentrations above the laboratory reporting limit or was detected at concentrations less than the calculated SGSL using a 0.03 attenuation factor in soil gas samples collected by Farallon in December 2022. The variability of reported concentrations of PCE in soil gas between the four soil gas sampling events suggests that PCE concentrations in soil gas may be influenced by variables such as seasonal changes. Because PCE detections in soil gas from the September and December 2022 investigations either were not detected above laboratory reporting limits or were less than the calculated SGSL using a 0.03 attenuation factor, and sampling locations were chosen in areas of known impacts, sampling data from the last two sampling rounds has not established the potential for an unacceptable vapor intrusion risk in the planned future building footprint. Based on the industrial nature of the use of the Site, Farallon recommends





implementation of a Media Management Plan to address any soil impacts associated with historical activities at the Site that may be encountered during Site redevelopment.



## 6.0 REFERENCES

- California Department of Toxic Substances Control. 2005. *Advisory on Methane Assessment and Common Remedies at School Sites*. June 16.
- California Department of Toxic Substances Control, Human and Ecological Risk Office. 2022. *Human Health Risk Assessment (HHRA) Note Number 3, DTSC-modified Screening Levels (DTSC-SLs)*. May.
- California Department of Toxic Substances Control, and California Environmental Protection Agency. 2011. *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance)*, Final. October.
- California Environmental Protection Agency, Department of Toxic Substances Control, Los Angeles Regional Water Quality Control Board, and San Francisco Regional Water Quality Control Board. 2015. *Advisory: Active Soil Gas Investigations*. July.
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- Farallon Consulting, L.L.C. (Farallon). 2022a. *Phase I/Phase II Environmental Site Assessment Report, 5355 East Airport Drive, Ontario, California*. Prepared for Prologis, Inc. March 31.
- . 2022b. *Work Change Order 1071-080-002-WCO 004, Master Services Agreement, Farallon Consulting, L.L.C. and Prologis, Inc.* Between Gavin Polite Fisco, Prologis, Inc. and Scott Allin, Farallon Consulting, L.L.C. December 5.
- . 2022c. *Additional Subsurface Investigation Report, 5355 East Airport Drive, Ontario, California*. Prepared for Prologis, Inc. December 13.
- Partner Engineering and Science, Inc. 2016. *Phase II Subsurface Soil Gas Report, 5355 East Airport Drive, Ontario, California 91761*. Prepared for Prologis. August 16.
- U.S. Environmental Protection Agency. 2022. Regional Screening Level Summary Table. <<https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>>. November.



## 7.0 LIMITATIONS

### 7.1 GENERAL LIMITATIONS

The conclusions contained in this report/assessment are based on professional opinions with regard to the subject matter. These opinions have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location. The conclusions contained herein are subject to the following inherent limitations:

- **Accuracy of Information.** Farallon obtained, reviewed, and evaluated certain information used in this report/assessment from sources that were believed to be reliable. Farallon's conclusions, opinions, and recommendations are based in part on such information. Farallon's services did not include verification of its accuracy or authenticity. Should the information upon which Farallon relied prove to be inaccurate or unreliable, Farallon reserves the right to amend or revise its conclusions, opinions, and/or recommendations.
- **Reconnaissance and/or Characterization.** Farallon performed a reconnaissance and/or characterization of the Site that is the subject of this report/assessment to document current conditions. Farallon focused on areas deemed more likely to exhibit hazardous materials conditions. Contamination may exist in other areas of the Site that were not investigated or were inaccessible. Site activities beyond Farallon's control could change at any time after the completion of this report/assessment.

For the foregoing reasons, Farallon cannot and does not warrant or guarantee that the Site is free of hazardous or potentially hazardous substances or conditions, or that latent or undiscovered conditions will not become evident in the future. Farallon's observations, findings, and opinions can be considered valid only as of the date of the report.

This report/assessment has been prepared in accordance with the contract for services between Farallon and Prologis, L.P. and currently accepted industry standards. No other warranties, representations, or certifications are made.

### 7.2 LIMITATION ON RELIANCE BY THIRD PARTIES

**Reliance by third parties is prohibited.** This report/assessment has been prepared for the exclusive use of Prologis, L.P. to address the unique needs of Prologis, L.P. at the Site at a specific point in time.

This is not a general grant of reliance. No one other than Prologis, L.P. may rely on this report unless Farallon agrees in advance to such reliance in writing. Any unauthorized use, interpretation, or reliance on this report/assessment is at the sole risk of that party, and Farallon will have no liability for such unauthorized use, interpretation, or reliance.

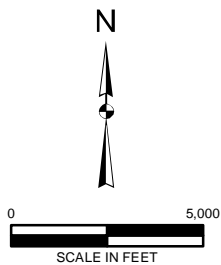
## FIGURES

SOIL GAS INVESTIGATION REPORT  
5355 East Airport Drive  
Ontario, California

Farallon PN: 1071-080 (Task 2)



REFERENCE: 7.5 MINUTE USGS QUADRANGLE GUASTI, CALIFORNIA, DATED 2013



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California  
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## FIGURE 1

SITE VICINITY MAP  
5355 EAST AIRPORT DRIVE  
ONTARIO, CALIFORNIA

FARALLON PN: 1071-080-004

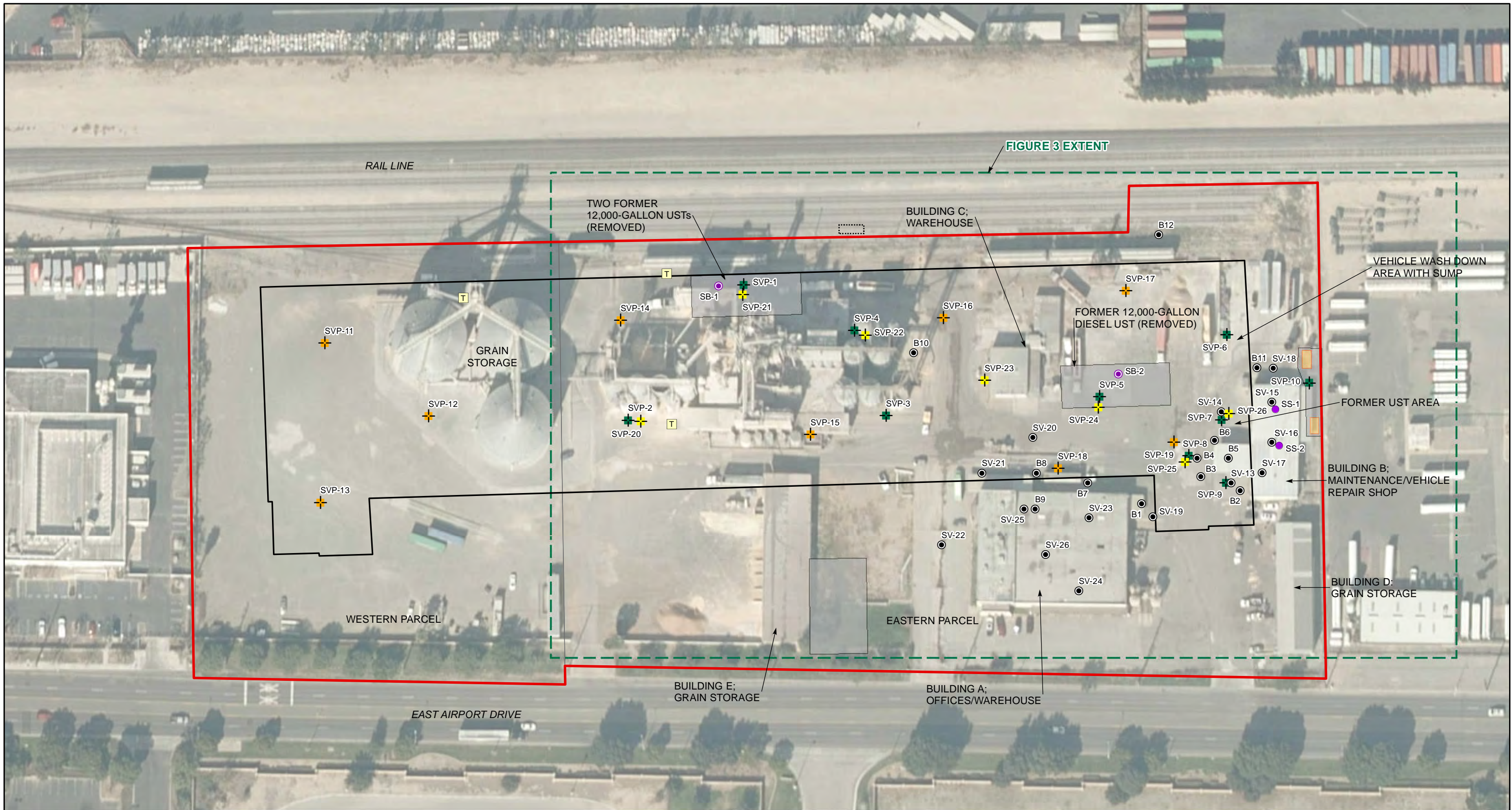
Drawn By: jjones

Checked By: PS

Date: 12/29/2022

Disc Reference:

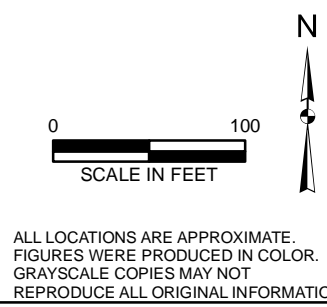
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**LEGEND**

- + SOIL GAS PROBE (FARALLON, DECEMBER 2022)
- + SOIL GAS PROBE (FARALLON, SEPTEMBER 2022)
- + SOIL GAS PROBE (FARALLON, MARCH 2022)
- SUBSLAB SOIL GAS PROBE (FARALLON, MARCH 2022)
- BORING (FARALLON, MARCH 2022)
- SOIL GAS PROBE (PARTNER, 2016)
- T TRANSFORMER
- FORMER SITE FEATURE
- OBSERVED SEPTIC TANK LOCATION
- GROUND-PENETRATING RADAR SCAN AREA
- PROPOSED BUILDING FOOTPRINT
- SITE BOUNDARY

SAN BERNARDINO COUNTY PARCEL BOUNDARY  
 AST = ABOVEGROUND STORAGE TANK  
 GPR = GROUND-PENETRATING RADAR  
 UST = UNDERGROUND STORAGE TANK  
 GPR SURVEY AREA - 2022 (NO UST FOUND)



Washington  
Issaquah | Bellingham | Seattle

Oregon  
Portland | Baker City

California  
Oakland | Irvine

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**FIGURE 2**

**SITE PLAN AND SAMPLING LOCATIONS**

5355 EAST AIRPORT DRIVE  
ONTARIO, CALIFORNIA

FARALLON PN: 1071-080-004

Disc Reference:

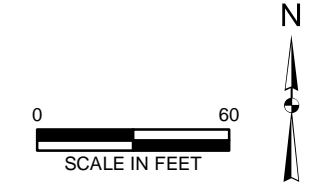
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NOTES:  
 SAMPLE DATE, DEPTH, AND ANALYTICAL RESULTS AS:  
 SAMPLE DATE | SAMPLE DEPTH IN FEET BELOW GROUND SURFACE | PCE  
 SOIL GAS ANALYTICAL RESULTS IN MICROGRAMS PER CUBIC METER.  
**BOLD** = DENOTES CONCENTRATIONS THAT EXCEEDED THE COMMERCIAL  
 SUBSLAB/SOIL GAS VAPOR INTRUSION ENVIRONMENTAL  
 SCREENING LEVEL.  
 <= DENOTES ANALYTE NOT DETECTED AT OR EXCEEDING THE  
 LISTED REPORTING LIMIT.  
 PCE = TETRACHLOROETHENE

LEGEND	
	SOIL GAS PROBE (FARALLON, DECEMBER 2022)
	SOIL GAS PROBE (FARALLON, SEPTEMBER 2022)
	SOIL GAS PROBE (FARALLON, MARCH 2022)
	SUBSLAB SOIL GAS PROBE (FARALLON, MARCH 2022)
	SOIL GAS PROBE (PARTNER, 2016)
	TRANSFORMER
	FORMER SITE FEATURE
	OBSERVED SEPTIC TANK LOCATION
	GROUND-PENETRATING RADAR SCAN AREA
	PROPOSED BUILDING FOOTPRINT
	SITE BOUNDARY
	SAN BERNARDINO COUNTY PARCEL BOUNDARY

AST = ABOVEGROUND STORAGE TANK  
 GPR = GROUND-PENETRATING RADAR  
 UST = UNDERGROUND STORAGE TANK  
 GPR SURVEY AREA - 2022 (NO UST FOUND)



Washington  
Issaquah | Bellingham | Seattle

Oregon  
Portland | Baker City

California  
Oakland | Irvine

**FIGURE 3**  
**PCE IN SOIL GAS**  
**5355 EAST AIRPORT DRIVE**  
**ONTARIO, CALIFORNIA**

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## **TABLES**

**SOIL GAS INVESTIGATION REPORT**  
5355 East Airport Drive  
Ontario, California

**Farallon PN: 1071-080 (Task 2)**



**Table 1**  
**Sampling Rationale**  
**5355 East Airport Road**  
**Ontario, California**  
**Farallon PN: 1071-080-004**

Sample ID	Location	Rationale	Boring Depth (feet bgs)	Sample Depth (feet bgs)	Matrix to be Sampled	Analysis
SVP-20	Planned New Building Footprint	Assess the potential for soil gas at former soil vapor point SVP-2	4.5	4	Soil Gas	VOCs via TO-15 Methane
SVP-21	Planned New Building Footprint	Assess the potential for soil gas at former soil vapor point SVP-1	4.5	4	Soil Gas	VOCs via TO-15 Methane
SVP-22	Planned New Building Footprint	Assess the potential for soil gas at former soil vapor point SVP-4	4.5	4	Soil Gas	VOCs via TO-15 Methane
SVP-23	Planned New Building Footprint	Assess the potential for soil gas under the future building	4.5	4	Soil Gas	VOCs via TO-15 Methane
SVP-24	Planned New Building Footprint	Assess the potential for soil gas at former soil vapor point SVP-5	4.5	4	Soil Gas	VOCs via TO-15 Methane
SVP-25	Planned New Building Footprint	Assess the potential for soil gas at former soil vapor point SVP-8	4.5	4	Soil Gas	VOCs via TO-15 Methane
SVP-26	Planned New Building Footprint	Assess the potential for soil gas at former soil vapor point SVP-7	4.5	4	Soil Gas	VOCs via TO-15 Methane

**NOTES:**

bgs = below ground surface

VOC = volatile organic compound

TO-15 = US Environmental Protection Agency Method TO-15

**Table 2**  
**Cumulative Summary of Volatile Organic Compounds in Soil**  
**5355 East Airport Road**  
**Ontario, California**  
**Farallon PN: 1071-080-002**

Sample Location	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	Analytical Results (milligrams per kilogram) <sup>2</sup>					
					PCE	Benzene	Toluene	Ethylbenzene	Total Xylenes	Other VOCs
B1	Partner	B1-1	1.0	7/21/2016	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.015	ND
B2	Partner	B2-1	1.0	7/21/2016	< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.0131	ND
B3	Partner	B3-15	15.0	7/21/2016	< 0.0043	< 0.0043	< 0.0043	< 0.0043	< 0.0129	ND
B4	Partner	B4-10	10.0	7/21/2016	< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.0132	ND
B5	Partner	B5-15	15.0	7/21/2016	< 0.0041	< 0.0041	< 0.0041	< 0.0041	< 0.0123	ND
B6	Partner	B6-10	10.0	7/21/2016	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.015	ND
B7	Partner	B7-10	10.0	7/21/2016	< 0.0043	< 0.0043	< 0.0043	< 0.0043	< 0.013	ND
B8	Partner	B8-10	10.0	7/21/2016	< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.0133	ND
B9	Partner	B9-1	1.0	7/21/2016	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.015	ND
B10	Partner	B10-1	1.0	7/21/2016	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.015	ND
B11	Partner	B11-1	1.0	7/21/2016	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.015	ND
B12	Partner	B12-1	1.0	7/21/2016	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.015	ND
SB-1	Farallon	SB-1-10'	10.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SB-2	Farallon	SB-1-10'	10.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-1	Farallon	SVP-1-10'	10.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-2	Farallon	SVP-2-4'	4.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-3	Farallon	SVP-3-4'	4.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-4	Farallon	SVP-4-4'	4.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-5	Farallon	SVP-5-10'	10.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-6	Farallon	SVP-6-4'	4.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
	Farallon	SVP-6-8'	8.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-7	Farallon	SVP-7-4'	4.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-8	Farallon	SVP-8-4'	4.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-9	Farallon	SVP-9-4'	4.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-10	Farallon	SVP-10-8'	8.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
<b>Commercial/Industrial Soil RSL<sup>3</sup></b>					<b>2.7</b>	<b>1.4</b>	<b>5,300</b>	<b>25</b>	<b>2,500</b>	<b>Various</b>

**NOTES:**

< denotes analyte not detected at or exceeding the reporting limit listed.

<sup>1</sup>Depth in feet below ground surface.

<sup>2</sup>Analyzed by U.S. Environmental Protection Agency (EPA) Method 8260B. Only select VOCs shown in table; see lab reports for full list of analytes.

<sup>3</sup>June 2020 (Revised May 2022) Department of Toxic Substances Control (DTSC) Regional Screening Levels (RSLs). If DTSC RSLs do not exist, November 2022 EPA RSLs were used and noted in blue text.

Farallon = Farallon Consulting, LLC

ND = not detected at or above the laboratory reporting limit

Partner = Partner Engineering and Science, Inc.

PCE = Tetrachloroethene

RSL = Regional Screening Level

VOCs = volatile organic compounds

**Table 3**  
**Cumulative Summary of Total Petroleum Hydrocarbons in Soil**  
**5355 East Airport Road**  
**Ontario, California**  
**Farallon PN: 1071-080-002**

Sample Location	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	Analytical Results (milligrams per kilogram) <sup>2</sup>		
					TPH-g (C4 - C12)	TPH-d (C13 - C22)	TPH-o (C23 - C40)
B1	Partner	B1-1	1.0	7/21/2016	< 10	< 10	< 10
B2	Partner	B2-1	1.0	7/21/2016	< 10	< 10	< 10
B3	Partner	B3-15	15.0	7/21/2016	< 10	< 10	< 10
B4	Partner	B4-10	10.0	7/21/2016	< 10	< 10	< 10
B5	Partner	B5-15	15.0	7/21/2016	< 10	< 10	< 10
B6	Partner	B6-10	10.0	7/21/2016	< 10	< 10	< 10
B7	Partner	B7-10	10.0	7/21/2016	< 10	< 10	< 10
B8	Partner	B8-10	10.0	7/21/2016	< 10	< 10	< 10
B9	Partner	B9-1	1.0	7/21/2016	< 10	< 10	< 10
B10	Partner	B10-1	1.0	7/21/2016	< 10	< 10	< 10
B11	Partner	B11-1	1.0	7/21/2016	< 10	< 10	< 10
B12	Partner	B12-1	1.0	7/21/2016	< 10	< 10	< 10
SB-1	Farallon	SB-1-10'	10.0	3/4/2022	< 0.20	< 10.0	< 10.0
SB-2	Farallon	SB-1-10'	10.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-1	Farallon	SVP-1-10'	10.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-2	Farallon	SVP-2-4'	4.0	3/4/2022	< 0.20	---	---
SVP-3	Farallon	SVP-3-4'	4.0	3/4/2022	< 0.20	---	---
SVP-4	Farallon	SVP-4-4'	4.0	3/4/2022	< 0.20	---	---
SVP-5	Farallon	SVP-5-10'	10.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-6	Farallon	SVP-6-4'	4.0	3/4/2022	< 0.20	< 10.0	< 10.0
	Farallon	SVP-6-8'	8.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-7	Farallon	SVP-7-4'	4.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-8	Farallon	SVP-8-4'	4.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-9	Farallon	SVP-9-4'	4.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-10	Farallon	SVP-10-8'	8.0	3/4/2022	< 0.20	< 10.0	< 10.0
<b>MSSL (&lt; 20 feet Above Groundwater)<sup>3</sup></b>					<b>100</b>	<b>100</b>	<b>1,000</b>
<b>MSSL (20-150 feet Above Groundwater)<sup>3</sup></b>					<b>500</b>	<b>1,000</b>	<b>10,000</b>
<b>MSSL (&gt; 150 feet Above Groundwater)<sup>3</sup></b>					<b>1,000</b>	<b>10,000</b>	<b>50,000</b>

**NOTES:**

< denotes analyte not detected at or exceeding the reporting limit listed.

--- denotes sample not analyzed.

<sup>1</sup>Depth in feet below ground surface.

<sup>2</sup>Analyzed by U.S. Environmental Protection Agency (EPA) Method 8015M (2022 samples) or 8015C (2016 samples).

<sup>3</sup>Los Angeles Regional Water Quality Control Board April 27, 2004 MSSLS for groundwater at depths of less than 20 feet, 20 to 150 feet, and greater than 150 feet below ground surface.

C = carbon range (number of carbons)

Farallon = Farallon Consulting, LLC

MSSL = maximum soil screening level

Partner = Partner Engineering and Science, Inc.

TPH-d = total petroleum hydrocarbons as diesel

TPH-g = total petroleum hydrocarbons as gasoline

TPH-o = total petroleum hydrocarbons as oil

**Table 4**  
**Cumulative Summary of Metals in Soil**  
**5355 East Airport Road**  
**Ontario, California**  
**Farallon PN: 1071-080-002**

Sample Location	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	Analytical Results (milligrams per kilogram) <sup>2</sup>									
					Barium	Cadmium	Chromium	Cobalt	Copper	Lead	Nickel	Vanadium	Zinc	Other Metals
SVP-6	Farallon	SVP-6-4'	4.0	3/4/2022	61.2	0.9	8.2	5.2	5.9	1.1	5.2	24.6	26.5	ND
	Farallon	SVP-6-8'	8.0	3/4/2022	59.6	0.9	8.5	5.2	6.0	1.2	5.2	23.1	27.0	ND
<b>Residential Soil RSL<sup>3</sup></b>					<b>15,000</b>	<b>7.1</b>	<b>NE</b>	<b>23</b>	<b>3,100</b>	<b>80</b>	<b>820</b>	<b>390</b>	<b>23,000</b>	<b>Various</b>
<b>Industrial Soil RSL<sup>3</sup></b>					<b>220,000</b>	<b>79</b>	<b>NE</b>	<b>350</b>	<b>47,000</b>	<b>500</b>	<b>11,000</b>	<b>5,800</b>	<b>350,000</b>	<b>Various</b>

NOTES:

< denotes analyte not detected at or exceeding the reporting limit listed.

<sup>1</sup>Depth in feet below ground surface.

<sup>2</sup>California Administrative Manual (CAM) Priority Pollutant List (PPL) 17 metals analyzed by U.S. Environmental Protection Agency (EPA) Method 6010B by 3050B; mercury analyzed by EPA Method 7471A. Only detected analytes shown; see laboratory report for full list of analytes.

<sup>3</sup>June 2020 (Revised May 2022) Department of Toxic Substances Control (DTSC) Regional Screening Levels (RSLs). If DTSC RSLs do not exist, November 2022 EPA RSLs were used and noted in blue text.

Farallon = Farallon Consulting, LLC

ND = not detected at or above the laboratory reporting limit

RSL = Regional Screening Level

**Table 5**  
**Cumulative Summary of Volatile Organic Compounds in Soil Gas**  
**5355 East Airport Road**  
**Ontario, California**  
**Farallon PN: 1071-080-004**

Sample Location	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	Analytical Results (micrograms per cubic meter) <sup>2</sup>													
					PCE	TCE	Cyclohexane	Trichloro-fluoro-methane (Freon 11)	Dichloro-difluoro-methane (Freon 12)	Ethylbenzene	Toluene	Total Xylenes	1,2,4-Trimethylbenzene	Carbon Disulfide	TPH-g	Methane	Other VOCs	Tracer
<b>Subslab Soil Gas Samples</b>																		
SS-1	Farallon	SS-1	0.5	3/11/2022	<b>220</b>	< 20	---	< 40	< 40	< 20	< 20	< 60	< 20	---	< 5,000	---	< 5,000	ND
SS-2	Farallon	SS-2	0.5	3/11/2022	<b>194</b>	< 20	---	< 40	< 40	< 20	< 20	< 60	< 20	---	< 5,000	---	< 5,000	ND
<b>Soil Gas Samples</b>																		
B3	Partner	B3-SG	5.0	7/21/2016	< 350 C	< 270 C	< 170 C	< 290 C	< 250 C	< 220 C	< 190 C	<b>460 C</b>	< 250 C	< 160 C	---	---	ND C	ND
B4	Partner	B4-SG	5.0	7/21/2016	< 350 C	< 270 C	< 170 C	< 290 C	< 250 C	<b>280 C</b>	< 190 C	<b>1,500 C</b>	< 250 C	< 160 C	---	---	ND C	ND
B5	Partner	B5-SG	5.0	7/21/2016	<b>100</b>	< 5.5	< 3.5	< 5.7	< 5.0	< 4.4	< 3.8	<b>12</b>	< 5.0	< 3.2	---	---	ND	ND
B6	Partner	B6-SG	5.0	7/21/2016	<b>68</b>	<b>26</b>	< 3.5	< 5.7	< 5.0	< 4.4	<b>4.0</b>	<b>23.6</b>	< 5.0	< 3.2	---	---	ND	ND
B7	Partner	B7-SG	5.0	7/21/2016	< 6.9	< 5.5	< 3.5	< 5.7	< 5.0	<b>11</b>	<b>4.9</b>	<b>92</b>	< 5.0	< 3.2	---	---	ND	ND
B8	Partner	B8-SG	5.0	7/21/2016	<b>44</b>	<b>13</b>	< 3.5	< 5.7	< 5.0	<b>21</b>	<b>13</b>	<b>178</b>	< 5.0	< 3.2	---	---	ND	ND
SV-13	Partner	SV-13-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-14	Partner	SV-14-4'	4.0	7/29/2016	<b>230</b>	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-15	Partner	SV-15-5'	5.0	7/29/2016	<b>120</b>	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-16	Partner	SV-16-4'	4.0	7/29/2016	<b>180</b>	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-17	Partner	SV-17-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-18	Partner	SV-18-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-19	Partner	SV-19-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-20	Partner	SV-20-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-21	Partner	SV-21-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-22	Partner	SV-22-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-23	Partner	SV-23-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-24	Partner	SV-24-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-25	Partner	SV-25-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-26	Partner	SV-26-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
	Partner	SV-26-5' Dup	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SVP-1	Farallon	SVP-1-4'	4.0	3/11/2022	<b>31</b>	< 20	---	< 40	< 40	< 20	<b>21</b>	< 60	< 20	---	< 5,000	---	ND	ND
	Farallon	SVP-1-10'	10.0	3/11/2022	<b>157</b>	< 20	---	< 40	< 40	< 20	<b>21</b>	< 60	< 20	---	< 5,000	---	ND	ND
SVP-2	Farallon	SVP-2-4'	4.0	3/11/2022	<b>27</b>	< 20	---	< 40	< 40	< 20	<b>34</b>	< 60	< 20	---	< 5,000	---	ND	ND
SVP-3	Farallon	SVP-3-4'	4.0	3/11/2022	< 20	< 20	---	< 40	< 40	< 20	<b>78</b>	< 60	< 20	---	< 5,000	---	ND	ND
	Farallon	SVP-3-4'REP	4.0	3/11/2022	< 20	< 20	---	< 40	< 40	< 20	<b>45</b>	< 60	< 20	---	< 5,000	---	ND	ND
SVP-4	Farallon	SVP-4-4'	4.0	3/11/2022	<b>62</b>	< 20	---	< 40	< 40	< 20	<b>80</b>	< 60	< 20	---	< 5,000	---	ND	ND
	Farallon	SVP-4-4'REP	4.0	3/11/2022	<b>57</b>	< 20	---	< 40	< 40	< 20	<b>46</b>	< 60	< 20	---	< 5,000	---	ND	ND
<b>Calculated Industrial SGSL with 0.03 Attenuation Factor<sup>3</sup></b>					<b>67</b>	<b>100</b>	<b>870,000</b>	<b>180,000</b>	<b>15,000</b>	<b>160</b>	<b>43,000</b>	<b>15,000</b>	<b>8,700</b>	<b>100,000</b>	<b>83,000</b>	<b>5%<sup>4</sup></b>	<b>Varies</b>	<b>Varies</b>

**Table 5  
Cumulative Summary of Volatile Organic Compounds in Soil Gas  
5355 East Airport Road  
Ontario, California  
Farallon PN: 1071-080-004**

Sample Location	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	Analytical Results (micrograms per cubic meter) <sup>2</sup>													
					PCE	TCE	Cyclohexane	Trichloro-fluoro-methane (Freon 11)	Dichloro-difluoro-methane (Freon 12)	Ethylbenzene	Toluene	Total Xylenes	1,2,4-Trimethyl-benzene	Carbon Disulfide	TPH-g	Methane	Other VOCs	Tracer
SVP-5	Farallon	SVP-5-4'	4.0	3/11/2022	70	< 20	---	< 40	< 40	< 20	83	< 60	< 20	---	< 5,000	---	ND	ND
	Farallon	SVP-5-10'	10.0	3/11/2022	234	< 20	---	< 40	< 40	< 20	< 20	< 60	< 20	---	< 5,000	---	ND	ND
SVP-6	Farallon	SVP-6-4'	4.0	3/11/2022	97	< 20	---	< 40	< 40	< 20	106	< 60	< 20	---	< 5,000	---	ND	ND
	Farallon	SVP-6-8'	8.0	3/11/2022	34	< 20	---	< 40	< 40	< 20	65	< 60	< 20	---	< 5,000	---	ND	ND
SVP-7	Farallon	SVP-7-4'	4.0	3/11/2022	247	< 20	---	< 40	< 40	< 20	91	< 60	< 20	---	< 5,000	---	ND	ND
SVP-8	Farallon	SVP-8-4'	4.0	3/11/2022	232	< 20	---	< 40	< 40	< 20	89	< 60	< 20	---	< 5,000	---	ND	ND
SVP-9	Farallon	SVP-9-4'	4.0	3/11/2022	24	< 20	---	< 40	< 40	< 20	87	< 60	< 20	---	< 5,000	---	ND	ND
SVP-10	Farallon	SVP-10-4'	4.0	3/11/2022	31	< 20	---	< 40	< 40	< 20	60	< 60	< 20	---	< 5,000	---	ND	ND
	Farallon	SVP-10-8'	8.0	3/11/2022	63	< 20	---	< 40	60	< 20	47	< 60	< 20	---	< 5,000	---	ND	ND
SVP-11	Farallon	SVP-11-4	4.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 50	< 25	< 250	---	---	ND	ND
	Farallon	SVP-11-10	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 50	< 25	< 250	---	---	ND	ND
SVP-12	Farallon	SVP-12-4	4.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 50	< 25	< 250	---	---	ND	ND
	Farallon	SVP-12-10	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
SVP-13	Farallon	SVP-13-4	4.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
	Farallon	SVP-13-10	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
SVP-14	Farallon	SVP-14-4	4.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
	Farallon	SVP-14-10	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
SVP-15	Farallon	SVP-15-4	4.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
	Farallon	SVP-15-10	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
SVP-16	Farallon	SVP-16-4	4.0	9/20/2022	< 25	< 25	---	< 25	< 25	50	< 25	90	< 25	< 250	---	---	ND	ND
	Farallon	SVP-16-10	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	30	< 25	90	< 25	< 250	---	---	ND	ND
SVP-17	Farallon	SVP-17-4	4.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
	Farallon	SVP-17-10	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
SVP-18	Farallon	SVP-18-4	4.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
	Farallon	SVP-18-10	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
	Farallon	SVP-18-10-DUP	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
SVP-19	Farallon	SVP-19-4	4.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
	Farallon	SVP-19-10	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
<b>Calculated Industrial SGSL with 0.03 Attenuation Factor<sup>3</sup></b>					<b>67</b>	<b>100</b>	<b>870,000</b>	<b>180,000</b>	<b>15,000</b>	<b>160</b>	<b>43,000</b>	<b>15,000</b>	<b>8,700</b>	<b>100,000</b>	<b>83,000</b>	<b>5%<sup>4</sup></b>	<b>Varies</b>	<b>Varies</b>

**Table 5  
Cumulative Summary of Volatile Organic Compounds in Soil Gas  
5355 East Airport Road  
Ontario, California  
Farallon PN: 1071-080-004**

Sample Location	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	Analytical Results (micrograms per cubic meter) <sup>2</sup>													
					PCE	TCE	Cyclohexane	Trichloro-fluoro-methane (Freon 11)	Dichloro difluoro-methane (Freon 12)	Ethylbenzene	Toluene	Total Xylenes	1,2,4-Trimethyl-benzene	Carbon Disulfide	TPH-g	Methane	Other VOCs	Tracer
SVP-20	Farallon	SVP-20	4.0	12/16/2022	< 1.0	< 1.0	<b>1.8</b>	<b>3.2</b>	<b>2.3</b>	<b>1.0</b>	<b>2.9</b>	<b>4.7</b>	< 1.0	< 1.0	---	0%	ND	ND
SVP-21	Farallon	SVP-21	4.0	12/16/2022	<b>3.5</b>	< 1.0	< 1.0	<b>2.6</b>	<b>2.6</b>	< 1.0	<b>1.6</b>	<b>4.4</b>	< 1.0	< 1.0	---	0%	ND	ND
SVP-22	Farallon	SVP-22	4.0	12/16/2022	<b>2.6</b>	< 1.0	<b>19.0</b>	<b>1.3</b>	<b>2.5</b>	<b>2.6</b>	<b>4.9</b>	<b>11.5</b>	< 1.0	< 1.0	---	0%	ND	ND
SVP-23	Farallon	SVP-23	4.0	12/16/2022	< 1.0	< 1.0	<b>1.3</b>	<b>1.3</b>	<b>2.1</b>	< 1.0	<b>1.6</b>	<b>4.1</b>	<b>4.6</b>	< 1.0	---	0%	ND	ND
SVP-24	Farallon	SVP-24	4.0	12/16/2022	<b>5.7</b>	< 1.0	< 1.0	<b>1.1</b>	<b>2.8</b>	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	---	0%	ND	ND
SVP-25	Farallon	SVP-25	4.0	12/16/2022	<b>13.0</b>	< 1.0	<b>1.0</b>	<b>1.1</b>	<b>4.7</b>	< 1.0	< 1.0	<b>1.4</b>	< 1.0	< 1.0	---	0%	ND	ND
SVP-26	Farallon	SVP-26	4.0	12/16/2022	<b>60.2</b>	< 1.0	<b>2.8</b>	<b>1.1</b>	<b>8.9</b>	<b>1.8</b>	<b>4.4</b>	<b>9.8</b>	< 1.0	<b>1.5</b>	---	0%	ND	ND
<b>Calculated Industrial SGSL with 0.03 Attenuation Factor<sup>3</sup></b>					<b>67</b>	<b>100</b>	<b>870,000</b>	<b>180,000</b>	<b>15,000</b>	<b>160</b>	<b>43,000</b>	<b>15,000</b>	<b>8,700</b>	<b>100,000</b>	<b>83,000</b>	<b>5%<sup>4</sup></b>	<b>Varies</b>	<b>Varies</b>

**NOTES:**

Results in **bold** denote concentrations detected at or above the laboratory reporting limit. Results in **bold** and highlighted **yellow** denote concentrations exceeding applicable SGSLs for the current property use (industrial/commercial).

< denotes analyte not detected at or exceeding the reporting limit listed.

--- denotes sample not analyzed or not applicable.

<sup>1</sup> Depth in feet below ground surface.

<sup>2</sup> Only detected VOCs shown in table; see lab reports for full list of analytes. Analyzed by EPA Methods 8260B/8260B-Modified (7/29/2016 (Modified), 3/11/2022, and 9/20/2022) or TO-15 (7/21/2016 and 12/16/2022), unless otherwise noted.

<sup>3</sup> Except as noted (see Footnote 4), Calculated soil gas screening levels (SGSLs) were derived by dividing the May 2022 Department of Toxic Substances Control (DTSC) screening levels (shown in black) or November 2022 U.S. Environmental Protection Agency (EPA) Regional Screening Levels (shown in blue) for VOCs, and 2019 SFBWQCB Environmental Screening Levels (ESLs) for TPH-g (shown in green) for indoor air by the noted attenuation factor.

<sup>4</sup> Methane was compared against a Lower Explosive Limit of 5% as measured by a hand-held GemTech 5000 Flame Ionization Detector

C = sample was analyzed via TO-14 due to high concentration of analytes

Farallon = Farallon Consulting, LLC

ND = not detected at or above the laboratory reporting limit

Partner = Partner Engineering and Science, Inc.

PCE = tetrachloroethene

SGSL = soil gas screening level

TCE = trichloroethene

TPH-g = total petroleum hydrocarbons, gasoline range

**APPENDIX A  
BORING LOGS**

SOIL GAS INVESTIGATION REPORT  
5355 East Airport Drive  
Ontario, California

Farallon PN: 1071-080 (Task 2)





# Log of Boring: SVP-20

<b>Client:</b> Prologis Inc	<b>Date/Time Started:</b> 12/9/22	<b>Depth to Water ATD (ft bgs):</b> NE
<b>Project:</b> 5355 Airport Drive	<b>Date/Time Completed:</b> 12/9/22	<b>Boring Diameter (in):</b> 3.25
<b>Location:</b> Ontario, California	<b>Drilling Company:</b> Millenium	<b>Total Boring Depth (ft bgs):</b> 4.5
<b>Farallon PN:</b> 1071-080	<b>Drilling Method:</b> Hand Auger	<b>Constructed Well Depth (ft bgs):</b> 4
<b>Logged By:</b> Nate Montoy	<b>Drilling Equipment:</b> Hand Auger	
<b>Reviewed By:</b> Jared Eudell	<b>Drilling Operator:</b> Andrew	
	<b>Sampler Type:</b> NA	

Depth (ft bgs)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0.0-0.3': Asphalt. Hand auger to 4.5' bgs	AC						
		0.3-4.5': Silty fine SAND (SM), brown (10YR 5/3), estimated loose, moist, no odor.	SM			0.2			Hydrated #8 Bentonite
		3.5': Trace medium sand				0.3	SVP-20		Dry #8 Bentonite
		4.5': End of boring.							#3 Sand Pack with Vapor Probe
5									
10									

### Well Construction Information

<b>Monument Type:</b>	NA	<b>Filter Pack:</b>	NA	<b>Ground Surface Elevation (ft):</b>	NA
<b>Casing Diameter (in):</b>	1/4" Nylaflo	<b>Surface Seal:</b>	NA	<b>Top of Casing Elevation (ft):</b>	NA
<b>Screen Slot Size (in):</b>	NA	<b>Annular Seal:</b>	NA	<b>Surveyed Location: X:</b>	NA
<b>Screened Interval (ft bgs):</b>	4	<b>Boring Abandonment:</b>	NA	<b>Surveyed Location: Y:</b>	NA
				<b>Unique Well ID:</b>	NA



# Log of Boring: SVP-21

<b>Client:</b> Prologis Inc	<b>Date/Time Started:</b> 12/9/22	<b>Depth to Water ATD (ft bgs):</b> NE
<b>Project:</b> 5355 Airport Drive	<b>Date/Time Completed:</b> 12/9/22	<b>Boring Diameter (in):</b> 3.25
<b>Location:</b> Ontario, California	<b>Drilling Company:</b> Millenium	<b>Total Boring Depth (ft bgs):</b> 4.5
<b>Farallon PN:</b> 1071-080	<b>Drilling Method:</b> Hand Auger	<b>Constructed Well Depth (ft bgs):</b> 4
<b>Logged By:</b> Nate Montoy	<b>Drilling Equipment:</b> Hand Auger	
<b>Reviewed By:</b> Jared Eudell	<b>Drilling Operator:</b> Andrew	
	<b>Sampler Type:</b> NA	

Depth (ft bgs)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0.0-1.2': Concrete. Hand auger to 4.5' bgs	AC						
		1.2-4.5': Silty fine SAND (SM), brown (10YR 5/3), estimated loose, moist, no odor.	SM			0.4	SVP-21		Hydrated #8 Bentonite Dry #8 Bentonite #3 Sand Pack with Vapor Probe
5		4.5': End of boring.							
10									

### Well Construction Information

<b>Monument Type:</b> NA	<b>Filter Pack:</b> NA	<b>Ground Surface Elevation (ft):</b> NA
<b>Casing Diameter (in):</b> 1/4" Nylaflo	<b>Surface Seal:</b> NA	<b>Top of Casing Elevation (ft):</b> NA
<b>Screen Slot Size (in):</b> NA	<b>Annular Seal:</b> NA	<b>Surveyed Location: X:</b> NA <b>Y:</b> NA
<b>Screened Interval (ft bgs):</b> 4	<b>Boring Abandonment:</b> NA	<b>Unique Well ID:</b> NA



# Log of Boring: SVP-22

<b>Client:</b> Prologis Inc	<b>Date/Time Started:</b> 12/9/22	<b>Depth to Water ATD (ft bgs):</b> NE
<b>Project:</b> 5355 Airport Drive	<b>Date/Time Completed:</b> 12/9/22	<b>Boring Diameter (in):</b> 3.25
<b>Location:</b> Ontario, California	<b>Drilling Company:</b> Millenium	<b>Total Boring Depth (ft bgs):</b> 4.5
<b>Farallon PN:</b> 1071-080	<b>Drilling Method:</b> Hand Auger	<b>Constructed Well Depth (ft bgs):</b> 4
<b>Logged By:</b> Nate Montoy	<b>Drilling Equipment:</b> Hand Auger	
<b>Reviewed By:</b> Jared Eudell	<b>Drilling Operator:</b> Andrew	
	<b>Sampler Type:</b> NA	

Depth (ft bgs)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0.0-0.4': Concrete: Hand auger to 4.5' bgs	AC						
		0.4-4.5': Silty fine SAND (SM), with trace medium sand, brown (10YR 5/3), estimated loose, moist, no odor.	SM			0.1			Hydrated #8 Bentonite
		3.0': Becomes brown (10YR 5/4), no medium sand.				0.3	SVP-22		Dry #8 Bentonite
		4.5': End of boring.							#3 Sand Pack with Vapor Probe
5									
10									

### Well Construction Information

<b>Monument Type:</b> NA	<b>Filter Pack:</b> NA	<b>Ground Surface Elevation (ft):</b> NA
<b>Casing Diameter (in):</b> 1/4" Nylaflow	<b>Surface Seal:</b> NA	<b>Top of Casing Elevation (ft):</b> NA
<b>Screen Slot Size (in):</b> NA	<b>Annular Seal:</b> NA	<b>Surveyed Location: X:</b> NA <b>Y:</b> NA
<b>Screened Interval (ft bgs):</b> 4	<b>Boring Abandonment:</b> NA	<b>Unique Well ID:</b> NA



# Log of Boring: SVP-23

<b>Client:</b> Prologis Inc	<b>Date/Time Started:</b> 12/9/22	<b>Depth to Water ATD (ft bgs):</b> NE
<b>Project:</b> 5355 Airport Drive	<b>Date/Time Completed:</b> 12/9/22	<b>Boring Diameter (in):</b> 3.25
<b>Location:</b> Ontario, California	<b>Drilling Company:</b> Millenium	<b>Total Boring Depth (ft bgs):</b> 4.5
<b>Farallon PN:</b> 1071-080	<b>Drilling Method:</b> Hand Auger	<b>Constructed Well Depth (ft bgs):</b> 4
<b>Logged By:</b> Nate Montoy	<b>Drilling Equipment:</b> Hand Auger	
<b>Reviewed By:</b> Jared Eudell	<b>Drilling Operator:</b> Andrew	
	<b>Sampler Type:</b> NA	

Depth (ft bgs)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0.0-0.3': Asphalt. Hand auger to 4.5' bgs	AC						
		0.3-4.5': Silty fine SAND (SM) with trace sub-angular gravel, brown (10YR 5/3), estimated loose, moist, no odor.	SM			0.4			Hydrated #8 Bentonite
		3.0': Becomes brown (10YR 5/4)							Dry #8 Bentonite
		4.5': End of boring.				0.2	SVP-23		#3 Sand Pack with Vapor Probe
5									
10									

### Well Construction Information

<b>Monument Type:</b> NA	<b>Filter Pack:</b> NA	<b>Ground Surface Elevation (ft):</b> NA
<b>Casing Diameter (in):</b> 1/4" Nylaflo	<b>Surface Seal:</b> NA	<b>Top of Casing Elevation (ft):</b> NA
<b>Screen Slot Size (in):</b> NA	<b>Annular Seal:</b> NA	<b>Surveyed Location:</b> X: NA Y: NA
<b>Screened Interval (ft bgs):</b> 4	<b>Boring Abandonment:</b> NA	<b>Unique Well ID:</b> NA



# Log of Boring: SVP-24

<b>Client:</b> Prologis Inc	<b>Date/Time Started:</b> 12/9/22	<b>Depth to Water ATD (ft bgs):</b> NE
<b>Project:</b> 5355 Airport Drive	<b>Date/Time Completed:</b> 12/9/22	<b>Boring Diameter (in):</b> 3.25
<b>Location:</b> Ontario, California	<b>Drilling Company:</b> Millenium	<b>Total Boring Depth (ft bgs):</b> 4.5
<b>Farallon PN:</b> 1071-080	<b>Drilling Method:</b> Hand Auger	<b>Constructed Well Depth (ft bgs):</b> 4
<b>Logged By:</b> Nate Montoy	<b>Drilling Equipment:</b> Hand Auger	
<b>Reviewed By:</b> Jared Eudell	<b>Drilling Operator:</b> Andrew	
	<b>Sampler Type:</b> NA	

Depth (ft bgs)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
0		0.0-0.7': Asphalt. Hand auger to 4.5' bgs	AC						
		0.7-4.5': Silty fine SAND (SM) with sub-angular gravel, brown (10YR 5/3), estimated loose, moist, no odor.	SM			0.5			Hydrated #8 Bentonite
						0.4	SVP-24		Dry #8 Bentonite
									#3 Sand Pack with Vapor Probe
5		4.5': End of boring.							
10									

### Well Construction Information

<b>Monument Type:</b> NA	<b>Filter Pack:</b> NA	<b>Ground Surface Elevation (ft):</b> NA
<b>Casing Diameter (in):</b> 1/4" Nylaflow	<b>Surface Seal:</b> NA	<b>Top of Casing Elevation (ft):</b> NA
<b>Screen Slot Size (in):</b> NA	<b>Annular Seal:</b> NA	<b>Surveyed Location: X:</b> NA <b>Y:</b> NA
<b>Screened Interval (ft bgs):</b> 4	<b>Boring Abandonment:</b> NA	<b>Unique Well ID:</b> NA



# Log of Boring: SVP-25

<b>Client:</b> Prologis Inc	<b>Date/Time Started:</b> 12/9/22	<b>Depth to Water ATD (ft bgs):</b> NE
<b>Project:</b> 5355 Airport Drive	<b>Date/Time Completed:</b> 12/9/22	<b>Boring Diameter (in):</b> 3.25
<b>Location:</b> Ontario, California	<b>Drilling Company:</b> Millenium	<b>Total Boring Depth (ft bgs):</b> 4.5
<b>Farallon PN:</b> 1071-080	<b>Drilling Method:</b> Hand Auger	<b>Constructed Well Depth (ft bgs):</b> 4
<b>Logged By:</b> Nate Montoy	<b>Drilling Equipment:</b> Hand Auger	
<b>Reviewed By:</b> Jared Eudell	<b>Drilling Operator:</b> Andrew	
	<b>Sampler Type:</b> NA	

Depth (ft bgs)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
----------------	-----------------	------------------------	------	--------------	------------	------------	-----------	-----------------	----------------------------------

0	0.0-0.4'	Concrete. Hand auger to 4.5' bgs	AC						
	0.4-4.5'	Silty fine SAND (SM) with sub-angular gravel, brown (10YR 5/4), estimated loose, moist, no odor.	SM			0.9			Hydrated #8 Bentonite
						0.4	SVP-25		Dry #8 Bentonite
									#3 Sand Pack with Vapor Probe
5	4.5'	End of boring.							
10									

### Well Construction Information

<b>Monument Type:</b> NA	<b>Filter Pack:</b> NA	<b>Ground Surface Elevation (ft):</b> NA
<b>Casing Diameter (in):</b> 1/4" Nylaflow	<b>Surface Seal:</b> NA	<b>Top of Casing Elevation (ft):</b> NA
<b>Screen Slot Size (in):</b> NA	<b>Annular Seal:</b> NA	<b>Surveyed Location: X:</b> NA <b>Y:</b> NA
<b>Screened Interval (ft bgs):</b> 4	<b>Boring Abandonment:</b> NA	<b>Unique Well ID:</b> NA



# Log of Boring: SVP-26

<b>Client:</b> Prologis Inc	<b>Date/Time Started:</b> 12/9/22	<b>Depth to Water ATD (ft bgs):</b> NE
<b>Project:</b> 5355 Airport Drive	<b>Date/Time Completed:</b> 12/9/22	<b>Boring Diameter (in):</b> 3.25
<b>Location:</b> Ontario, California	<b>Drilling Company:</b> Millenium	<b>Total Boring Depth (ft bgs):</b> 4.5
<b>Farallon PN:</b> 1071-080	<b>Drilling Method:</b> Hand Auger	<b>Constructed Well Depth (ft bgs):</b> 4
<b>Logged By:</b> Nate Montoy	<b>Drilling Equipment:</b> Hand Auger	
<b>Reviewed By:</b> Jared Eudell	<b>Drilling Operator:</b> Andrew	
	<b>Sampler Type:</b> NA	

Depth (ft bgs)	Sample Interval	Lithologic Description	USCS	USCS Graphic	% Recovery	PID (ppmv)	Sample ID	Sample Analyzed	Boring/Well Construction Details
----------------	-----------------	------------------------	------	--------------	------------	------------	-----------	-----------------	----------------------------------

0	0.0-0.4': Concrete. Hand auger to 4.5' bgs	AC							
	0.4-4.5': Silty fine SAND (SM), brown (10YR 5/3), estimated loose, moist, no odor.	SM			0.6				Hydrated #8 Bentonite
									Dry #8 Bentonite
						1.0	SVP-26		#3 Sand Pack with Vapor Probe
5	4.5': End of boring.								
10									

### Well Construction Information

<b>Monument Type:</b> NA	<b>Filter Pack:</b> NA	<b>Ground Surface Elevation (ft):</b> NA
<b>Casing Diameter (in):</b> 1/4" Nylaflo	<b>Surface Seal:</b> NA	<b>Top of Casing Elevation (ft):</b> NA
<b>Screen Slot Size (in):</b> NA	<b>Annular Seal:</b> NA	<b>Surveyed Location: X:</b> NA <b>Y:</b> NA
<b>Screened Interval (ft bgs):</b> 4	<b>Boring Abandonment:</b> NA	<b>Unique Well ID:</b> NA

**APPENDIX B  
LABORATORY ANALYTICAL REPORTS**

**SOIL GAS INVESTIGATION REPORT  
5355 East Airport Drive  
Ontario, California**

**Farallon PN: 1071-080 (Task 2)**





714-449-9937  
562-646-1611

11007 FOREST PLACE  
SANTA FE SPRINGS, CA 90670  
WWW.JONESENV.COM

22 December 2022

Kathy Lehnus  
Farallon Consulting  
27 Mauchly Suite 213  
Irvine, CA 92618

Re: 5355 E. Airport Drive

Enclosed are the results of analyses for samples received by the laboratory on 12/16/22. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Colby Wakeman".

Colby Wakeman  
Lab Director

Farallon Consulting  
27 Mauchly Suite 213  
Irvine, CA 92618

Project: 5355 E. Airport Drive  
Project Number: 1071-080  
Project Manager: Kathy Lehnus

Reported  
12/22/22 11:54

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SVP-20	JEI220368-01	Soil Gas	12/16/2022 08:51	12/16/2022 15:16
SVP-21	JEI220368-02	Soil Gas	12/16/2022 09:26	12/16/2022 15:16
SVP-22	JEI220368-03	Soil Gas	12/16/2022 10:07	12/16/2022 15:16
SVP-23	JEI220368-04	Soil Gas	12/16/2022 10:46	12/16/2022 15:16
SVP-24	JEI220368-05	Soil Gas	12/16/2022 11:35	12/16/2022 15:16
SVP-26	JEI220368-06	Soil Gas	12/16/2022 12:07	12/16/2022 15:16
SVP-25	JEI220368-07	Soil Gas	12/16/2022 12:39	12/16/2022 15:16

Jones Environmental, Inc.



Colby Wakeman  
Lab Director

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Farallon Consulting  
27 Mauchly Suite 213  
Irvine, CA 92618

Project: 5355 E. Airport Drive  
Project Number: 1071-080  
Project Manager: Kathy Lehnus

Reported  
12/22/22 11:54

**DETECTIONS SUMMARY**

**Sample ID:** SVP-20

**Laboratory ID:** JEI220368-01

Analyte	Result	Reporting Limit	Units	Method	Notes
Cyclohexane	1.8	1.0	µg/m3	EPA TO-15	
Ethylbenzene	1.0	1.0	µg/m3	EPA TO-15	
Freon 11	3.2	1.0	µg/m3	EPA TO-15	
Freon 12	2.3	1.0	µg/m3	EPA TO-15	
Toluene	2.9	1.0	µg/m3	EPA TO-15	
m+p-Xylene	4.7	1.0	µg/m3	EPA TO-15	

**Sample ID:** SVP-21

**Laboratory ID:** JEI220368-02

Analyte	Result	Reporting Limit	Units	Method	Notes
Freon 11	2.6	1.0	µg/m3	EPA TO-15	
Freon 12	2.6	1.0	µg/m3	EPA TO-15	
Tetrachloroethene	3.5	1.0	µg/m3	EPA TO-15	
Toluene	1.6	1.0	µg/m3	EPA TO-15	
m+p-Xylene	3.0	1.0	µg/m3	EPA TO-15	
o-Xylene	1.4	1.0	µg/m3	EPA TO-15	

**Sample ID:** SVP-22

**Laboratory ID:** JEI220368-03

Analyte	Result	Reporting Limit	Units	Method	Notes
Cyclohexane	19.0	1.0	µg/m3	EPA TO-15	
Ethylbenzene	2.6	1.0	µg/m3	EPA TO-15	
Freon 11	1.3	1.0	µg/m3	EPA TO-15	
Freon 12	2.5	1.0	µg/m3	EPA TO-15	
Tetrachloroethene	2.6	1.0	µg/m3	EPA TO-15	
Toluene	4.9	1.0	µg/m3	EPA TO-15	
m+p-Xylene	11.5	1.0	µg/m3	EPA TO-15	

Jones Environmental, Inc.



Colby Wakeman  
Lab Director

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Farallon Consulting  
27 Mauchly Suite 213  
Irvine, CA 92618

Project: 5355 E. Airport Drive  
Project Number: 1071-080  
Project Manager: Kathy Lehnus

Reported  
12/22/22 11:54

**DETECTIONS SUMMARY**

**Sample ID:** SVP-23

**Laboratory ID:** JEI220368-04

Analyte	Result	Reporting Limit	Units	Method	Notes
Cyclohexane	1.3	1.0	µg/m3	EPA TO-15	
Freon 11	1.3	1.0	µg/m3	EPA TO-15	
Freon 12	2.1	1.0	µg/m3	EPA TO-15	
Toluene	1.6	1.0	µg/m3	EPA TO-15	
1,2,4-Trimethylbenzene	4.6	1.0	µg/m3	EPA TO-15	
m+p-Xylene	4.1	1.0	µg/m3	EPA TO-15	

**Sample ID:** SVP-24

**Laboratory ID:** JEI220368-05

Analyte	Result	Reporting Limit	Units	Method	Notes
Freon 11	1.1	1.0	µg/m3	EPA TO-15	
Freon 12	2.8	1.0	µg/m3	EPA TO-15	
Tetrachloroethene	5.7	1.0	µg/m3	EPA TO-15	

**Sample ID:** SVP-26

**Laboratory ID:** JEI220368-06

Analyte	Result	Reporting Limit	Units	Method	Notes
Carbon Disulfide	1.5	1.0	µg/m3	EPA TO-15	
Cyclohexane	2.8	1.0	µg/m3	EPA TO-15	
Ethylbenzene	1.8	1.0	µg/m3	EPA TO-15	
Freon 11	1.1	1.0	µg/m3	EPA TO-15	
Freon 12	8.9	1.0	µg/m3	EPA TO-15	
Tetrachloroethene	60.2	1.0	µg/m3	EPA TO-15	
Toluene	4.4	1.0	µg/m3	EPA TO-15	
m+p-Xylene	6.6	1.0	µg/m3	EPA TO-15	
o-Xylene	3.2	1.0	µg/m3	EPA TO-15	

**Sample ID:** SVP-25

**Laboratory ID:** JEI220368-07

Analyte	Result	Reporting Limit	Units	Method	Notes
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Jones Environmental, Inc.



Colby Wakeman  
Lab Director

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Farallon Consulting 27 Mauchly Suite 213 Irvine, CA 92618	Project: 5355 E. Airport Drive Project Number: 1071-080 Project Manager: Kathy Lehnus	Reported 12/22/22 11:54
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**DETECTIONS SUMMARY**

**Sample ID:** SVP-25

**Laboratory ID:** JEI220368-07

Analyte	Result	Reporting Limit	Units	Method	Notes
Cyclohexane	1.0	1.0	µg/m3	EPA TO-15	
Freon 11	1.1	1.0	µg/m3	EPA TO-15	
Freon 12	4.7	1.0	µg/m3	EPA TO-15	
Tetrachloroethene	13.0	1.0	µg/m3	EPA TO-15	
m+p-Xylene	1.4	1.0	µg/m3	EPA TO-15	

Jones Environmental, Inc.



Colby Wakeman  
Lab Director

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Farallon Consulting  
27 Mauchly Suite 213  
Irvine, CA 92618

Project: 5355 E. Airport Drive  
Project Number: 1071-080  
Project Manager: Kathy Lehnus

Reported  
12/22/22 11:54

**SVP-20**  
JEI220368-01(Soil Gas)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatiles Organic Compounds by EPA TO-15</b>									
Benzene	ND	1.0	µg/m3	1	QC2212085		12/19/22	EPA TO-15	
Bromodichloromethane	ND	1.0	µg/m3	"	"		"	"	
Bromoform	ND	1.0	µg/m3	"	"		"	"	
1,3-Butadiene	ND	1.0	µg/m3	"	"		"	"	
n-Butylbenzene	ND	1.0	µg/m3	"	"		"	"	
sec-Butylbenzene	ND	1.0	µg/m3	"	"		"	"	
tert-Butylbenzene	ND	1.0	µg/m3	"	"		"	"	
Carbon tetrachloride	ND	1.0	µg/m3	"	"		"	"	
Chlorobenzene	ND	1.0	µg/m3	"	"		"	"	
Chloroform	ND	1.0	µg/m3	"	"		"	"	
Carbon Disulfide	ND	1.0	µg/m3	"	"		"	"	
Cyclohexane	1.8	1.0	µg/m3	"	"		"	"	
Dibromochloromethane	ND	1.0	µg/m3	"	"		"	"	
1,2-Dibromoethane (EDB)	ND	1.0	µg/m3	"	"		"	"	
1,4-Dioxane	ND	1.0	µg/m3	"	"		"	"	
1,2-Dichlorobenzene	ND	1.0	µg/m3	"	"		"	"	
1,3-Dichlorobenzene	ND	1.0	µg/m3	"	"		"	"	
1,4-Dichlorobenzene	ND	1.0	µg/m3	"	"		"	"	
1,1-Dichloroethane	ND	1.0	µg/m3	"	"		"	"	
1,2-Dichloroethane	ND	1.0	µg/m3	"	"		"	"	
1,1-Dichloroethene	ND	1.0	µg/m3	"	"		"	"	
cis-1,2-Dichloroethene	ND	1.0	µg/m3	"	"		"	"	
trans-1,2-Dichloroethene	ND	1.0	µg/m3	"	"		"	"	
Ethyl Acetate	ND	1.0	µg/m3	"	"		"	"	
Ethylbenzene	1.0	1.0	µg/m3	"	"		"	"	
Freon 11	3.2	1.0	µg/m3	"	"		"	"	
Freon 12	2.3	1.0	µg/m3	"	"		"	"	
Freon 113	ND	1.0	µg/m3	"	"		"	"	
Isopropylbenzene	ND	1.0	µg/m3	"	"		"	"	
4-Isopropyltoluene	ND	2.5	µg/m3	"	"		"	"	
Methylene chloride	ND	1.0	µg/m3	"	"		"	"	
Naphthalene	ND	1.0	µg/m3	"	"		"	"	
n-Propylbenzene	ND	1.0	µg/m3	"	"		"	"	
Styrene	ND	1.0	µg/m3	"	"		"	"	
1,1,1,2-Tetrachloroethane	ND	1.0	µg/m3	"	"		"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	µg/m3	"	"		"	"	
Tetrachloroethene	ND	1.0	µg/m3	"	"		"	"	
Toluene	2.9	1.0	µg/m3	"	"		"	"	

Jones Environmental, Inc.



Colby Wakeman  
Lab Director

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Farallon Consulting  
27 Mauchly Suite 213  
Irvine, CA 92618

Project: 5355 E. Airport Drive  
Project Number: 1071-080  
Project Manager: Kathy Lehnus

Reported  
12/22/22 11:54

**SVP-20**  
JEI220368-01(Soil Gas)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organic Compounds by EPA TO-15</b>									
1,1,1-Trichloroethane	ND	1.0	µg/m3	1	QC2212085		12/19/22	EPA TO-15	
1,1,2-Trichloroethane	ND	1.0	µg/m3	"	"		"	"	
Trichloroethene	ND	1.0	µg/m3	"	"		"	"	
1,2,4-Trimethylbenzene	ND	1.0	µg/m3	"	"		"	"	
1,3,5-Trimethylbenzene	ND	1.0	µg/m3	"	"		"	"	
Vinyl Chloride	ND	1.0	µg/m3	"	"		"	"	
m+p-Xylene	4.7	1.0	µg/m3	"	"		"	"	
o-Xylene	ND	1.0	µg/m3	"	"		"	"	
MTBE	ND	1.0	µg/m3	"	"		"	"	
Ethyl-tert-butylether	ND	1.0	µg/m3	"	"		"	"	
Di-isopropylether	ND	1.0	µg/m3	"	"		"	"	
tert-amylmethylether	ND	1.0	µg/m3	"	"		"	"	
1,1-DFA (LCC)	ND	10.0	µg/m3	"	"		"	"	

*Surrogate: 4-Bromofluorobenzene*      100.68 %      80 - 120

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Colby Wakeman  
Lab Director

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Farallon Consulting  
 27 Mauchly Suite 213  
 Irvine, CA 92618

Project: 5355 E. Airport Drive  
 Project Number: 1071-080  
 Project Manager: Kathy Lehnus

Reported  
 12/22/22 11:54

**SVP-21**  
 JEI220368-02(Soil Gas)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatiles Organic Compounds by EPA TO-15</b>									
Benzene	ND	1.0	µg/m3	1	QC2212085		12/19/22	EPA TO-15	
Bromodichloromethane	ND	1.0	µg/m3	"	"		"	"	
Bromoform	ND	1.0	µg/m3	"	"		"	"	
1,3-Butadiene	ND	1.0	µg/m3	"	"		"	"	
n-Butylbenzene	ND	1.0	µg/m3	"	"		"	"	
sec-Butylbenzene	ND	1.0	µg/m3	"	"		"	"	
tert-Butylbenzene	ND	1.0	µg/m3	"	"		"	"	
Carbon tetrachloride	ND	1.0	µg/m3	"	"		"	"	
Chlorobenzene	ND	1.0	µg/m3	"	"		"	"	
Chloroform	ND	1.0	µg/m3	"	"		"	"	
Carbon Disulfide	ND	1.0	µg/m3	"	"		"	"	
Cyclohexane	ND	1.0	µg/m3	"	"		"	"	
Dibromochloromethane	ND	1.0	µg/m3	"	"		"	"	
1,2-Dibromoethane (EDB)	ND	1.0	µg/m3	"	"		"	"	
1,4-Dioxane	ND	1.0	µg/m3	"	"		"	"	
1,2-Dichlorobenzene	ND	1.0	µg/m3	"	"		"	"	
1,3-Dichlorobenzene	ND	1.0	µg/m3	"	"		"	"	
1,4-Dichlorobenzene	ND	1.0	µg/m3	"	"		"	"	
1,1-Dichloroethane	ND	1.0	µg/m3	"	"		"	"	
1,2-Dichloroethane	ND	1.0	µg/m3	"	"		"	"	
1,1-Dichloroethene	ND	1.0	µg/m3	"	"		"	"	
cis-1,2-Dichloroethene	ND	1.0	µg/m3	"	"		"	"	
trans-1,2-Dichloroethene	ND	1.0	µg/m3	"	"		"	"	
Ethyl Acetate	ND	1.0	µg/m3	"	"		"	"	
Ethylbenzene	ND	1.0	µg/m3	"	"		"	"	
Freon 11	2.6	1.0	µg/m3	"	"		"	"	
Freon 12	2.6	1.0	µg/m3	"	"		"	"	
Freon 113	ND	1.0	µg/m3	"	"		"	"	
Isopropylbenzene	ND	1.0	µg/m3	"	"		"	"	
4-Isopropyltoluene	ND	2.5	µg/m3	"	"		"	"	
Methylene chloride	ND	1.0	µg/m3	"	"		"	"	
Naphthalene	ND	1.0	µg/m3	"	"		"	"	
n-Propylbenzene	ND	1.0	µg/m3	"	"		"	"	
Styrene	ND	1.0	µg/m3	"	"		"	"	
1,1,1,2-Tetrachloroethane	ND	1.0	µg/m3	"	"		"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	µg/m3	"	"		"	"	
Tetrachloroethene	3.5	1.0	µg/m3	"	"		"	"	
Toluene	1.6	1.0	µg/m3	"	"		"	"	

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**SVP-21**  
JEI220368-02(Soil Gas)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organic Compounds by EPA TO-15</b>									
1,1,1-Trichloroethane	ND	1.0	µg/m3	1	QC2212085		12/19/22	EPA TO-15	
1,1,2-Trichloroethane	ND	1.0	µg/m3	"	"		"	"	
Trichloroethene	ND	1.0	µg/m3	"	"		"	"	
1,2,4-Trimethylbenzene	ND	1.0	µg/m3	"	"		"	"	
1,3,5-Trimethylbenzene	ND	1.0	µg/m3	"	"		"	"	
Vinyl Chloride	ND	1.0	µg/m3	"	"		"	"	
m+p-Xylene	3.0	1.0	µg/m3	"	"		"	"	
o-Xylene	1.4	1.0	µg/m3	"	"		"	"	
MTBE	ND	1.0	µg/m3	"	"		"	"	
Ethyl-tert-butylether	ND	1.0	µg/m3	"	"		"	"	
Di-isopropylether	ND	1.0	µg/m3	"	"		"	"	
tert-amylmethylether	ND	1.0	µg/m3	"	"		"	"	
1,1-DFA (LCC)	ND	10.0	µg/m3	"	"		"	"	

*Surrogate: 4-Bromofluorobenzene*      *100.71 %*      *80 - 120*

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**SVP-22**  
 JEI220368-03(Soil Gas)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatiles Organic Compounds by EPA TO-15</b>									
Benzene	ND	1.0	µg/m3	1	QC2212085		12/19/22	EPA TO-15	
Bromodichloromethane	ND	1.0	µg/m3	"	"		"	"	
Bromoform	ND	1.0	µg/m3	"	"		"	"	
1,3-Butadiene	ND	1.0	µg/m3	"	"		"	"	
n-Butylbenzene	ND	1.0	µg/m3	"	"		"	"	
sec-Butylbenzene	ND	1.0	µg/m3	"	"		"	"	
tert-Butylbenzene	ND	1.0	µg/m3	"	"		"	"	
Carbon tetrachloride	ND	1.0	µg/m3	"	"		"	"	
Chlorobenzene	ND	1.0	µg/m3	"	"		"	"	
Chloroform	ND	1.0	µg/m3	"	"		"	"	
Carbon Disulfide	ND	1.0	µg/m3	"	"		"	"	
Cyclohexane	19.0	1.0	µg/m3	"	"		"	"	
Dibromochloromethane	ND	1.0	µg/m3	"	"		"	"	
1,2-Dibromoethane (EDB)	ND	1.0	µg/m3	"	"		"	"	
1,4-Dioxane	ND	1.0	µg/m3	"	"		"	"	
1,2-Dichlorobenzene	ND	1.0	µg/m3	"	"		"	"	
1,3-Dichlorobenzene	ND	1.0	µg/m3	"	"		"	"	
1,4-Dichlorobenzene	ND	1.0	µg/m3	"	"		"	"	
1,1-Dichloroethane	ND	1.0	µg/m3	"	"		"	"	
1,2-Dichloroethane	ND	1.0	µg/m3	"	"		"	"	
1,1-Dichloroethene	ND	1.0	µg/m3	"	"		"	"	
cis-1,2-Dichloroethene	ND	1.0	µg/m3	"	"		"	"	
trans-1,2-Dichloroethene	ND	1.0	µg/m3	"	"		"	"	
Ethyl Acetate	ND	1.0	µg/m3	"	"		"	"	
Ethylbenzene	2.6	1.0	µg/m3	"	"		"	"	
Freon 11	1.3	1.0	µg/m3	"	"		"	"	
Freon 12	2.5	1.0	µg/m3	"	"		"	"	
Freon 113	ND	1.0	µg/m3	"	"		"	"	
Isopropylbenzene	ND	1.0	µg/m3	"	"		"	"	
4-Isopropyltoluene	ND	2.5	µg/m3	"	"		"	"	
Methylene chloride	ND	1.0	µg/m3	"	"		"	"	
Naphthalene	ND	1.0	µg/m3	"	"		"	"	
n-Propylbenzene	ND	1.0	µg/m3	"	"		"	"	
Styrene	ND	1.0	µg/m3	"	"		"	"	
1,1,1,2-Tetrachloroethane	ND	1.0	µg/m3	"	"		"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	µg/m3	"	"		"	"	
Tetrachloroethene	2.6	1.0	µg/m3	"	"		"	"	
Toluene	4.9	1.0	µg/m3	"	"		"	"	

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**SVP-22**  
JEI220368-03(Soil Gas)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organic Compounds by EPA TO-15</b>									
1,1,1-Trichloroethane	ND	1.0	µg/m3	1	QC2212085		12/19/22	EPA TO-15	
1,1,2-Trichloroethane	ND	1.0	µg/m3	"	"		"	"	
Trichloroethene	ND	1.0	µg/m3	"	"		"	"	
1,2,4-Trimethylbenzene	ND	1.0	µg/m3	"	"		"	"	
1,3,5-Trimethylbenzene	ND	1.0	µg/m3	"	"		"	"	
Vinyl Chloride	ND	1.0	µg/m3	"	"		"	"	
m+p-Xylene	11.5	1.0	µg/m3	"	"		"	"	
o-Xylene	ND	1.0	µg/m3	"	"		"	"	
MTBE	ND	1.0	µg/m3	"	"		"	"	
Ethyl-tert-butylether	ND	1.0	µg/m3	"	"		"	"	
Di-isopropylether	ND	1.0	µg/m3	"	"		"	"	
tert-amylmethylether	ND	1.0	µg/m3	"	"		"	"	
1,1-DFA (LCC)	ND	10.0	µg/m3	"	"		"	"	

*Surrogate: 4-Bromofluorobenzene*      98.16 %      80 - 120

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 Project Manager: Kathy Lehnus

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**SVP-23**  
 JEI220368-04(Soil Gas)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Volatiles Organic Compounds by EPA TO-15**

Benzene	ND	1.0	µg/m3	1	QC2212085		12/19/22	EPA TO-15	
Bromodichloromethane	ND	1.0	µg/m3	"	"		"	"	
Bromoform	ND	1.0	µg/m3	"	"		"	"	
1,3-Butadiene	ND	1.0	µg/m3	"	"		"	"	
n-Butylbenzene	ND	1.0	µg/m3	"	"		"	"	
sec-Butylbenzene	ND	1.0	µg/m3	"	"		"	"	
tert-Butylbenzene	ND	1.0	µg/m3	"	"		"	"	
Carbon tetrachloride	ND	1.0	µg/m3	"	"		"	"	
Chlorobenzene	ND	1.0	µg/m3	"	"		"	"	
Chloroform	ND	1.0	µg/m3	"	"		"	"	
Carbon Disulfide	ND	1.0	µg/m3	"	"		"	"	
Cyclohexane	1.3	1.0	µg/m3	"	"		"	"	
Dibromochloromethane	ND	1.0	µg/m3	"	"		"	"	
1,2-Dibromoethane (EDB)	ND	1.0	µg/m3	"	"		"	"	
1,4-Dioxane	ND	1.0	µg/m3	"	"		"	"	
1,2-Dichlorobenzene	ND	1.0	µg/m3	"	"		"	"	
1,3-Dichlorobenzene	ND	1.0	µg/m3	"	"		"	"	
1,4-Dichlorobenzene	ND	1.0	µg/m3	"	"		"	"	
1,1-Dichloroethane	ND	1.0	µg/m3	"	"		"	"	
1,2-Dichloroethane	ND	1.0	µg/m3	"	"		"	"	
1,1-Dichloroethene	ND	1.0	µg/m3	"	"		"	"	
cis-1,2-Dichloroethene	ND	1.0	µg/m3	"	"		"	"	
trans-1,2-Dichloroethene	ND	1.0	µg/m3	"	"		"	"	
Ethyl Acetate	ND	1.0	µg/m3	"	"		"	"	
Ethylbenzene	ND	1.0	µg/m3	"	"		"	"	
Freon 11	1.3	1.0	µg/m3	"	"		"	"	
Freon 12	2.1	1.0	µg/m3	"	"		"	"	
Freon 113	ND	1.0	µg/m3	"	"		"	"	
Isopropylbenzene	ND	1.0	µg/m3	"	"		"	"	
4-Isopropyltoluene	ND	2.5	µg/m3	"	"		"	"	
Methylene chloride	ND	1.0	µg/m3	"	"		"	"	
Naphthalene	ND	1.0	µg/m3	"	"		"	"	
n-Propylbenzene	ND	1.0	µg/m3	"	"		"	"	
Styrene	ND	1.0	µg/m3	"	"		"	"	
1,1,1,2-Tetrachloroethane	ND	1.0	µg/m3	"	"		"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	µg/m3	"	"		"	"	
Tetrachloroethene	ND	1.0	µg/m3	"	"		"	"	
Toluene	1.6	1.0	µg/m3	"	"		"	"	

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 Lab Director

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**SVP-23**  
JEI220368-04(Soil Gas)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organic Compounds by EPA TO-15</b>									
1,1,1-Trichloroethane	ND	1.0	µg/m3	1	QC2212085		12/19/22	EPA TO-15	
1,1,2-Trichloroethane	ND	1.0	µg/m3	"	"		"	"	
Trichloroethene	ND	1.0	µg/m3	"	"		"	"	
1,2,4-Trimethylbenzene	4.6	1.0	µg/m3	"	"		"	"	
1,3,5-Trimethylbenzene	ND	1.0	µg/m3	"	"		"	"	
Vinyl Chloride	ND	1.0	µg/m3	"	"		"	"	
m+p-Xylene	4.1	1.0	µg/m3	"	"		"	"	
o-Xylene	ND	1.0	µg/m3	"	"		"	"	
MTBE	ND	1.0	µg/m3	"	"		"	"	
Ethyl-tert-butylether	ND	1.0	µg/m3	"	"		"	"	
Di-isopropylether	ND	1.0	µg/m3	"	"		"	"	
tert-amylmethylether	ND	1.0	µg/m3	"	"		"	"	
1,1-DFA (LCC)	ND	10.0	µg/m3	"	"		"	"	

*Surrogate: 4-Bromofluorobenzene*      100.82 %      80 - 120

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**SVP-24**  
 JEI220368-05(Soil Gas)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatiles Organic Compounds by EPA TO-15</b>									
Benzene	ND	1.0	µg/m3	1	QC2212085		12/19/22	EPA TO-15	
Bromodichloromethane	ND	1.0	µg/m3	"	"		"	"	
Bromoform	ND	1.0	µg/m3	"	"		"	"	
1,3-Butadiene	ND	1.0	µg/m3	"	"		"	"	
n-Butylbenzene	ND	1.0	µg/m3	"	"		"	"	
sec-Butylbenzene	ND	1.0	µg/m3	"	"		"	"	
tert-Butylbenzene	ND	1.0	µg/m3	"	"		"	"	
Carbon tetrachloride	ND	1.0	µg/m3	"	"		"	"	
Chlorobenzene	ND	1.0	µg/m3	"	"		"	"	
Chloroform	ND	1.0	µg/m3	"	"		"	"	
Carbon Disulfide	ND	1.0	µg/m3	"	"		"	"	
Cyclohexane	ND	1.0	µg/m3	"	"		"	"	
Dibromochloromethane	ND	1.0	µg/m3	"	"		"	"	
1,2-Dibromoethane (EDB)	ND	1.0	µg/m3	"	"		"	"	
1,4-Dioxane	ND	1.0	µg/m3	"	"		"	"	
1,2-Dichlorobenzene	ND	1.0	µg/m3	"	"		"	"	
1,3-Dichlorobenzene	ND	1.0	µg/m3	"	"		"	"	
1,4-Dichlorobenzene	ND	1.0	µg/m3	"	"		"	"	
1,1-Dichloroethane	ND	1.0	µg/m3	"	"		"	"	
1,2-Dichloroethane	ND	1.0	µg/m3	"	"		"	"	
1,1-Dichloroethene	ND	1.0	µg/m3	"	"		"	"	
cis-1,2-Dichloroethene	ND	1.0	µg/m3	"	"		"	"	
trans-1,2-Dichloroethene	ND	1.0	µg/m3	"	"		"	"	
Ethyl Acetate	ND	1.0	µg/m3	"	"		"	"	
Ethylbenzene	ND	1.0	µg/m3	"	"		"	"	
Freon 11	1.1	1.0	µg/m3	"	"		"	"	
Freon 12	2.8	1.0	µg/m3	"	"		"	"	
Freon 113	ND	1.0	µg/m3	"	"		"	"	
Isopropylbenzene	ND	1.0	µg/m3	"	"		"	"	
4-Isopropyltoluene	ND	2.5	µg/m3	"	"		"	"	
Methylene chloride	ND	1.0	µg/m3	"	"		"	"	
Naphthalene	ND	1.0	µg/m3	"	"		"	"	
n-Propylbenzene	ND	1.0	µg/m3	"	"		"	"	
Styrene	ND	1.0	µg/m3	"	"		"	"	
1,1,1,2-Tetrachloroethane	ND	1.0	µg/m3	"	"		"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	µg/m3	"	"		"	"	
Tetrachloroethene	5.7	1.0	µg/m3	"	"		"	"	
Toluene	ND	1.0	µg/m3	"	"		"	"	

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**SVP-24**  
JEI220368-05(Soil Gas)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organic Compounds by EPA TO-15</b>									
1,1,1-Trichloroethane	ND	1.0	µg/m3	1	QC2212085		12/19/22	EPA TO-15	
1,1,2-Trichloroethane	ND	1.0	µg/m3	"	"		"	"	
Trichloroethene	ND	1.0	µg/m3	"	"		"	"	
1,2,4-Trimethylbenzene	ND	1.0	µg/m3	"	"		"	"	
1,3,5-Trimethylbenzene	ND	1.0	µg/m3	"	"		"	"	
Vinyl Chloride	ND	1.0	µg/m3	"	"		"	"	
m+p-Xylene	ND	1.0	µg/m3	"	"		"	"	
o-Xylene	ND	1.0	µg/m3	"	"		"	"	
MTBE	ND	1.0	µg/m3	"	"		"	"	
Ethyl-tert-butylether	ND	1.0	µg/m3	"	"		"	"	
Di-isopropylether	ND	1.0	µg/m3	"	"		"	"	
tert-amylmethylether	ND	1.0	µg/m3	"	"		"	"	
1,1-DFA (LCC)	ND	10.0	µg/m3	"	"		"	"	

*Surrogate: 4-Bromofluorobenzene*      100.49 %      80 - 120

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 Project Manager: Kathy Lehnus

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**SVP-26**  
 JEI220368-06(Soil Gas)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatiles Organic Compounds by EPA TO-15</b>									
Benzene	ND	1.0	µg/m3	1	QC2212085		12/19/22	EPA TO-15	
Bromodichloromethane	ND	1.0	µg/m3	"	"		"	"	
Bromoform	ND	1.0	µg/m3	"	"		"	"	
1,3-Butadiene	ND	1.0	µg/m3	"	"		"	"	
n-Butylbenzene	ND	1.0	µg/m3	"	"		"	"	
sec-Butylbenzene	ND	1.0	µg/m3	"	"		"	"	
tert-Butylbenzene	ND	1.0	µg/m3	"	"		"	"	
Carbon tetrachloride	ND	1.0	µg/m3	"	"		"	"	
Chlorobenzene	ND	1.0	µg/m3	"	"		"	"	
Chloroform	ND	1.0	µg/m3	"	"		"	"	
Carbon Disulfide	1.5	1.0	µg/m3	"	"		"	"	
Cyclohexane	2.8	1.0	µg/m3	"	"		"	"	
Dibromochloromethane	ND	1.0	µg/m3	"	"		"	"	
1,2-Dibromoethane (EDB)	ND	1.0	µg/m3	"	"		"	"	
1,4-Dioxane	ND	1.0	µg/m3	"	"		"	"	
1,2-Dichlorobenzene	ND	1.0	µg/m3	"	"		"	"	
1,3-Dichlorobenzene	ND	1.0	µg/m3	"	"		"	"	
1,4-Dichlorobenzene	ND	1.0	µg/m3	"	"		"	"	
1,1-Dichloroethane	ND	1.0	µg/m3	"	"		"	"	
1,2-Dichloroethane	ND	1.0	µg/m3	"	"		"	"	
1,1-Dichloroethene	ND	1.0	µg/m3	"	"		"	"	
cis-1,2-Dichloroethene	ND	1.0	µg/m3	"	"		"	"	
trans-1,2-Dichloroethene	ND	1.0	µg/m3	"	"		"	"	
Ethyl Acetate	ND	1.0	µg/m3	"	"		"	"	
Ethylbenzene	1.8	1.0	µg/m3	"	"		"	"	
Freon 11	1.1	1.0	µg/m3	"	"		"	"	
Freon 12	8.9	1.0	µg/m3	"	"		"	"	
Freon 113	ND	1.0	µg/m3	"	"		"	"	
Isopropylbenzene	ND	1.0	µg/m3	"	"		"	"	
4-Isopropyltoluene	ND	2.5	µg/m3	"	"		"	"	
Methylene chloride	ND	1.0	µg/m3	"	"		"	"	
Naphthalene	ND	1.0	µg/m3	"	"		"	"	
n-Propylbenzene	ND	1.0	µg/m3	"	"		"	"	
Styrene	ND	1.0	µg/m3	"	"		"	"	
1,1,1,2-Tetrachloroethane	ND	1.0	µg/m3	"	"		"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	µg/m3	"	"		"	"	
Tetrachloroethene	60.2	1.0	µg/m3	"	"		"	"	
Toluene	4.4	1.0	µg/m3	"	"		"	"	

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Colby Wakeman  
 Lab Director

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27 Mauchly Suite 213  
Irvine, CA 92618

Project: 5355 E. Airport Drive  
Project Number: 1071-080  
Project Manager: Kathy Lehnus

Reported  
12/22/22 11:54

**SVP-26**  
JEI220368-06(Soil Gas)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organic Compounds by EPA TO-15</b>									
1,1,1-Trichloroethane	ND	1.0	µg/m3	1	QC2212085		12/19/22	EPA TO-15	
1,1,2-Trichloroethane	ND	1.0	µg/m3	"	"		"	"	
Trichloroethene	ND	1.0	µg/m3	"	"		"	"	
1,2,4-Trimethylbenzene	ND	1.0	µg/m3	"	"		"	"	
1,3,5-Trimethylbenzene	ND	1.0	µg/m3	"	"		"	"	
Vinyl Chloride	ND	1.0	µg/m3	"	"		"	"	
m+p-Xylene	6.6	1.0	µg/m3	"	"		"	"	
o-Xylene	3.2	1.0	µg/m3	"	"		"	"	
MTBE	ND	1.0	µg/m3	"	"		"	"	
Ethyl-tert-butylether	ND	1.0	µg/m3	"	"		"	"	
Di-isopropylether	ND	1.0	µg/m3	"	"		"	"	
tert-amylmethylether	ND	1.0	µg/m3	"	"		"	"	
1,1-DFA (LCC)	ND	10.0	µg/m3	"	"		"	"	

*Surrogate: 4-Bromofluorobenzene*      99.26 %      80 - 120

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Lab Director

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 Irvine, CA 92618

Project: 5355 E. Airport Drive  
 Project Number: 1071-080  
 Project Manager: Kathy Lehnus

Reported  
 12/22/22 11:54

**SVP-25**  
 JEI220368-07(Soil Gas)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatiles Organic Compounds by EPA TO-15</b>									
Benzene	ND	1.0	µg/m3	1	QC2212085		12/19/22	EPA TO-15	
Bromodichloromethane	ND	1.0	µg/m3	"	"		"	"	
Bromoform	ND	1.0	µg/m3	"	"		"	"	
1,3-Butadiene	ND	1.0	µg/m3	"	"		"	"	
n-Butylbenzene	ND	1.0	µg/m3	"	"		"	"	
sec-Butylbenzene	ND	1.0	µg/m3	"	"		"	"	
tert-Butylbenzene	ND	1.0	µg/m3	"	"		"	"	
Carbon tetrachloride	ND	1.0	µg/m3	"	"		"	"	
Chlorobenzene	ND	1.0	µg/m3	"	"		"	"	
Chloroform	ND	1.0	µg/m3	"	"		"	"	
Carbon Disulfide	ND	1.0	µg/m3	"	"		"	"	
Cyclohexane	1.0	1.0	µg/m3	"	"		"	"	
Dibromochloromethane	ND	1.0	µg/m3	"	"		"	"	
1,2-Dibromoethane (EDB)	ND	1.0	µg/m3	"	"		"	"	
1,4-Dioxane	ND	1.0	µg/m3	"	"		"	"	
1,2-Dichlorobenzene	ND	1.0	µg/m3	"	"		"	"	
1,3-Dichlorobenzene	ND	1.0	µg/m3	"	"		"	"	
1,4-Dichlorobenzene	ND	1.0	µg/m3	"	"		"	"	
1,1-Dichloroethane	ND	1.0	µg/m3	"	"		"	"	
1,2-Dichloroethane	ND	1.0	µg/m3	"	"		"	"	
1,1-Dichloroethene	ND	1.0	µg/m3	"	"		"	"	
cis-1,2-Dichloroethene	ND	1.0	µg/m3	"	"		"	"	
trans-1,2-Dichloroethene	ND	1.0	µg/m3	"	"		"	"	
Ethyl Acetate	ND	1.0	µg/m3	"	"		"	"	
Ethylbenzene	ND	1.0	µg/m3	"	"		"	"	
Freon 11	1.1	1.0	µg/m3	"	"		"	"	
Freon 12	4.7	1.0	µg/m3	"	"		"	"	
Freon 113	ND	1.0	µg/m3	"	"		"	"	
Isopropylbenzene	ND	1.0	µg/m3	"	"		"	"	
4-Isopropyltoluene	ND	2.5	µg/m3	"	"		"	"	
Methylene chloride	ND	1.0	µg/m3	"	"		"	"	
Naphthalene	ND	1.0	µg/m3	"	"		"	"	
n-Propylbenzene	ND	1.0	µg/m3	"	"		"	"	
Styrene	ND	1.0	µg/m3	"	"		"	"	
1,1,1,2-Tetrachloroethane	ND	1.0	µg/m3	"	"		"	"	
1,1,2,2-Tetrachloroethane	ND	1.0	µg/m3	"	"		"	"	
Tetrachloroethene	13.0	1.0	µg/m3	"	"		"	"	
Toluene	ND	1.0	µg/m3	"	"		"	"	

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Colby Wakeman  
 Lab Director

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Farallon Consulting  
27 Mauchly Suite 213  
Irvine, CA 92618

Project: 5355 E. Airport Drive  
Project Number: 1071-080  
Project Manager: Kathy Lehnus

Reported  
12/22/22 11:54

**SVP-25**  
JEI220368-07(Soil Gas)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Volatile Organic Compounds by EPA TO-15</b>									
1,1,1-Trichloroethane	ND	1.0	µg/m3	1	QC2212085		12/19/22	EPA TO-15	
1,1,2-Trichloroethane	ND	1.0	µg/m3	"	"		"	"	
Trichloroethene	ND	1.0	µg/m3	"	"		"	"	
1,2,4-Trimethylbenzene	ND	1.0	µg/m3	"	"		"	"	
1,3,5-Trimethylbenzene	ND	1.0	µg/m3	"	"		"	"	
Vinyl Chloride	ND	1.0	µg/m3	"	"		"	"	
m+p-Xylene	1.4	1.0	µg/m3	"	"		"	"	
o-Xylene	ND	1.0	µg/m3	"	"		"	"	
MTBE	ND	1.0	µg/m3	"	"		"	"	
Ethyl-tert-butylether	ND	1.0	µg/m3	"	"		"	"	
Di-isopropylether	ND	1.0	µg/m3	"	"		"	"	
tert-amylmethylether	ND	1.0	µg/m3	"	"		"	"	
1,1-DFA (LCC)	ND	10.0	µg/m3	"	"		"	"	

*Surrogate: 4-Bromofluorobenzene*      *100.81 %*      *80 - 120*

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Lab Director

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27 Mauchly Suite 213  
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Project: 5355 E. Airport Drive  
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Project Manager: Kathy Lehnus

Reported  
12/22/22 11:54

**Volatile Organic Compounds by EPA TO-15 - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	%REC Limits	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-------------	-------

**Batch QC2212085 - EPA TO-15**

**LCS 1**

Benzene	0.472	1.0	%	0.5		94	70 - 130			
Chlorobenzene	0.453	1.0	%	0.5		91	70 - 130			
1,1-Dichloroethene	0.427	1.0	%	0.5		85	70 - 130			
cis-1,2-Dichloroethene	0.540	1.0	%	0.5		108	70 - 130			
Ethylbenzene	0.469	1.0	%	0.5		94	70 - 130			
Tetrachloroethene	0.504	1.0	%	0.5		101	70 - 130			
Toluene	0.451	1.0	%	0.5		90	70 - 130			
1,1,1-Trichloroethane	0.453	1.0	%	0.5		91	70 - 130			
Trichloroethene	0.497	1.0	%	0.5		99	70 - 130			
1,2,4-Trimethylbenzene	0.506	1.0	%	0.5		101	70 - 130			
Vinyl chloride	0.476	1.0	%	0.5		95	70 - 130			

Surrogate: 4-Bromofluorobenzene 97.10 % 80 - 120

**LCSD 1**

Benzene	0.474	1.0	%	0.5		95		0.42		
Chlorobenzene	0.476	1.0	%	0.5		95		4.92		
1,1-Dichloroethene	0.434	1.0	%	0.5		87		1.81		
cis-1,2-Dichloroethene	0.551	1.0	%	0.5		110		2.05		
Ethylbenzene	0.452	1.0	%	0.5		90		3.69		
Tetrachloroethene	0.570	1.0	%	0.5		114		12.29		
Toluene	0.456	1.0	%	0.5		91		0.95		
1,1,1-Trichloroethane	0.449	1.0	%	0.5		90		0.86		
Trichloroethene	0.494	1.0	%	0.5		99		0.61		
1,2,4-Trimethylbenzene	0.456	1.0	%	0.5		91		10.40		
Vinyl chloride	0.433	1.0	%	0.5		87		9.64		

Surrogate: 4-Bromofluorobenzene 98.48 % 80 - 120

**Method Blank 1**

Benzene	ND	1.0		µg/m3						
Bromodichloromethane	ND	1.0		µg/m3						

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Colby Wakeman  
Lab Director

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 27 Mauchly Suite 213  
 Irvine, CA 92618

Project: 5355 E. Airport Drive  
 Project Number: 1071-080  
 Project Manager: Kathy Lehnus

Reported  
 12/22/22 11:54

**Volatile Organic Compounds by EPA TO-15 - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	%REC Limits	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-------------	-------

**Batch QC2212085 - EPA TO-15**

**Method Blank 1**

Bromoform	ND	1.0	µg/m3							
1,3-Butadiene	ND	1.0	µg/m3							
n-Butylbenzene	ND	1.0	µg/m3							
sec-Butylbenzene	ND	1.0	µg/m3							
tert-Butylbenzene	ND	1.0	µg/m3							
Carbon tetrachloride	ND	1.0	µg/m3							
Chlorobenzene	ND	1.0	µg/m3							
Chloroform	ND	1.0	µg/m3							
Carbon Disulfide	ND	1.0	µg/m3							
Cyclohexane	ND	1.0	µg/m3							
Dibromochloromethane	ND	1.0	µg/m3							
1,2-Dibromoethane (EDB)	ND	1.0	µg/m3							
1,4-Dioxane	ND	1.0	µg/m3							
1,2-Dichlorobenzene	ND	1.0	µg/m3							
1,3-Dichlorobenzene	ND	1.0	µg/m3							
1,4-Dichlorobenzene	ND	1.0	µg/m3							
1,1-Dichloroethane	ND	1.0	µg/m3							
1,2-Dichloroethane	ND	1.0	µg/m3							
1,1-Dichloroethene	ND	1.0	µg/m3							
cis-1,2-Dichloroethene	ND	1.0	µg/m3							
trans-1,2-Dichloroethene	ND	1.0	µg/m3							
Ethyl Acetate	ND	1.0	µg/m3							
Ethylbenzene	ND	1.0	µg/m3							
Freon 11	ND	1.0	µg/m3							
Freon 12	ND	1.0	µg/m3							
Freon 113	ND	1.0	µg/m3							
Isopropylbenzene	ND	1.0	µg/m3							
4-Isopropyltoluene	ND	2.5	µg/m3							
Methylene chloride	ND	1.0	µg/m3							
Naphthalene	ND	1.0	µg/m3							
n-Propylbenzene	ND	1.0	µg/m3							
Styrene	ND	1.0	µg/m3							
1,1,1,2-Tetrachloroethane	ND	1.0	µg/m3							
1,1,2,2-Tetrachloroethane	ND	1.0	µg/m3							
Tetrachloroethene	ND	1.0	µg/m3							
Toluene	ND	1.0	µg/m3							
1,1,1-Trichloroethane	ND	1.0	µg/m3							

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Colby Wakeman  
 Lab Director

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Farallon Consulting  
27 Mauchly Suite 213  
Irvine, CA 92618

Project: 5355 E. Airport Drive  
Project Number: 1071-080  
Project Manager: Kathy Lehnus

Reported  
12/22/22 11:54

**Volatile Organic Compounds by EPA TO-15 - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	%REC Limits	Notes
<b>Batch QC2212085 - EPA TO-15</b>										
<b>Method Blank 1</b>										
1,1,2-Trichloroethane	ND	1.0	µg/m3							
Trichloroethene	ND	1.0	µg/m3							
1,2,4-Trimethylbenzene	ND	1.0	µg/m3							
1,3,5-Trimethylbenzene	ND	1.0	µg/m3							
Vinyl Chloride	ND	1.0	µg/m3							
m+p-Xylene	ND	1.0	µg/m3							
o-Xylene	ND	1.0	µg/m3							
MTBE	ND	1.0	µg/m3							
Ethyl-tert-butylether	ND	1.0	µg/m3							
Di-isopropylether	ND	1.0	µg/m3							
tert-amylmethylether	ND	1.0	µg/m3							
1,1-DFA (LCC)	ND	10.0	µg/m3							

*Surrogate: 4-Bromofluorobenzene*      100.85 %      80 - 120

Jones Environmental, Inc.



Colby Wakeman  
Lab Director

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27 Mauchly Suite 213  
Irvine, CA 92618

Project: 5355 E. Airport Drive  
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Project Manager: Kathy Lehnus

Reported  
12/22/22 11:54

#### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry  
RPD Relative Percent Difference  
E Estimated Concentration; concentration exceeds calibration range.  
LCC Leak Check Compound  
MDL Compound Reported to Method Detection Limit

---

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Colby Wakeman  
Lab Director

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# Air Chain-of-Custody Record

Client: **FARALLON CONSULTING**  
 Client Address: **27 MAUCHLY SUITE 213**  
 Project Name: **5355 E. AIRPORT DRIVE**  
 Project Address: **5355 E. AIRPORT DRIVE**  
**ONTARIO, CA 9**  
 Report To: **KLEHNS @ FARALLONCONSULTING.COM**  
**JEUDELL @**  
 Email/Phone: **KATHY LEHNS** Sampler  
**JARED EUDELL** **N. MONTOY**

Date: **12/16/22**  
 Client Project #: **1071-080**  
 Turn Around Requested  
 Immediate Attention - 200%  
 Rush 24 Hours - 100%  
 Rush 48 Hours - 50%  
 Rush 72 Hours - 25%  
 Rush 96 Hours - 10%  
 Normal - No Surcharge  
 Summa Cannister Size  
 1L  6L

Purge Rate: **200** cc/min  
 Shut In Test:  / N  
 Tracer  
 n-pentane  
 n-hexane  
 n-heptane  
 Helium  
 1,1-DFA  
 \_\_\_\_\_  
 Report Options  
 EDD \_\_\_\_\_  
 EDF\* - 10% Surcharge   
 \*Global ID \_\_\_\_\_  
 Gasoline Range Organics  
 Yes  No  
 Units Requested  
 ug/m3  ug/L  ppmV

Lab Use Only  
 Jones Project #  
**JEI220368**  
 Page  
**1** of **1**

Analysis Requested  
 TO-15  
 8260B  
 Magnetic Reading (in/H<sub>2</sub>O)  
 Number of Containers

Sample ID	Date Collected	Purge Number	Purge Volume	Laboratory Sample ID	Canister ID	Cannister Start Pressure	Cannister End Pressure	Flow Rate (cc/min)	Sampling Start Time	Sampling End Time	TO-15	8260B	Magnetic Reading (in/H <sub>2</sub> O)	Number of Containers
SVP-20	12/16/22		1L	JEI 220368-01	01764	-28	-1		0842	0851	X			
SVP-21				JEI 220368-02	01609	-24	-1		0917	0926	X			
SVP-22				JEI 220368-03	01800	-29	-1		0956	1007	X			
SVP-23				JEI 220368-04	01819	-29	-1		1037	1046	X			
SVP-24				JEI 220368-05	01754	-30	-1		1124	1135	X			
SVP-26				JEI 220368-06	01820	-27	-1		1159	1207	X			
SVP-25				JEI 220368-07	01163	-28	-1		1232	1239	X			

Relinquished By (Signature):   
 Date: **12/16/22**  
 Company: **FARALLON**  
 Time: **1516**

Received By (Signature):   
 Date: **12/16/22**  
 Company: **FARALLON**  
 Time: **1516**

The delivery of samples and the signature on this Chain of Custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth



**MEDIA MANAGEMENT PLAN**

**5355 East Airport Drive  
Ontario, California 91761**

**Submitted by:  
Farallon Consulting, L.L.C.  
27 Mauchly, Suite 213  
Irvine, California 92618**

**Farallon PN: 1071-080 (Task 2)**

**For:  
Prologis, L.P.  
Pier 1, Bay 1  
San Francisco, California 94111**

February 23, 2023

Prepared by:



Jared Eudell  
Associate Scientist

Reviewed by:



Kathy Lehnus, P.G.  
Senior Geologist



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- Figure 2 Site Plan and Areas of Concern
- Figure 3 PCE in Soil Gas

## APPENDICES

- Appendix A Previous Environmental Investigations and Regulatory Documents (Excerpts)
- Appendix B DTSC Information Advisory Clean Imported Fill Material Fact Sheet
- Appendix C South Coast Air Quality Management District *South Coast AQMD Rule Book, Rule 403, Fugitive Dust*



## ACRONYMS AND ABBREVIATIONS

2016 Phase I ESA Report	<i>Phase I Environmental Site Assessment Report, The Scoular Company, 5355 East Airport Drive, Ontario, California 91761</i> dated August 18, 2016, prepared by Partner Engineering and Science, Inc. (Partner)
2016 Phase II Report	<i>Phase II Subsurface Investigation Report, 5355 East Airport Drive, Ontario, California 91761</i> dated August 16, 2016, prepared by Partner
2022 Phase I ESA Report	<i>Phase I Environmental Site Assessment Report, 5355 East Airport Drive Ontario, California 91761</i> dated January 31, 2022, prepared by Farallon Consulting, L.L.C. (Farallon)
2022 Phase I/II Report	<i>Phase I/Phase II Environmental Site Assessment Report, 5355 East Airport Drive, Ontario, California 91761</i> dated March 30, 2022, prepared by Farallon
2022 Additional Subsurface Investigation Report	<i>Additional Subsurface Investigation Report, 5355 East Airport Drive, Ontario, California</i> dated December 13, prepared by Farallon
2023 Soil Gas Report	<i>Soil Gas Investigation Report, 5355 East Airport Drive, Ontario, California</i> dated February 14, 2023, prepared by Farallon
ACM	asbestos-containing material
AST	aboveground storage tank
bgs	below ground surface
CCR	California Code of Regulations
COCs	constituents of concern
Contractor	the party appointed by Prologis, L.P. or by another party(ies) to conduct Site improvements or redevelopment
CREC	controlled recognized environmental condition
cVOCs	chlorinated volatile organic compounds
DTSC	California Department of Toxic Substances Control
DTSC-SLs	California-Modified Regional Screening Levels developed by the California Department of Toxic Substances Control Human and Ecological Risk Office in the <i>Human Health Risk Assessment (HHRA) Note Number 3, DTSC-modified Screening Levels (DTSC-SLs)</i> dated June 2020
Environmental Professional	the engineer or environmental consultant appointed by Prologis, L.P. and/or the Contractor (the party appointed by Prologis, L.P. or by



	another party(ies) to conduct Site improvements or redevelopment) to assist in monitoring environmental conditions or activities
EPA RSLs	U.S. Environmental Protection 2021 Agency Regional Screening Levels
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
Farallon	Farallon Consulting, L.L.C.
HASP	Health and Safety Plan
HREC	historical recognized environmental condition
mg/kg	milligrams per kilogram
MMP	Media Management Plan
Partner	Partner Engineering and Science, Inc.
PID	photoionization detector
potentially contaminated soil	soils exhibiting visual and/or olfactory evidence of impacts, elevated photoionization detector readings, or other evidence of impacts
Prologis	Prologis, L.P.
Proposition 65	California Safe Drinking Water and Toxic Enforcement Act of 1986
Subject Property	the property at 5355 East Airport Drive, Ontario, California
TPHd	total petroleum hydrocarbons as diesel-range organics
TPHg	total petroleum hydrocarbons as gasoline-range organics
TPHmo	total petroleum hydrocarbons as motor oil-range organics
UST	underground storage tank
ug/m <sup>3</sup>	micrograms per cubic meter
VOCs	volatile organic compounds



## 1.0 INTRODUCTION

Farallon Consulting, L.L.C. (Farallon) has prepared this Media Management Plan (MMP) on behalf of Prologis, L.P. (Prologis) for the property at 5355 East Airport Drive in Ontario, California (herein referred to as the Subject Property) (Figure 1). The purpose of this MMP is to provide protocols for managing confirmed and potentially contaminated media that may be encountered during future improvement activities involving subsurface work at the Subject Property. According to the Prologis development team and a November 16, 2021 Preliminary Site Plan – Scheme 01, the Subject Property will be redeveloped with an approximately 250,000-square-foot (footprint) warehouse that will occupy the northern and central portions of the Subject Property.

This document has been organized into the following sections:

- **Section 2, Site Description and Background**, provides a description of the Subject Property and its historical use, the general site setting, regional geology and hydrogeology, and the Subject Property regulatory status.
- **Section 3, Known Environmental Conditions**, summarizes environmental investigations previously conducted at the Subject Property, the defining regulations applicable to the Subject Property, the constituents of concern (COCs), and the areas where COCs have been detected at or are presumed to be present at concentrations exceeding the defining regulations.
- **Section 4, Media Management Plan**, presents the details of this MMP, including the requirements for communication, health and safety, and reporting; and management of soil, groundwater, stormwater, and unanticipated subsurface features/conditions.
- **Section 5, Modifications to the Media Management Plan**, presents the conditions under which modifications to this MMP may be required.
- **Section 6, Scope, Representations, and Limitations**, provides the details of these subjects under this MMP.
- **Section 7, References**, lists the documents cited in this MMP.



## 2.0 SITE DESCRIPTION AND BACKGROUND

This section provides a description of the Subject Property and its historical use, the general site setting, regional geology and hydrogeology, and the Subject Property regulatory status.

### 2.1 SITE DESCRIPTION AND HISTORICAL USE

The Subject Property consists of San Bernardino County Assessor's Parcel Numbers 0238-052-20-0000 (Eastern Parcel) and 0238-052-29-0000 (Western Parcel), totaling 14.2 acres of land.

According to previous environmental investigations for the Subject Property (described in Section 3.1), a review of historical information for the Subject Property suggested that it was primarily undeveloped through at least the late-1930s until being used for agricultural purposes between the late 1930s through the early 1970s. The Subject Property was developed as a grain processing facility in 1973. The Scoular Company (Scoular) and Verhoeven Grain Company (Verhoeven) have occupied the Subject Property since 2006 and 2008, respectively.

The Eastern Parcel is occupied by Verhoeven, a grain processing company, and contains grain storage silos, a grain mill area, and five buildings. An office and warehouse building, referred to as "Building A," is located on the southern portion of the Subject Property. The warehouse portion on the northeastern side of Building A contains a service shop for the repair of machinery related to the grain mill. Wastes stored in this area include motor oil, hydraulic oil, and gear oil, primarily related to tractor and forklift operation. A maintenance and repair shop, referred to as "Building B," is used for light tractor and forklift service. New and waste vehicle fluids are stored in a hazardous substance storage area on the southwestern interior border of Building B. Additional structures on the Eastern Parcel consist of a warehouse referred to as "Building C" on the north-central portion, used for assorted storage; and two grain storage structures on the southeastern and southwestern portions of the parcel, referred to as Buildings D and E. The property is primarily asphalt-paved, with some gravel-paved areas on the western portion of the parcel. Access to the Subject Property is gained from East Airport Drive, south of the Subject Property.

The Western Parcel is occupied by Scoular, a corn storage and distribution facility. The Scoular portion of the Subject Property contains exterior grain storage, and an office trailer that contains a small hazardous substance storage area on secondary containment used for the storage of lubrication oils and greases for equipment.

A vehicle wash-down area is present on the northeastern portion of the Subject Property, and three to four septic systems are associated with the Subject Property: two or three on the Eastern Parcel, and one on the Western Parcel. The location of the septic system on the Western Parcel could not be determined from the records reviewed. At the time of Farallon's Phase I Environmental Site Assessment activities (in 2022), a 499-gallon propane aboveground storage tank (AST), two 250-gallon diesel fuel ASTs, and a 220-gallon hydraulic oil AST were present on the Eastern Parcel. Two 12,000-gallon "fuel-storage" underground storage tanks (USTs) formerly were located on the north-central portion of the Subject Property near the grain mill area. A 12,000-gallon diesel fuel



UST formerly was located southeast of Building C. The area west of Building B was identified as the former location of one or more additional USTs.

The locations of applicable Subject Property features are shown on Figure 2.

## **2.2 GENERAL SITE SETTING**

The Subject Property is at an elevation of approximately 980 feet above mean sea level. The Subject Property topography slopes gently to the south. Regional topography generally is sloped to the south.

## **2.3 REGIONAL GEOLOGY AND HYDROGEOLOGY**

The Subject Property is situated within the San Bernadino Valley of the Peninsular Ranges Geomorphic Province in Southern California. The Peninsular Range Province extends into lower California and is bounded by the Colorado Desert to the east, the Pacific Ocean to the west and the San Gabriel and San Bernardino mountains to the north. The San Bernardino Mountains are located approximately 7-miles north of the Subject Property.

According to the *Phase II Subsurface Investigation Report, 5355 East Airport Drive, Ontario, California 91761* dated August 16, 2016 prepared by Partner, soil beneath the Site generally consists of very fine-grained silty sand from the surface to a depth of approximately 20 feet bgs (below ground surface) and transitions to very fine- to coarse-grained poorly graded sand between depths of 20 and 25 feet bgs. Groundwater was not encountered during Partner's investigation.

Soil encountered during Farallon's previous subsurface investigations was described as silty fine to medium sand to the total explored depth of 4 to 10 feet bgs, with an apparent coarse sand and gravel layer at a depth of 10 feet bgs (and as shallow as 5 feet bgs on the eastern portion of the Site at boring SB-2), and intermittent clayey sand to clay lenses approximately 1 foot thick at a depth of between 6 and 7 feet bgs (borings SVP-16 and SVP-19) and 10 to 11 feet bgs (borings SVP-12 and SVP-16). Groundwater was not encountered during drilling.

Site-specific groundwater direction and depth information was not available in the records reviewed. Based on information obtained from the previous reports and California State Water Resources Control Board (2022) GeoTracker database and topographic interpretation, groundwater beneath the Site is anticipated to be encountered at a depth of approximately 250 feet bgs, and is estimated to flow to the south.





### 3.0 KNOWN ENVIRONMENTAL CONDITIONS

This section summarizes environmental investigations previously conducted at the Subject Property, the defining regulations applicable to the Subject Property, the COCs and the areas where COCs have been detected or are presumed to be present at concentrations exceeding the defining regulations.

#### 3.1 PREVIOUS ENVIRONMENTAL INVESTIGATIONS

This section summarizes the most recent and pertinent documents related to environmental assessments previously prepared for the Subject Property, including the following (pertinent portions of the reports attached in Appendix A):

- *Phase I Environmental Site Assessment Report, The Scoular Company, 5355 East Airport Drive, Ontario, California 91761* dated August 18, 2016 prepared by Partner Engineering and Science, Inc. (Partner) (2016 Phase I ESA Report);
- *Phase II Subsurface Investigation Report, 5355 East Airport Drive, Ontario, California 91761* dated August 16, 2016 prepared by Partner (2016 Phase II Report);
- *Phase I Environmental Site Assessment Report, 5355 East Airport Drive Ontario, California 91761* dated January 31, 2022, prepared by Farallon (2022 Phase I ESA Report);
- *Phase I/Phase II Environmental Site Assessment Report, 5355 East Airport Drive, Ontario, California 91761* dated March 30, 2022, prepared by Farallon (2022 Farallon Phase I/II Report);
- *Subsurface Investigation Report, 5355 East Airport Drive, Ontario, California* dated December 13, 2022, prepared by Farallon (2022 Subsurface Investigation Report); and
- *Soil Gas Investigation Report, 5355 East Airport Drive, Ontario, California* dated February 14, 2023, prepared by Farallon (2023 Soil Gas Report).

The 2016 Phase I ESA Report findings identified four recognized environmental conditions (RECs), two historical RECs (HRECs), and four environmental issues. The four RECs relate to the status of a potential unknown UST; surficial degradation and staining of asphalt around two 250-gallon diesel fuel ASTs; staining and historical use of petroleum products and hazardous materials in maintenance areas within Buildings A and B; and potential impacts associated with the vehicle wash-down area and drainage system. The two HRECs are related to the following: the two former 12,000-gallon diesel USTs, which were removed in 1989 and received a No Further Action (NFA) determination; and one former 12,000-gallon diesel UST and associated dispenser, which were removed in 2002 and also received an NFA determination. The four environmental issues identified relate to unknown locations of two septic systems; grain processing equipment and subsurface grain conveyance systems requiring lubrication oil; railroad spurs extending onto the Subject Property that may have impacted the Subject Property with pesticides, herbicides, and oils; and potential asbestos-containing materials associated with the age of the buildings.



According to the Partner 2016 Phase II Report, 26 borings were advanced to depths between 1 and 25 feet bgs for the collection of soil and/or soil gas samples. Analytical results of soil gas samples indicated detections of volatile organic compounds (VOCs), including tetrachloroethene (PCE), trichloroethene (TCE), toluene, ethylbenzene, and xylenes. Based on tabulated data, the concentrations of these detectable results were less than the residential and commercial/industrial calculated soil gas screening levels (SGSLs) at the time of the report beneath and west of Building B; however, the concentrations of PCE and ethylbenzene exceed current commercial/industrial calculated SGSLs, as discussed in Section 3.3.

RECs identified in the Farallon 2022 Phase I ESA Report included the use of hazardous materials and a known release of VOCs at Building B, possible releases to the Building B septic system, and two former petroleum USTs at the grain mill, reported as closed by regulatory authorities with impacts left in-place. HRECs identified during the 2022 Phase I ESA included a former UST area located east of Building B (investigated in 2016 with no petroleum releases detected), and a 12,000-gallon UST and fuel dispenser located southeast of Building C (closed with regulatory oversight in 2002 with minor petroleum impacts noted in backfilled soil). The 2022 Phase I ESA Report also identified the following de minimis conditions: a vehicle wash-down area on the northeastern portion of the Subject Property, reportedly used for washing truck exteriors; two or three septic systems that received only domestic water; petroleum ASTs with secondary containment and/or no evidence of leaking; rail spurs within or along the northern property boundary; transformers with no evidence of leaking; underground grain conveyance systems; and a former brine pond located on or just north of the Subject Property that was reportedly decommissioned in 1998 with no residual pH impacts.

As part of its Phase I/II due diligence investigation, Farallon conducted soil and soil gas sampling at the Subject property in March 2022, focusing on assessing former UST areas, septic systems, and the footprint of a proposed building to evaluate the potential for vapor intrusion. The scope of work for the Phase II Environmental Site Assessment portion of the investigation included advancement of 12 borings, installation of two subslab gas probes, and installation of 10 temporary soil gas probe locations with single- or multi-depth nested gas points for collection of soil and soil gas samples. Petroleum hydrocarbons and VOCs were not detected at a concentration exceeding laboratory reporting limits in the soil samples. According to soil gas data, PCE was present at concentrations exceeding calculated industrial screening levels using the 0.03 attenuation factor in soil gas samples collected in the eastern portion of the Subject Property (proximate to Building B, former diesel UST, and vehicle washdown area with sump), and in the north-central portion of the Subject Property (proximate to two former USTs). Low concentrations of naturally occurring metals, including barium, cadmium, cobalt, chromium, copper, nickel, lead, vanadium, and zinc, were detected in two soil samples submitted for analysis; these concentrations were considerably less than screening levels.

Farallon conducted additional soil gas investigations in September and December 2022 to delineate soil gas in the footprint for the proposed building and assist with design mitigation measures for PCE in soil gas that may impact indoor air. PCE was not detected at a concentration exceeding the laboratory reporting limit in September. Although PCE was detected in December,



the maximum concentration of 60.2 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) proximate to Building B did not exceed the calculated industrial screening level of  $67 \mu\text{g}/\text{m}^3$ . The previously detected maximum concentration near this location was  $247 \mu\text{g}/\text{m}^3$  (SVP-7, March 11, 2022).

Although PCE has been documented in soil gas in the vicinity of Building B at concentrations exceeding calculated screening levels, these concentrations could not be confirmed with additional sampling rounds. Further, it is anticipated that shallow soils at the Subject Property will be reworked during redevelopment activities, potentially mitigating the potential for vapor intrusion conditions to exist.

Farallon recommended preparation of a MMP for use during redevelopment to address any unexpected impacts to soil associated with historical activities, and to address any issues related to the former brine pond, underground grain conveyance systems, septic systems, and former USTs at the Subject Property.

The locations of the features and findings discussed above are depicted on Figure 2. Pertinent portions of previous environmental investigation documents are provided in Appendix A.

### **3.2 DEFINING REGULATIONS**

The published regulatory guidelines considered applicable to the Subject Property for evaluating COCs in soil are the June 2020 California-Modified Regional Screening Levels for soil developed by the California Department of Toxic Substances Control Office of Human and Ecological Risk modified in May 2022 (DTSC-SLs) or the U.S. Environmental Protection Agency (EPA) November 2022 Regional Screening Levels (EPA RSLs) if a DTSC-SL has not been developed for a COC.

The disposition of soil removed from the Subject Property should be performed in accordance with the procedures discussed in Section 4.4, Soil Management.

### **3.3 AREAS OF CONCERN AND CONSTITUENTS OF CONCERN EXCEEDING DEFINING REGULATIONS**

Soil gas and subslab soil gas data indicate that soil gas beneath the slab at Building B, proximate to former UST areas and to the vehicle wash down area with sump, may contain PCE approaching or exceeding the calculated SGSL of  $67 \mu\text{g}/\text{m}^3$  using the 0.03 attenuation factor for industrial properties. PCE also was detected throughout the central portion of the Subject Property at concentrations less than the calculated industrial SGSL in the shallow zones assessed. One elevated concentration of PCE was detected at a depth of 10 feet bgs, which was collected on March 11, 2022 from the vicinity of the two former 12,000-gallon USTs north of the grain mill area; the shallow soil gas sample collected from this boring at 4 feet bgs did not contain PCE above the SGSL during the March or December 2022 sampling events. Soil gas data are presented on Figure 3.



Additionally, based on Farallon's review of data in the Partner 2016 Phase II Report, ethylbenzene was detected in soil gas at a concentration exceeding the EPA RSL of  $160 \mu\text{g}/\text{m}^3$  in a sample collected in the vicinity of Building B on the eastern portion of the Subject Property at a depth of 5 feet bgs. The presence of ethylbenzene in soil gas is likely related to incidental releases associated with the industrial use and appears to be isolated in nature.

Due to the historical USTs, septic systems, and underground features associated with the Subject Property, and use of petroleum products and hazardous materials, VOCs related to automotive fluids and total petroleum hydrocarbons (TPH) as gasoline range organics (TPHg), diesel-range organics (TPHd), and/or motor oil-range organics (TPHmo) may be present at the Subject Property.

Additionally, due to the current and/or historical presence of railroad tracks, a brine pond and a subsurface grain conveyance system, the potential exists for identification of additional areas of soil impacts and/or unknown subgrade features. Section 4.0 describes best practices for handling media and addressing undocumented conditions during redevelopment at the Subject Property.



## 4.0 MEDIA MANAGEMENT PLAN

This section presents the details of this MMP. This MMP was developed to provide protocols for managing media that are known to be or potentially are chemically impacted that may be encountered during future improvements or redevelopment activities conducted at the Subject Property. This MMP is applicable to all earthwork activities performed at the Subject Property. Elements of this MMP include:

- Project contacts;
- Communication requirements;
- Health and safety requirements;
- Soil management;
- Groundwater management;
- Stormwater management;
- Unanticipated subsurface conditions; and
- MMP reporting requirements.

The objective of this MMP is to minimize risk to human health, and to ensure protection of the environment during activities associated with improvements or redevelopment of the Subject Property. Before any earthwork activities commence at the Subject Property, this MMP should be made available to workers to address possible environmental risks associated with chemically impacted soil or unanticipated subsurface conditions.

### 4.1 PROJECT CONTACTS

The personnel associated with the Subject Property investigation and development of this MMP are provided in the table below. When communication pertaining to this MMP is warranted, Prologis will be contacted first.

TITLE NAME	CONTACT INFORMATION
<b>Prologis Environmental Contact</b> Gavin Polite Fisco	Office: (415) 733-9410 Email: <a href="mailto:gfisco@prologis.com">gfisco@prologis.com</a>
<b>Prologis Development Contact</b> John Carter	Office: (562) 345-9237 Email: <a href="mailto:jcarter@prologis.com">jcarter@prologis.com</a>
<b>Farallon Project Manager</b> Kathy Lehnus	Mobile: (657) 247-1304 Email: <a href="mailto:klehkus@farallonconsulting.com">klehkus@farallonconsulting.com</a>



## 4.2 COMMUNICATION REQUIREMENTS

Chemical- and petroleum-impacted soil encountered under anticipated conditions during subsurface activities conducted at the Subject Property should be managed in accordance with the procedures described in this MMP. In the event unanticipated conditions are encountered, earthwork should be stopped, and Prologis will be notified within 24 hours of discovery of such conditions; Prologis will subsequently notify the Environmental Professional. Any reuse of potentially contaminated soil to backfill excavations on the Subject Property requires prior laboratory analysis, as outlined in Section 4.4.5, On-Site Reuse of Soil and Off-Site Disposal of Soil, and subsequent written approval by Prologis. Reporting requirements related to earthwork activities are described in Section 4.8, Media Management Plan Reporting Requirements.

## 4.3 HEALTH AND SAFETY REQUIREMENTS

The Contractor or the Environmental Professional is responsible for preparing a Health and Safety Plan (HASP) for all tasks performed that require subsurface work at the Subject Property, with the exclusion of general maintenance activities (e.g., landscaping). The HASP will provide the following information:

- The health and safety considerations for the specific COCs detected or potentially present at the Subject Property;
- Personal protective equipment and monitoring requirements; and
- The physical hazards associated with the planned tasks.

The HASP will detail all planned construction activities and will describe standard safety precautions (e.g., protective gear for workers, proper soil handling techniques, etc). The HASP will describe the minimum safety measures to be implemented at the Subject Property during all activities. The Contractor or the Environmental Professional is responsible for ensuring that the safety precautions detailed in the HASP are implemented and monitored during all activities at the Subject Property.

The Contractor and the Environmental Professional will abide by all applicable federal, state, and local regulations and codes relating to health and safety and will adhere to all California Occupational Safety and Health Administration regulations contained in Title 8 of the California Code of Regulations (8 CCR), as they apply to the Subject Property activities. Applicable regulations may include but are not limited to the following:

- Injury and Illness Prevention Program (8 CCR 1509 and 3202);
- Hazardous Waste Operations and Emergency Response (8 CCR 5192);
- Hazard Communication (8 CCR 5194);
- Personal Protective Equipment (8 CCR 10);
- Respiratory Protective Equipment (8 CCR 5144);



- Control of Noise Exposure (8 CCR 5095 through 5100);
- Excavations (8 CCR 1503 and 1539 through 1547);
- Fire Prevention and Suppression Procedures (8 CCR 4848);
- Portable Fire Extinguishers (8 CCR 6151);
- Cleaning, Repairing, Servicing, and Adjusting Prime Movers, Machinery, and Equipment Lockout/Tagout (8 CCR 3314); and
- Medical Services and First Aid (8 CCR 3400).

Detected and potential chemicals in soil at the Subject Property have been identified under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) and are known to cause cancer and reproductive toxicity. Proposition 65 warnings are required if the estimated exposure to a person exceeds the California Office of Environmental Health Hazard Assessment “safe harbor level.” The safe harbor level terms for carcinogens and chemicals with reproductive end points are “no significant risk levels” and “maximum allowable dose levels,” respectively. The Contractor or Environmental Professional is responsible for conducting an independent evaluation to determine the need for Proposition 65 notifications for their workers.

If physical indications of potential contamination in soil (e.g., odor, staining) are observed during earthwork, a photoionization detector (PID) should be used to monitor air and soil for VOCs in the area where work is performed. Action levels will be established in the HASP by the Contractor or Environmental Professional. In accordance with South Coast Air Quality Management District Rule 1166, any soils exhibiting VOC concentrations exceeding 50 parts per million, as measured using a PID, will be treated as potentially contaminated soil and managed in accordance with the procedures described in this MMP.

Any equipment that has been in contact with known or potentially contaminated soil or groundwater during work conducted at the Subject Property requires decontamination before being used at another location at the Subject Property or before being removed from the Subject Property. It is recommended that dedicated equipment be used for earthwork activities conducted at the Subject Property to minimize decontamination procedures. The exterior of any vehicle that has been exposed to potentially contaminated soil requires decontamination using brooms or brushes to remove loose soil. If soil remains after brushing, the contaminated surfaces should be washed.

#### **4.4 SOIL MANAGEMENT**

This section describes the procedures for handling soil during earthwork activities conducted at the Subject Property. These procedures do not apply to routine maintenance activities such as landscaping.



#### **4.4.1 Site Access**

A fence, k-rail, or other appropriate means should be used to surround and limit access to construction areas or soil stockpiles where potentially contaminated soil is exposed.

#### **4.4.2 Soil Excavation**

A HASP prepared by the Contractor or the Environmental Professional is required for all earthwork activities conducted at the Subject Property, as specified in Section 4.3, Health and Safety Requirements. If contaminated soil is brought to the surface by grading, excavation, or trenching, provisions stipulated in California State and/or federal law will be followed. Any stockpiling or on-site reuse of excavated soil must be performed in accordance with the procedures described in this section.

#### **4.4.3 Soil Confirmation Sampling**

Soil confirmation sampling is defined as collecting soil samples at the limits of an excavation for laboratory analysis. Soil confirmation sampling typically is performed to document removal of chemically impacted soil to a specific cleanup level.

#### **4.4.4 Soil Stockpiling**

Stockpiled soil originating at the Subject Property that is suspected to be contaminated based on physical indications (e.g., odor, staining) or elevated PID readings is required to be covered at the end of each workday. Practical considerations (e.g., the size of the stockpile, weather conditions, the length of time the stockpile will remain) will be used in determining the appropriate covering method. Soil in the stockpile exhibiting physical indications (e.g., odor, staining) or elevated PID readings, will be presumed to be chemically impacted, and therefore the stockpile will be placed on an impermeable layer (e.g., Visqueen plastic sheeting), fenced, and otherwise protected and sampled as noted in Section 4.4.5, On-Site Reuse of Soil and Off-Site Disposal of Soil. Stormwater management regarding sediment runoff will be consistent with local, state, and federal rules and regulations, including those set forth by San Bernardino County. Additional measures must be taken to prevent runoff from entering storm drains leading to local creeks, rivers, and other water bodies, as outlined in Section 4.6, Stormwater Management.

#### **4.4.5 On-Site Reuse of Soil and Off-Site Disposal of Soil**

Soil stockpiled on the Subject Property that was noted with visual and/or olfactory impacts or elevated PID readings requires laboratory analysis prior to reuse at the Subject Property or off-site disposal. The frequency and specific laboratory analyses to be conducted will be established by the Environmental Professional on a case-by-case basis and approved by Prologis.

The laboratory analyses will likely include, but not be limited to, VOCs by EPA Method 8260 and TPHg, TPHd, and TPHmo by EPA Method 8015. Samples will be additionally analyzed for any additional constituents requested by the receiving facility, if applicable. Following analysis, if COCs are detected at concentrations less than the DTSC-SLs and EPA RSLs, the soil may be reused on the Subject Property at the discretion of the Environmental Professional. Soil containing





COCs at concentrations exceeding DTSC-SLs and EPA RSLs will be disposed of at a facility permitted to receive the soil for disposal.

#### **4.4.6 Off-Site Reuse of Soil**

Written approval from Prologis is required for any off-site reuse of soil generated from earthwork activities or excavated at the Subject Property. Soil intended for off-site reuse must be sampled and meet the characterization requirements outlined in Section 4.4.5, On-Site Reuse of Soil and Off-Site Disposal of Soil. The sampling frequency for soil being removed from the Subject Property will be determined by the Environmental Professional on a case-by-case basis, and by the receiving facility.

#### **4.4.7 Imported Fill Material**

Written approval from Prologis is required for any importation of fill material to the Subject Property. All imported fill is required to meet the minimum profile requirements outlined in the Department of Toxic Substances Control *Information Advisory, Clean Imported Fill Material* dated October 2001 and provided in Appendix B. The origin of and any analytical data for imported fill material must be provided to Prologis for review and approval prior to importation of fill material.

#### **4.4.8 Dust Control**

Implementation of dust-control measures to minimize dust generation is required during earthwork activities conducted at the Subject Property. Basic dust-control measures described in the *Rule 403 Dust Control Information* dated May 7, 1976, amended June 3, 2005, prepared by the South Coast Air Quality Management District, must be followed. It is the responsibility of the Contractor to ensure that the presence of dust is minimized during construction activities, and that all applicable local and state dust-control requirements are met. Should construction activities result in observable dust at the boundary of the Subject Property, enhanced control measures will be performed by the Contractor.

### **4.5 GROUNDWATER MANAGEMENT**

Because the depth to groundwater is approximately 250 feet bgs, it is unlikely that groundwater will be encountered during foreseeable future development at the Subject Property. If groundwater is encountered, it should be presumed to be contaminated and managed accordingly unless analytical testing determines otherwise. Any contact, suspected contact, or proposed contact with the water table, must be reported to Prologis, which will subsequently report it to the Environmental Professional.

### **4.6 STORMWATER MANAGEMENT**

Stormwater management regarding sediment runoff will be consistent with local, state, and federal rules and regulations. As outlined in Section 4.4.4, Soil Stockpiling, applicable stormwater pollution control measures will be implemented to prevent runoff of sediment in stormwater from flowing to nearby storm drains and from entering local creeks, rivers, and other water bodies. The



Contractor is required to obtain all necessary stormwater permits, and to implement best management practices during construction activities conducted at the Subject Property.

#### **4.7 UNANTICIPATED SUBSURFACE CONDITIONS**

It is unknown whether the locations of all utilities at the Subject Property have been identified and marked. Unknown historical features or other structures also may be present at the Subject Property and may be encountered during construction activities. Unanticipated subsurface features or conditions that may be present at the Subject Property include:

- USTs;
- Concrete vaults or slabs;
- Septic systems;
- Former oil-water separators;
- Underground piping containing chemicals;
- Buried brine pond;
- Underground equipment related to grain conveyance; and
- Chemically impacted soil.

If the Contractor encounters an unanticipated condition, the Contractor will stop work, secure the work area, and notify Prologis within 24 hours of discovery of the condition. Prologis will identify and contact the appropriate entity to respond to the unanticipated condition. The procedures that will be followed in the event that an unanticipated subsurface structure is discovered are summarized below:

- A licensed Contractor or an Environmental Professional will remove and containerize any observed residual liquid, sludge, or sediment in the subsurface structure, and will characterize the residual material(s) as required by the waste-receiving facility(ies);
- The Contractor will remove the subsurface structure in compliance with applicable laws and regulations, and under permit from and oversight by the applicable regulatory agency, if required;
- Soil removal actions will be performed in accordance with the procedures outlined in this MMP; and
- The area will be cleared after any required regulatory authorization has been obtained from the permitting agency, so work may proceed.

The Contractor will ensure that the health and safety requirements detailed in Section 4.3, Health and Safety Requirements, are met at all times, which will prepare workers for encountering unanticipated conditions during construction activities.



#### **4.8 MEDIA MANAGEMENT PLAN REPORTING REQUIREMENTS**

Any earthwork that involves chemically impacted soil, intersects groundwater, or leads to the discovery of any unanticipated condition will be documented and reported to Prologis, which will subsequently report it to the Environmental Professional. After MMP implementation activities are conducted, the Environmental Professional may document activities and prepare a report, if requested by Prologis. Minimum reporting requirements will consist of tabulated analytical results compared to unrestricted land use objectives, scaled site plans depicting sampling locations, disposal manifests, and descriptions of methods used. All activities involving removal of chemically impacted soil will be performed under the management of a California State Professional Geologist or Professional Engineer.



## **5.0 MODIFICATIONS TO THE MEDIA MANAGEMENT PLAN**

This section presents the conditions under which modifications to this MMP may be required.

This MMP has been developed based on currently known environmental conditions at the Subject Property and current applicable regulations. This MMP may require modification for reasons including but not limited to the following:

- A change in site use;
- Receipt of additional information pertaining to environmental conditions;
- Intrusive activity not addressed by this MMP;
- Updated chemical toxicity information for contaminants detected at the Subject Property;  
and
- New legal or regulatory requirements applicable to the Subject Property.



## 6.0 SCOPE, REPRESENTATIONS, AND LIMITATIONS

This section discusses the scope, representations, and limitations of this MMP.

This MMP was developed exclusively to address the chemical constituents identified or potentially present during environmental investigations of the Subject Property, as summarized in Section 3.0, Known Environmental Conditions. Other chemicals or media that may be encountered or generated during construction projects (e.g., demolition and construction debris, asphalt, concrete, asbestos-containing materials, lead-based paint) are not addressed in this MMP. If hazardous construction materials are encountered or generated, it is the responsibility of the Contractor to ensure the proper handling and disposal of such materials.

Current site conditions, laws, policies, and regulations were used to develop this MMP. No representation is made to any present or future developer or owner of the Subject Property or portions of the Subject Property with respect to future site conditions, other than those specifically identified in this document.

This MMP was prepared for the sole use of Prologis and its authorized contractors. Unless specifically agreed to in writing, all other such use is unauthorized. Any use or interpretation of or reliance on this MMP is at the sole risk of the unauthorized user, for which Farallon will bear no liability to any party, including any present or future developer, owner, Contractor, agent, occupant, consultant, Environmental Professional, or any other party owning or visiting the Subject Property or portions of the Subject Property based on or arising out of implementation of this MMP. It is expressly understood that although this MMP is intended to provide guidance and establish a framework for management of residual chemicals at the Subject Property to protect human health and the environment, it in no way creates any warranties or obligations by Farallon as to the implementation, adequacy, or success of protective measures under this MMP.



## 7.0 REFERENCES

- California Department of Toxic Substances Control (DTSC). 2001. *Information Advisory, Clean Imported Fill Material*. October.
- . 2020. Human and Ecological Risk Office (HERO). *Human Health Risk Assessment (HHRA) Note Number 3, DTSC-modified Screening Levels (DTSC-SLs)*. June.
- Farallon Consulting, L.L.C. 2021. *Phase I Environmental Site Assessment Report, 5355 East Airport Drive Ontario, California 91761*. Prepared for Prologis, L.P. January 31.
- . 2022. *Phase I/Phase II Environmental Site Assessment Report, 5355 East Airport Drive, Ontario, California 91761*. Prepared for Prologis, L.P. March 30.
- . 2022. *Subsurface Investigation Report, 5355 East Airport Drive, Ontario, California*. Prepared for Prologis, L.P. December 13, 2022.
- . 2023. *Soil Gas Investigation Report, 5355 East Airport Drive, Ontario, California*. Prepared for Prologis, L.P. February 14.
- Partner Engineering and Science, Inc. 2016a. *Phase II Subsurface Investigation Report, 5355 East Airport Drive, Ontario, California 91761*. Prepared for Prologis, L.P. August 16.
- . 2016b. *Phase I Environmental Site Assessment Report, The Scoular Company, 5355 East Airport Drive, Ontario, California 91761*. Prepared for Prologis, L.P. August 18.
- U.S. Environmental Protection Agency (EPA). 2022. Regional Screening Levels (RSLs) – Generic Tables <[Regional Screening Levels \(RSLs\) - Generic Tables | US EPA](#)>. (May.)

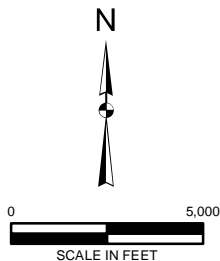
## **FIGURES**

**MEDIA MANAGEMENT PLAN**  
5355 East Airport Drive  
Ontario, California

Farallon PN: 1071-080 (Task 2)



REFERENCE: 7.5 MINUTE USGS QUADRANGLE GUASTI, CALIFORNIA, DATED 2013



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## FIGURE 1

SITE VICINITY MAP  
5355 EAST AIRPORT DRIVE  
ONTARIO, CALIFORNIA

FARALLON PN: 1071-080-002

Drawn By: Imurock

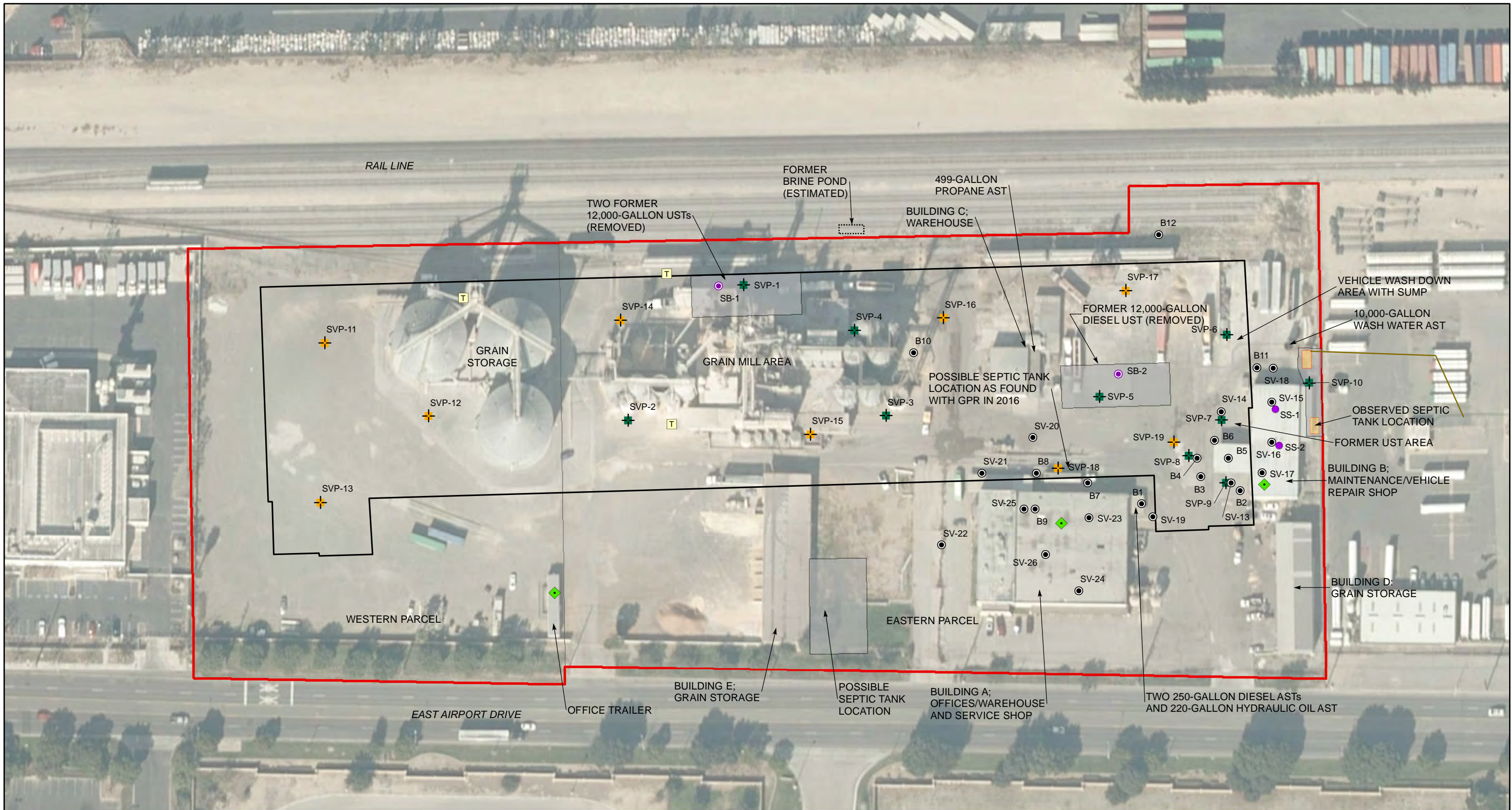
Checked By: PS

Date: 10/5/2022

Disc Reference:

Q:\Projects\1071 Prologis\080 2021 SoCal Due Diligence II\002 Airport Dr\Mapfiles\SSI\_2022-10\Figure-01\_SiteVicinity.mxd



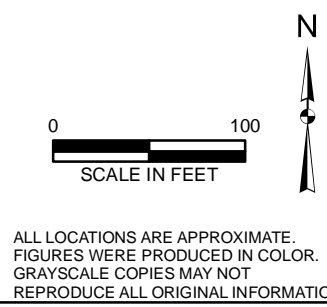


**LEGEND**

- ✦ SOIL GAS PROBE (FARALLON, SEPTEMBER 2022)
- ✦ SOIL GAS PROBE (FARALLON, MARCH 2022)
- SUBSLAB SOIL GAS PROBE (FARALLON, MARCH 2022)
- BORING (FARALLON, MARCH 2022)
- SOIL GAS PROBE (PARTNER, 2016)
- ◆ HAZARDOUS MATERIALS STORAGE AREA
- T TRANSFORMER
- FORMER SITE FEATURE
- OBSERVED TANK LOCATION
- GROUND-PENETRATING RADAR SCAN AREA
- PROPOSED BUILDING FOOTPRINT
- SITE BOUNDARY

SAN BERNARDINO COUNTY PARCEL BOUNDARY

AST = ABOVEGROUND STORAGE TANK  
 GPR = GROUND-PENETRATING RADAR  
 UST = UNDERGROUND STORAGE TANK  
 GPR SURVEY AREA - 2022 (NO UST FOUND)



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Drawn By: Imurock      Checked By: KL      Date: 2/17/2023

**FIGURE 2**

**SITE PLAN AND AREAS OF CONCERN**  
 5355 EAST AIRPORT DRIVE  
 ONTARIO, CALIFORNIA

FARALLON PN: 1071-080-002

Disc Reference:  
 Q:\Projects\1071 Prologis\080 2021 SoCal Due Diligence \11002 Airport Dr\Mapfiles\MMP\_2023-02\Figure-02\_SitePlan\_AOC.mxd



**APPENDIX A**  
**PREVIOUS ENVIRONMENTAL INVESTIGATIONS (EXPERPTS)**

MEDIA MANAGEMENT PLAN  
5355 East Airplane Drive  
Ontario, California

Farallon PN: 1071-080 (Task 2)

## PHASE II SUBSURFACE INVESTIGATION REPORT

5355 East Airport Drive  
Ontario, California 91761

August 16, 2016  
Partner Project Number: 16-163550.2

Prepared for:  
**Prologis**  
Pier 1, Bay 1  
San Francisco, California 94111



Table 1: Summary of Investigation Scope  
5355 E. Airport Drive  
Ontario, California 91761  
Partner Project Number 16-163550.2  
August 2016

Boring Identification	Location	Terminal Depth (feet bgs)	Matrix Sampled	Sampling Depths* (feet bgs)	Target Analytes
<b>B1</b>	East of ASTs	1	Soil	<b>1</b>	TPH-cc, VOCs
<b>B2</b>	West of Hazardous Waste Storage in Building B	1	Soil	<b>1</b>	TPH-cc, VOCs
<b>B3</b>	Southwest of Former USTs	25	Soil Gas	5	VOCs
			Soil	5, 10, <b>15</b> , 20, 25	TPH-cc, VOCs
<b>B4</b>	West of Former USTs	20**	Soil Gas	5	VOCs
			Soil	5, <b>10</b> , 15, 20	TPH-cc, VOCs
<b>B5</b>	East of Former USTs	25	Soil Gas	5	VOCs
			Soil	5, 10, <b>15</b> , 20, 25	TPH-cc, VOCs
<b>B6</b>	North of Former USTs	25	Soil Gas	5	VOCs
			Soil	5, <b>10</b> , 15, 20, 25	TPH-cc, VOCs
<b>B7</b>	East of Septic System	15	Soil Gas	5	VOCs
			Soil	5, <b>10</b> , 15	TPH-cc, VOCs
<b>B8</b>	Northwest of Septic System	15	Soil Gas	5	VOCs
			Soil	5, <b>10</b> , 15	TPH-cc, VOCs
<b>B9</b>	North-Central Interior of Building A Maintenance Area	1	Soil	<b>1</b>	TPH-cc, VOCs
<b>B10</b>	East of Conveyor Belt	1	Soil	<b>1</b>	TPH-cc, VOCs
<b>B11</b>	West-Central Area of Vehicle Wash Down Area	1	Soil	<b>1</b>	TPH-cc, VOCs
<b>B12</b>	Southeast Area of Railroad Spur	1	Soil	<b>1</b>	TPH-cc, VOCs
<b>SV-13</b>	Southeast of Former USTs	5	Soil Gas	5	VOCs
<b>SV-14</b>	Northeast of Former USTs	4**	Soil Gas	4	VOCs
<b>SV-15</b>	North-Central Interior of Building B Maintenance Area	5	Soil Gas	5	VOCs
<b>SV-16</b>	Central Interior of Building B	4**	Soil Gas	5	VOCs
<b>SV-17</b>	Northeast of Hazardous Waste Storage in Building B	5	Soil Gas	5	VOCs
<b>SV-18</b>	East-Central Area of Vehicle Wash Down Area	5	Soil Gas	5	VOCs
<b>SV-19</b>	Southeast of ASTs	5	Soil Gas	5	VOCs
<b>SV-20</b>	Northwest of Septic System	5	Soil Gas	5	VOCs
<b>SV-21</b>	West of Septic System	5	Soil Gas	5	VOCs
<b>SV-22</b>	West-Central Exterior Area of Building A	5	Soil Gas	5	VOCs
<b>SV-23</b>	Northeast Interior Area of Building A	5	Soil Gas	5	VOCs
<b>SV-24</b>	Southeast Interior Area of Building A	5	Soil Gas	5	VOCs
<b>SV-25</b>	Northwest Interior of Maintenance Area in Building A	5	Soil Gas	5	VOCs
<b>SV-26</b>	Southeast Interior of Maintenance Area in Building A; West of Hazardous Waste Storage	5	Soil Gas	5	VOCs

Notes:

\*Depths in **bold** analyzed for carbon chain total petroleum hydrocarbons (TPH-cc) in accordance with United States Environmental Protection Agency (EPA) Method 8015M. Depths in *italics* analyzed for volatile organic compounds (VOCs) in accordance with EPA Method 8260B (soil) or EPA Method TO-15 (soil gas).

\*\*Refusal encountered at the terminal depth

bgs = below ground surface

UST = underground storage tank

AST = aboveground storage tank

Table 2: Soil Sample TPH-cc Laboratory Results  
 5355 E. Airport Drive  
 Ontario, California 91761  
 Partner Project Number 16-163550.2  
 August 2016

EPA Method	VOCs via 8026B												
Units	mg/kg												
Analyte	Maximum SSL	B1-1	B2-1	B3-15	B4-10	B5-15	B6-10	B7-10	B8-10	B9-1	B10-1	B11-1	B12-1
<b>TPH-g</b>	<b>1,000</b>	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
<b>TPH-d</b>	<b>10,000</b>	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
<b>TPH-o</b>	<b>50,000</b>	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10

Notes:

TPH-cc = carbon chain total petroleum hydrocarbons

EPA = United States Environmental Protection Agency

TPH-g = total petroleum hydrocarbons as gasoline

TPH-d = total petroleum hydrocarbons as diesel

TPH-o = total petroleum hydrocarbons as oil

mg/kg = milligrams per kilogram

SSLs = Soil-screening levels (Los Angeles Regional Water Quality Control Board - April 27, 2004) for groundwater at a depth of between 250 and 350 feet.

< = not detected above indicated laboratory Reporting Limit (RL)

Table 3: Soil Sample VOCs Laboratory Results  
5355 E. Airport Drive  
Ontario, California 91761  
Partner Project Number 16-163550.2  
August 2016

EPA Method	VOCs via 8260B													
Units	(mg/kg)													
Analyte	Residential Soil RSL	Commercial /Industrial Soil RSL	B1-1	B2-1	B3-15	B4-10	B5-15	B6-10	B7-10	B8-10	B9-1	B10-1	B11-1	B12-1
<b>Benzene</b>	<b>0.097</b>	<b>420</b>	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
<b>Toluene</b>	<b>310</b>	<b>1300</b>	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
<b>Xylenes*</b>	<b>58</b>	<b>250</b>	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
<b>PCE</b>	<b>0.6</b>	<b>2.7</b>	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
<b>TCE*</b>	<b>0.94</b>	<b>6</b>	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
<b>Other VOCs</b>	<b>NA</b>	<b>NA</b>	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

VOCs = volatile organic compounds

EPA = United States Environmental Protection Agency

mg/kg = milligrams per kilogram

RSL = June 2016 Department of Toxic Substances Control (DTSC) Regional Screening Levels (RSLs). If DTSC RSLs do not exist, May 2016 EPA Region 9 RSLs were utilized, as denoted by \*.

PCE = tetrachloroethene

TCE = trichloroethene

< = not detected above indicated laboratory Reporting Limit (RL)

NA = not applicable

ND = not detected above laboratory RLS

Table 4: Soil Gas Sample VOCs Laboratory Results  
5355 E. Airport Drive  
Ontario, California 91761  
Partner Project Number 16-163550.2  
August 2016

EPA Method	VOCs via TO-15 (7/21/2016) or 8260B (7/29/2016)							
Units	(µg/m <sup>3</sup> )							
Sample Identification	Date Sampled	PCE	TCE*	Toluene	Ethylbenzene*	m,p-Xylene*	o-Xylene*	Other VOCs
<b>B3-SG</b>	7/21/2016	< 6.9	< 5.5	< 3.8	< 4.4	<b>460</b>	< 4.4	ND
<b>B4-SG</b>	7/21/2016	< 6.9	< 5.5	< 3.8	<b>280</b>	<b>1,100</b>	<b>400</b>	ND
<b>B5-SG</b>	7/21/2016	<b>100</b>	< 5.5	< 3.8	< 4.4	<b>12</b>	< 4.4	ND
<b>B6-SG</b>	7/21/2016	<b>68</b>	<b>26</b>	<b>4</b>	< 4.4	<b>19</b>	<b>4.6</b>	ND
<b>B7-SG</b>	7/21/2016	< 6.9	< 5.5	<b>4.9</b>	<b>11</b>	<b>73</b>	<b>19</b>	ND
<b>B8-SG</b>	7/21/2016	<b>44</b>	<b>13</b>	<b>13</b>	<b>21</b>	<b>140</b>	<b>38</b>	ND
<b>SV-13-5'</b>	7/29/2016	< 100	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>SV-14-4'</b>	7/29/2016	<b>230</b>	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>SV-15-5'</b>	7/29/2016	<b>120</b>	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>SV-16-4'</b>	7/29/2016	<b>180</b>	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>SV-17-5'</b>	7/29/2016	< 100	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>SV-18-5'</b>	7/29/2016	< 100	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>SV-19-5'</b>	7/29/2016	< 100	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>SV-20-5'</b>	7/29/2016	< 100	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>SV-21-5'</b>	7/29/2016	< 100	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>SV-22-5'</b>	7/29/2016	< 100	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>SV-23-5'</b>	7/29/2016	< 100	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>SV-24-5'</b>	7/29/2016	< 100	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>SV-25-5'</b>	7/29/2016	< 100	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>SV-26-5'</b>	7/29/2016	< 100	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>SV-26-5' Dup</b>	7/29/2016	< 100	< 100	< 1000	< 400	< 1000	< 1000	ND
<b>Residential SGSL^</b>		<b>240</b>	<b>240</b>	<b>155,000</b>	<b>550</b>	<b>50,000</b>	<b>50,000</b>	<b>NA</b>
<b>Commercial/Industrial SGSL^</b>		<b>2,100</b>	<b>3,000</b>	<b>1,300,000</b>	<b>4,900</b>	<b>440,000</b>	<b>440,000</b>	<b>NA</b>

Notes:

^Calculated soil gas screening levels (SGSLs) for soil gas concentrations were derived by dividing the June 2016 Department of Toxic Substances Control (DTSC) or May 2016 United States Environmental Protection Agency (EPA) Regional Screening Level (RSL) with an attenuation factor of 0.05 for sub-slab samples or with an attenuation factor of 0.002 for residential settings and 0.001 for commercial/industrial settings for soil gas samples deeper than sub-slab samples. DTSC RSLs are provided in the June 2016 DTSC Human and Ecological Risk Office (HERO) Human Health Risk Assessment (HHRA) Note 3. Where DTSC RSLs were not available, EPA Region 9 RSLs were utilized as denoted by \*.

VOCs = volatile organic compounds

EPA = United States Environmental Protection Agency

µg/m<sup>3</sup> = micrograms per cubic meter

PCE = tetrachloroethene

TCE = trichloroethene

Dup = replicate analysis (duplicate)

< = not detected above indicated laboratory Reporting Limit (RL)

ND = not detected above laboratory RLs

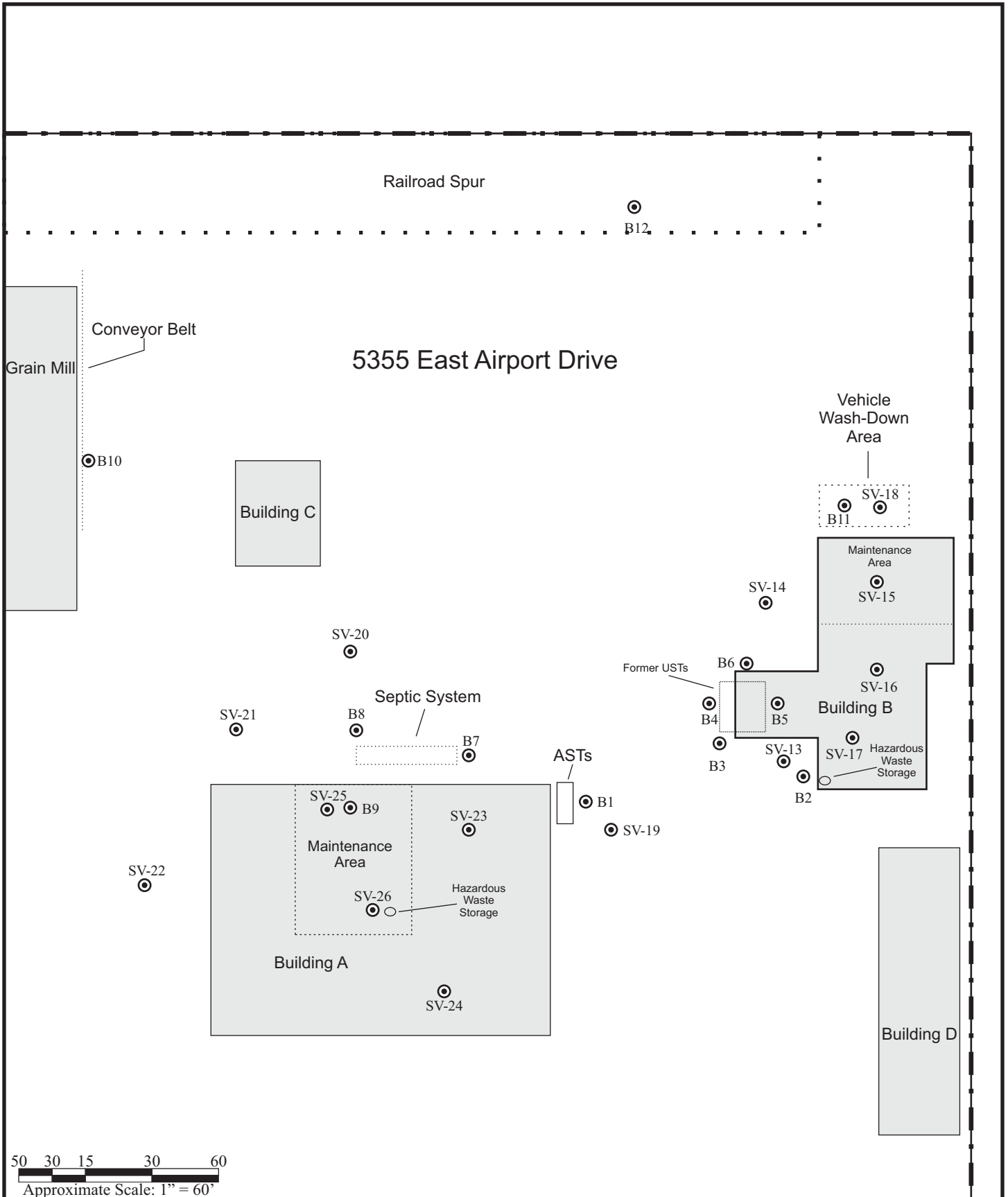
Values in **bold** exceed laboratory RLs



## FIGURES

---

**PARTNER**



**PARTNER**  
Engineering and Science, Inc.  
2154 Torrance Boulevard, Suite 200  
Torrance, California 90501  
Project Number: 16-163550.2



Subject Site  
Boring Location

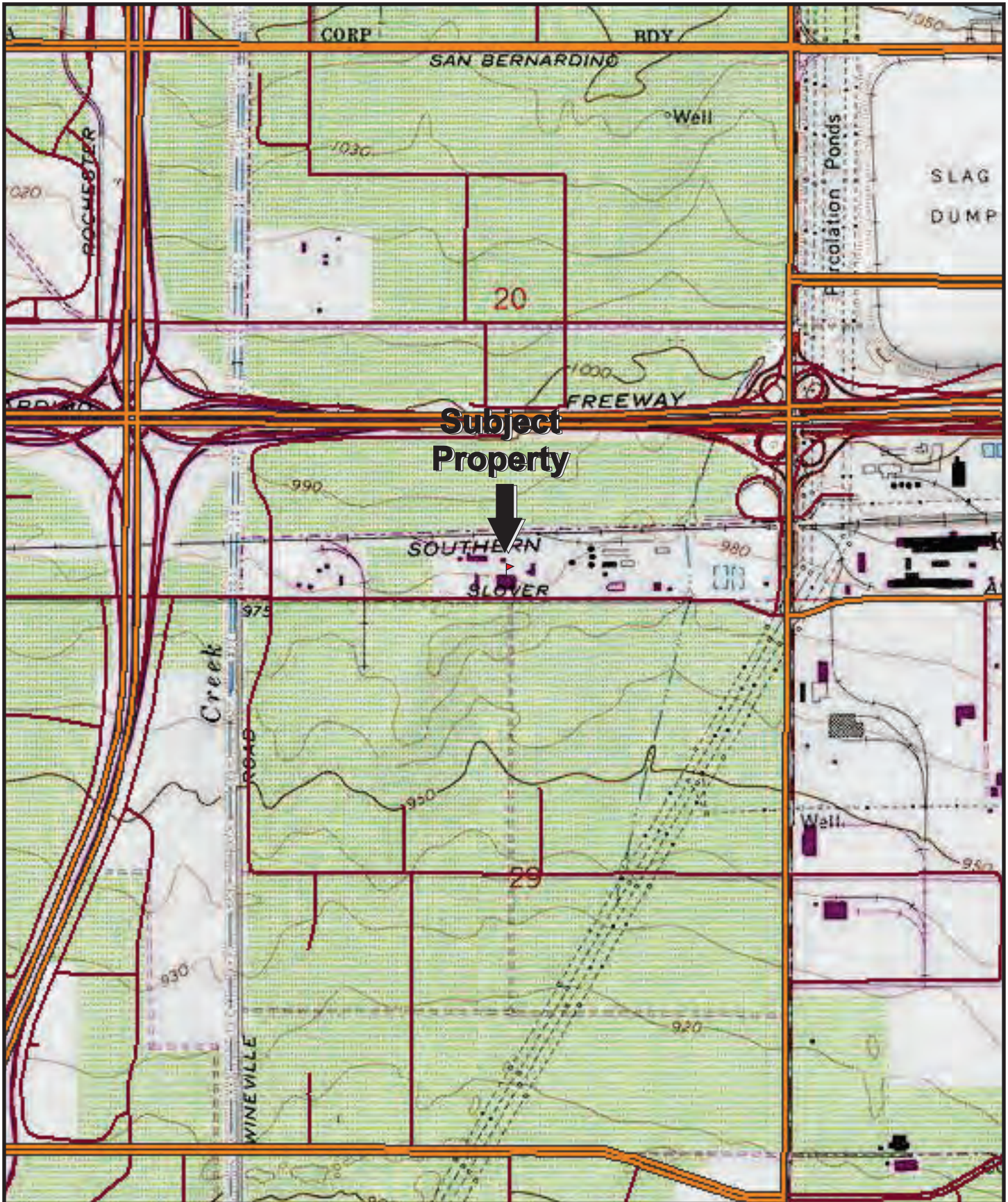
**Legend**



**Sample Location Map**

Figure	Prepared By	Date
3	B. Godbois	August 2016

5355 East Airport Drive  
Ontario, California 91761



**Subject  
Property**



**PARTNER**

Engineering and Science, Inc.  
2154 Torrance Boulevard, Suite 200  
Torrance, California 90501

Project Number: 16-163550.2

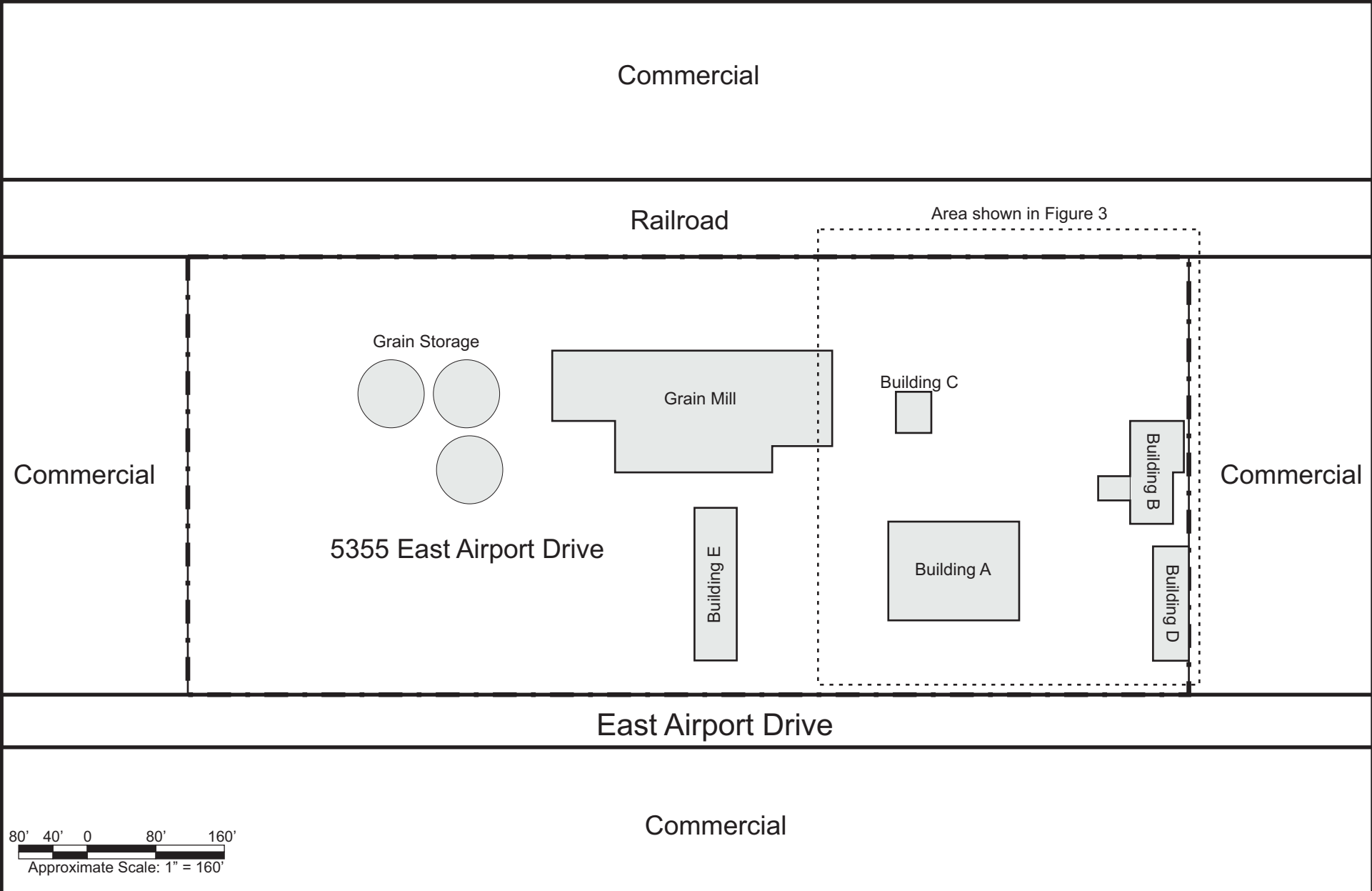


**Legend**

USGS Guasti, California  
Quadrangle  
Version: 1978 Current as of: 1981

**Topographic Map**

Figure	Prepared By	Date
2	B. Godbois	August 2016
5355 East Airport Drive Ontario, California 91761		



**PARTNER**  
Engineering and Science, Inc.  
2154 Torrance Boulevard, Suite 200  
Torrance, California 90501  
Project Number: 16-163550.2

**Legend**

Subject Site

Site Plan		
Figure	Prepared By	Date
1	B. Godbois	August 2016
5355 East Airport Drive Ontario, California 91761		



## PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT

### **The Scoular Company**

5355 East Airport Drive  
Ontario, California 91761

Report Date: August 18, 2016  
Partner Project No. 16-163550.1



Prepared for:

### **Prologis**

Pier 1, Bay 1  
San Francisco, CA 94111

August 18, 2016

Janet Frentzel  
Prologis  
Pier 1, Bay 1  
San Francisco, CA 94111

Subject: Phase I Environmental Site Assessment  
The Scoular Company  
5355 East Airport Drive  
Ontario, California 91761  
Partner Project No. 16-163550.1

Dear Ms. Frentzel:

Partner Engineering and Science, Inc. (Partner) is pleased to provide the results of the *Phase I Environmental Site Assessment* (Phase I ESA) report of the abovementioned address (the "subject property"). This assessment was performed in general conformance with the scope and limitations as detailed in the ASTM Practice E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

This assessment included a site reconnaissance as well as research and interviews with representatives of the public, property ownership, site manager, and regulatory agencies. An assessment was made, conclusions stated, and recommendations outlined.

We appreciate the opportunity to provide environmental services to you. If you have any questions concerning this report, or if we can assist you in any other matter, please contact me at (818) 337-1203.

Sincerely,



Misty Vazquez Ponce  
Principal

## EXECUTIVE SUMMARY

---

Partner Engineering and Science, Inc. (Partner) has performed a Phase I Environmental Site Assessment (ESA) in general accordance with the scope of work and limitations of ASTM Standard Practice E1527-13, the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (AAI) (40 CFR Part 312) and as set forth by the Master Services Agreement between Prologis and Partner dated April 18, 2013 for the property located at 5355 East Airport Drive in the City of Ontario, San Bernardino County, California (the "subject property"). The Phase I Environmental Site Assessment is designed to provide Prologis with an assessment concerning environmental conditions (limited to those issues identified in the report) as they exist at the subject property.

### Property Description

The subject property is located on the north side of East Airport Drive, approximately 2,700 feet west of the intersection of Etiwanda Avenue and Airport Drive, and southeast of the Interstates 10 and 15 Interchange. The subject property is located within a mixed commercial and industrial area of the City of Ontario in San Bernardino County. Please refer to the table below for further description of the subject property:

#### **Subject Property Data**

<b>Address:</b>	5355 East Airport Drive, Ontario, California
<b>Historical Address:</b>	Before development Airport Drive was known as "Slover Avenue"
<b>Property Use:</b>	Commercial/Industrial
<b>Land Acreage (Ac):</b>	14.2 Ac
<b>Number of Buildings:</b>	5
<b>Number of Floors:</b>	1
<b>Gross Building Area (SF):</b>	17,000 square foot (SF) (Office/Warehouse); 7,000 SF (Truck Repair Shop); 1,600 SF (Warehouse); 3,600 SF (Grain Storage-East); and 9,000 (Grain Storage-West)*
<b>Net Rentable Area (SF):</b>	See above
<b>Date of Construction:</b>	Between 1965 and 1973
<b>Assessor's Parcel Numbers (APNs):</b>	0238-052-020 (Parcel A); 0238-052-022 (Parcel B); 0238-052-029 (Parcel C)
<b>Type of Construction:</b>	<u>Office/Warehouse</u> - Wood-Framed (Offices & Maintenance Area) <u>Truck Repair Shop</u> - Concrete Block (Maintenance Building) <u>Warehouse</u> - Concrete Block (Warehouse) <u>Grain Storage-East</u> - Wood-Framed Corrugated Metal (Retail Grain Distribution) <u>Grain Storage-West</u> - Wood-Framed Corrugated Metal (Wholesale Grain Distribution)
<b>Current Tenants:</b>	The Scoular Company, with a sub-lease on the subject property to Verhoeven Grain Company
<b>Site Assessment Performed By:</b>	Janet Tentler of Partner
<b>Site Assessment Conducted On:</b>	June 29, 2016

\*Square footage was estimated from Google Earth

The subject property is a grain processing facility that has been in operation since at least 1973. Onsite operations consist of loading and unloading of multiple types of grain from trucks or the adjacent railyard and storing, milling, and processing for bulk and retail sale. Grain from the adjacent rail yard is off-loaded from the southern-most adjacent railroad spur and transported in an underground grain screw conveyor system to the centrally-located grain mill for processing, or to the grain silos for storage. The raw materials are steamed, rolled, and flattened into finish products. In addition to the current structures, the subject property is also improved with bulk storage silos, a vehicle wash-down area, and associated sheds. Maintenance areas are located within the Office/Warehouse and Truck Repair Shop buildings. One service pit was observed within the Truck Repair Shop building, in the maintenance area.

According to available historical sources, the subject property was formerly undeveloped as early as 1938; developed as agricultural land between 1938 and circa 1970; and developed with the current structures circa 1973. Previous owners have included Robertson Farm's Company (1946-1956) and Southern Pacific Grain Company (1956-1976), although aerial photographs indicate that no buildings/operations were present/conducted on the site until circa 1973. Since building construction, the following occupants have been located at the subject property: United Dairyman's Association (1976-1978), Chino Grain Company (1978-1985); Coast Grain Company (1985-2003); J.B. Heiskell & Co. (2008); The Scoular Company (2006-Present); and Verhoeven Grain Company (2008-Present).

The immediately surrounding properties consist of commercial warehouses to the north across the railroad tracks (Emser Tile Company at 5300 Shea Center Drive and Dorel Juvenile Group at 5400 Shea Center Drive); Kmart Distribution Center (5600 East Airport Drive) to the south across Airport Drive; Praxair (5735 East Airport Drive) to the east; and a commercial building to the west (5351 East Airport Drive).

According to a nearby investigation report (on GeoTracker), a well located approximately 4 miles to the east of the subject property contained groundwater at approximately 300 feet below ground surface (bgs). Based on topography is anticipated to flow toward the south.

## Findings

A *recognized environmental condition (REC)* refers to the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: due to release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment. The following was identified during the course of this assessment:

- Based on information provided in the Environmental Data Resources, Inc. (EDR) regulatory database report, five former petroleum underground storage tanks (USTs) were located at the subject property since 1988; however, there are inconsistencies on the number and status of the USTs found in other documentation. Partner was able to identify removal/closure records for three of the USTs. Regulatory closure letters address the removal of the three 12,000-gallon diesel USTs (discussed as HRECs below). Separately, at least one UST was suspected to be adjacent to west of the Truck Repair Building. Partner observed evidence of concrete cuts for a possible fuel dispenser in this area. Records for the fifth possible UST were not clear. Based on



the lack of information regarding the status of at least two former suspect USTs at this facility, the former USTs are considered a REC.

- The subject property is currently equipped with two 250-gallon aboveground storage tanks (ASTs) containing diesel fuel. The original installation date is unknown. Diesel fuel is used to maintain the yard equipment, such as the front-end loaders, forklifts, and the bobcats. Minor to moderate staining was observed on the asphalt surface immediately surrounding the ASTs. The asphalt appeared to be in fair to poor condition with cracks observed in the area of the staining. Based on the lack of information regarding the age and installation dates of these ASTs at this facility and site observations, the ASTs are considered a REC.
- Maintenance areas and storage of automotive-related fluids such as motor oil, waste motor oil, and antifreeze was observed in the two central buildings (Office/Warehouse and Truck Repair Shop). Petroleum staining was observed on the concrete floor within these buildings and the condition of the concrete floor was pitted in some areas. In addition, minor staining was observed adjacent to a parts washer. Based on the long-term use of these buildings for maintenance, the usage of petroleum products and hazardous materials and evidence of staining, the historical operations in these areas are considered a REC.
- A former vehicle wash-down area was observed north of the Truck Repair Shop. Partner observed a sump and pump in this area, however, were reportedly no longer in use. According to the site contact, when the vehicle wash-down area was in use, water would collect into the associated sump and "wastewater was pumped into a tank and then stored in 55-gallon drums for off-site disposal." Previous reports indicated a violation was issued by the Regional Water Quality Control Board (RWQCB), which included truck wash water flowing into the parking lot.

According to an inspection report from the RWQCB based on an inspection conducted on August 16, 2001, it was noted that housekeeping at the subject property was poor and that boiler blow-down water was being used for dust control. In April 2001, the RWQCB received an anonymous complaint stating that employees at the subject property were routinely pouring used oil into a drain located outside of the Truck Repair Shop. The RWQCB re-inspected the subject property and was told that water from the truck wash down area discharges through a filter and is pumped from a sump into a 2,810-gallon AST. Employees at the subject property stated that the tank had never been emptied. The subject property was cited with several violations at the time including: truck wash water flowing into the parking lot; storm water exceedances (December 2001); and condensate from the boiler room at the mill discharging onto the ground. Based on the use of this area as a truck wash and reported violations for past housekeeping practices, the historical operations in this area are considered a REC.

*A controlled recognized environmental condition (CREC)* refers to a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

- Partner did not identify controlled recognized environmental conditions during the course of this assessment.

A *historical recognized environmental condition (HREC)* refers to a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls. The following was identified during the course of this assessment:

- Two 12,000 gallon USTs identified as containing diesel were removed from the subject property in July 1989; available file information maps these USTs north of the mill building. In a letter dated September 4, 1998 by the San Bernardino County Fire Department, Hazardous Materials Division (SBCFD), a report prepared by Babcock & Sons, Inc. and dated July 25, 1989 was reviewed by the SBCFD. The letter indicated the "contamination remaining in the excavation is below that which is generally considered a problem and further investigation is not warranted at this time." Based on the reported sampling conducted subsequent issuance of a No Further Action (NFA) letter by SBCFD, the two former 12,000 gallon USTs removed in 1989 are considered an HREC.
- One 12,000 gallon diesel fuel UST and associated dispenser was removed from the area north of the main office/warehouse building in December 2002. Confirmation sampling was conducted beneath the UST and the stockpiled soil which was re-used for backfill of the excavation. Residual petroleum impacts were identified in the stockpiled soil. The SBCFD issued an NFA letter on January 8, 2003 for the removal of the UST and associated dispenser. Based on the removal and subsequent issue of the NFA, the former 12,000 gallon diesel UST located north of the main office building (east of the "former vegetable oil processing center") is considered an HREC.

An *environmental issue* refers to environmental concerns identified by Partner, which do not qualify as RECs; however, warrant further discussion. The following was identified during the course of this assessment:

- The site contact indicated sanitary discharges from the restrooms in the office/warehouse and truck repair shop buildings are directed to on-site septic systems. The site contact was not aware of where the septic systems were located and Partner did not observe any evidence of the septic system during the site visit. Previous reports identified two potential areas of the septic systems on a site figure; however, the prior reports also indicated the location of the septic systems were unknown. No service sinks or floor drains, other than those located in the restrooms, were observed on the subject property. Septic systems are typically of environmental concern due to the potential discharge of petroleum products or hazardous substances; however, since there were no floor drains or evidence of discharges to the septic systems other than for domestic use, the septic system(s) do not appear to be a significant environmental concern.
- The grain processing mill has been in operation since circa 1973. The processing equipment within the mill and underground conveyor systems require lubrication oil; however, no leaking or

other indications of a release were observed during the site reconnaissance. Based on site observations, the equipment use does not appear to be a significant environmental concern.

- The area north of the subject property includes several railroad lines, including rail road spurs which extend onto the subject property. Railroad lines may be of environmental concern due to the use of pesticides, herbicides and oils used for the maintenance of the rail lines, regulated railroad bedding material (slag, gravel, etc.) or chemicals leaching from treated railroad crossties. Based on the commercial nature of the subject property, the presence of the rail lines do not appear to be a significant environmental concern.
- Due to the age of the subject property buildings, there is a potential that asbestos-containing material (ACM) is present. Overall, suspect ACMs were observed in good condition and do not pose a health and safety concern to the occupants of the subject property at this time.

### **Conclusions, Opinions and Recommendations**

Partner has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-13 of 5355 East Airport Drive in the City of Ontario, San Bernardino County, California (the "subject property"). Any exceptions to, or deletions from, this practice are described in Section 1.5 of this report.

This assessment has revealed evidence of recognized environmental conditions and/or environmental issues in connection with the subject property. Based on the conclusions of this assessment, Partner recommends the following:

- A limited subsurface investigation should be conducted in order to determine the presence or absence of soil and/or groundwater contamination due to the historical use of the subject property.
- An Operations and Maintenance (O&M) Program should be implemented in order to safely manage the suspect ACMs located at the subject property.

## **FIGURES**

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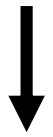
- 1 SITE LOCATION MAP**
- 2 SITE PLAN**
- 3 TOPOGRAPHIC MAP**



KEY:

Subject Site 

**FIGURE 1: SITE LOCATION MAP**  
Project No. 16-163550.1

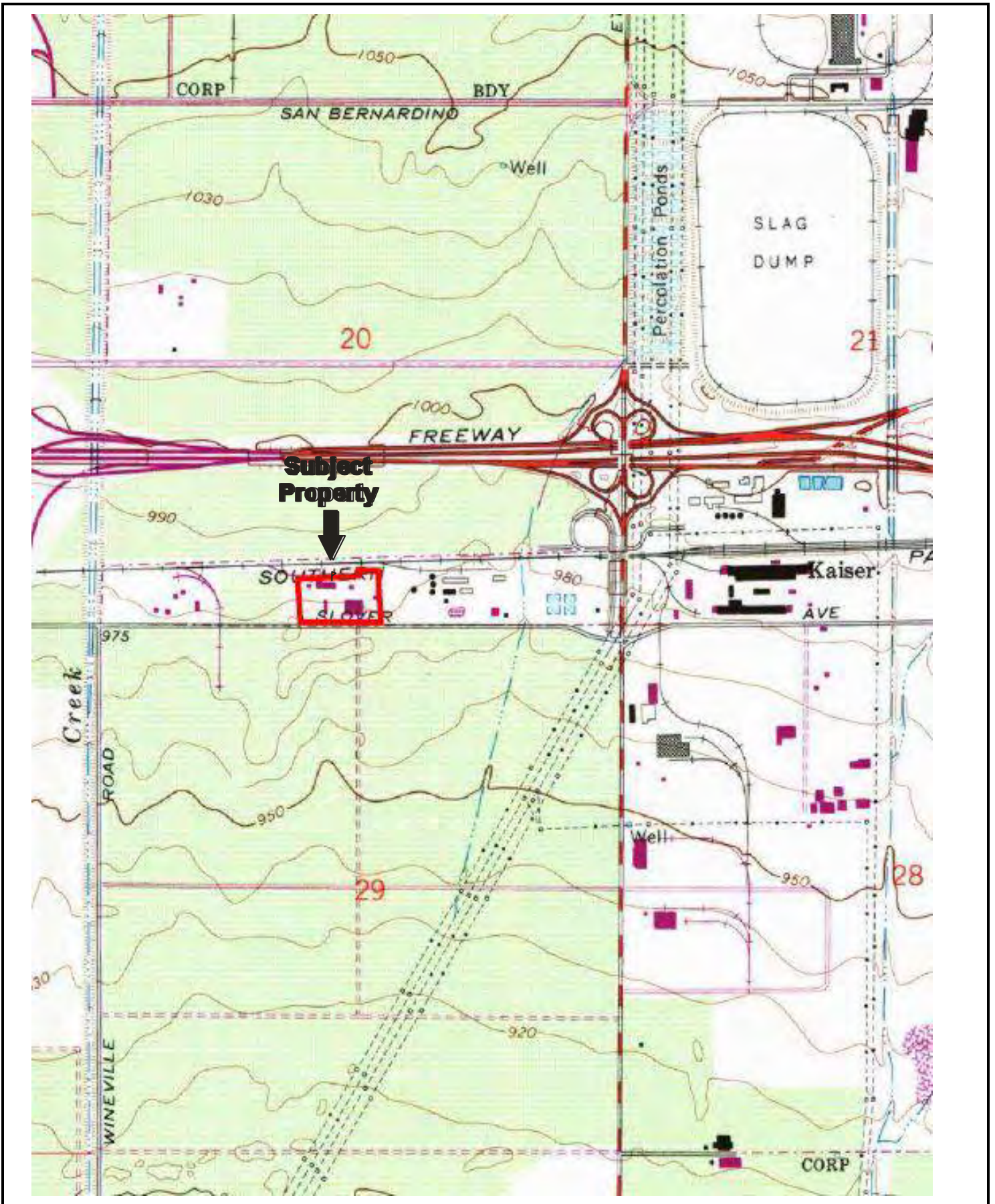


**GROUNDWATER  
FLOW**

KEY:

Subject Site 

**FIGURE 2: SITE PLAN**  
Project No.16-163550.1



USGS 7.5 Minute *Guasti, California* Quadrangle

Created: 1981

**FIGURE 3: TOPOGRAPHIC MAP**  
Project No.16-163550.1

## **APPENDIX A: SITE PHOTOGRAPHS**

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1. View of Main Building (Building A)



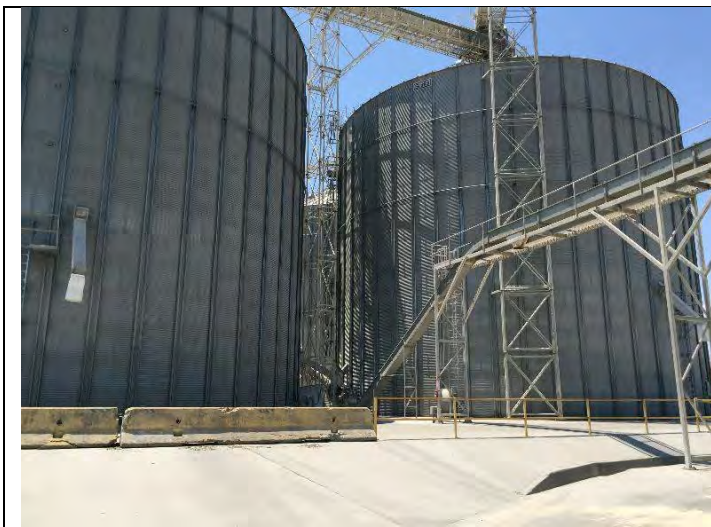
2. View of Warehouse Building (Building C)



3. View of Main Building (Building A)



4. View of Milling Area



5. View of Storage Silos



6. View of Grain Receiving Transfer Conveyor



7. View of Grain Receiving Transfer Conveyor



8. View of Storage Silos



9. View of Grain Storage (Building E)



10. View of Grain Storage (Building D)



11. View of Propane near Warehouse Building (Building C)



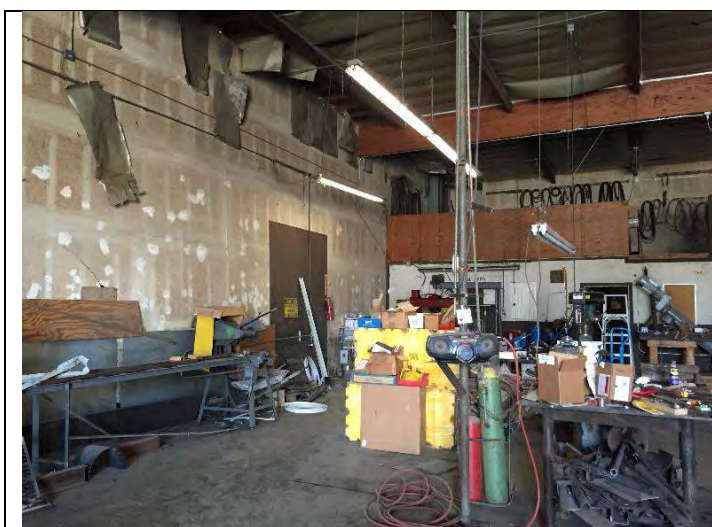
12. View of Diesel ASTs and Hydraulic Oil AST near Main Building (Building A)



13. View of Trash Dumpsters



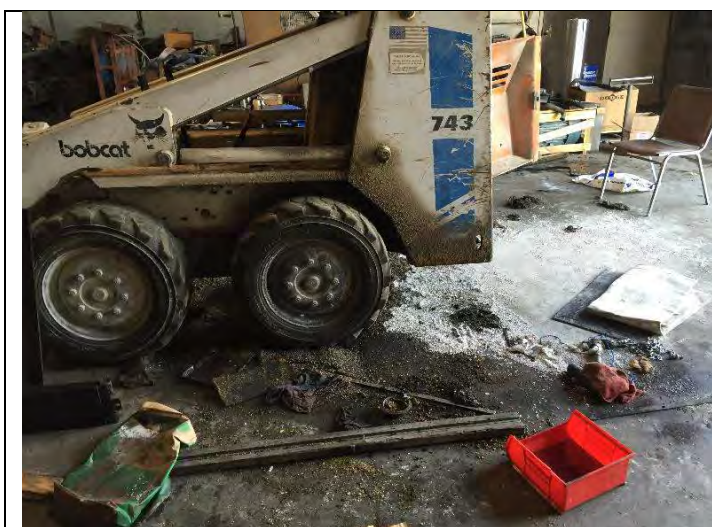
14. View of Former Vehicle Wash-Down Area



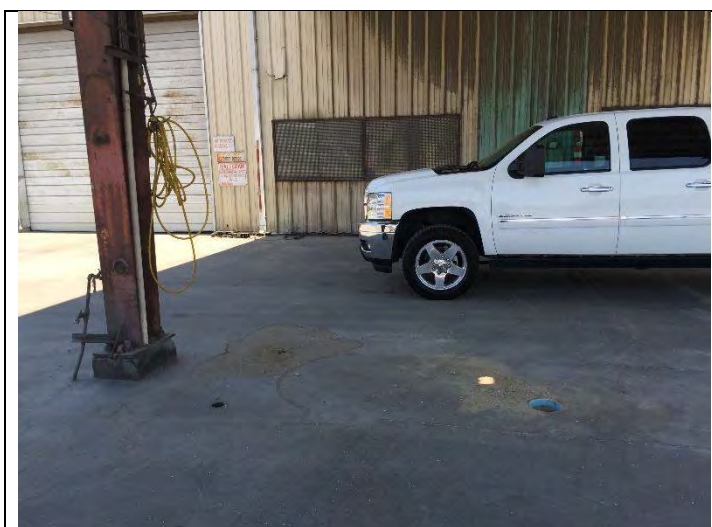
15. View of Interior of Main Building (Building A) Maintenance Area



16. View of Interior of Main Building (Building A) Maintenance Area



17. View of Interior of Main Building (Building A) Maintenance Area



18. View of reported Former UST area near Maintenance Building (Building B)



19. View of Service Pit within Building B



20. View of Waste Oil Storage within Building B



21. View of Maintenance Area within Building B



22. View of Interior Parking/Garage area within Main building (Building A)



23. View of 1 of 2 SCE Pad-Mounted Transformer labeled with No PCBs



24. View of 2 of 2 SCE Pad-Mounted Transformer labeled with No PCBs

## **APPENDIX B: HISTORICAL/REGULATORY DOCUMENTATION**

**PHASE I/PHASE II  
ENVIRONMENTAL SITE ASSESSMENT REPORT**

**5355 East Airport Drive  
Ontario, California**

**Submitted by:  
Farallon Consulting, L.L.C.  
27 Mauchly, Suite 213  
Irvine, California 92618**

**Farallon PN: 1071-080 (Task 2)**

**For:  
Prologis, Inc.  
Pier 1, Bay 1  
San Francisco, California 94111**

March 31, 2022

Prepared by:



Brant Rotnem  
Staff Geologist



Kathy Lehnus, L.E.P., P.G.  
Senior Geologist



Reviewed by:



Scott Allin, R.E.P.A.  
Principal Environmental Scientist



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## ENVIRONMENTAL PROFESSIONALS' STATEMENT

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as established in Part 312.10 of Title 40 of the Code of Federal Regulations (40 CFR 312.10) and we have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR 312.

Name Brant Rotnem  
Title Staff Geologist

Name Kathy Lehnus, L.E.P., P.G.  
Title Senior Geologist

Name Scott Allin, R.E.P.A.  
Title Principal Environmental Scientist



## EXECUTIVE SUMMARY

Farallon Consulting, L.L.C. (Farallon) has prepared this Phase I/Phase II Environmental Site Assessment (Phase I/II ESA) Report for the property at 5355 East Airport Drive in Ontario, California (herein referred to as the Site). The Phase I/II ESA was conducted by Brant Rotnem and was reviewed and approved by Kathy Lehnus and Scott Allin. All are experienced Environmental Professionals in the field of Phase I/II ESAs and related environmental investigations.

This Phase I/II ESA Report was prepared for Prologis, L.P., and its subsidiaries, affiliates, related parties (specifically including any 1031 exchange entities), successors, and assigns (Prologis) in accordance the letter regarding Proposal for Phase I Environmental Site Assessment and Media Management Plan dated December 10, 2021, from Kathy Lehnus and Scott Allin of Farallon to Julia Smith of Prologis; and the letter regarding Proposal for Subsurface Investigation, 5355 East Airport Drive, Ontario, California dated February 14, 2022, from Kathy Lehnus and Scott Allin of Farallon to Julia Smith of Prologis. The scope of work for this Phase I/II ESA is consistent with ASTM International Standard E1527-13 and E1527-21, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM E1527-13 and -21). ASTM E1527-13 is intended to assist the user in satisfying one of the requirements to qualify for protection from potential liability under the Comprehensive Environmental Response, Compensation, and Liability Act as the innocent landowner, contiguous property owner, or bona fide prospective purchaser. ASTM E1527-13 constitutes “all appropriate inquiry” into the previous ownership, uses, and environmental conditions of a property consistent with good commercial or customary practice, as defined in Section 9601(35)(B) of Title 42 of the U.S. Code.

There were no deviations from ASTM E1527-13 or -21 during this Phase I/II ESA, with the exception of additional environmental services requested by Prologis. Limiting conditions encountered during the Phase I/II ESA were the presence of vehicles parked on exterior portions of the Site that prevented Farallon from observing the entire ground surface of the Site, and the presence of equipment in the Site buildings that prevented Farallon from observing the entire interior floor surfaces. Based on information obtained from the Site representative, historical records, previous reports, and data obtained during the subsurface investigation conducted in March 2022, these limiting conditions are not expected to alter the conclusions of this report.

The purpose of the Phase I/II ESA was to identify, as practicable, recognized environmental conditions on the Site or proximate to the Site that have caused and/or may cause an adverse environmental condition. This Phase I/II ESA Report provides the results of investigation into past and present ownership and uses of the Site, consistent with good commercial and/or customary practice.

The Site consists of two parcels totaling 14.2 acres: Assessor Parcel No. 0238-052-20 (Eastern Parcel), and Assessor Parcel No. 0238-052-29 (Western Parcel). The Site is occupied by George Verhoeven Grain Inc. (dba Verhoeven Grain Inc.) and The Scoular Company, grain processing companies. Operations consist of the processing of raw grain, which is received by truck or by rail from the rail line north of the Site. The exact location of the rail line and associated spurs with



respect to the northern Site boundary could not be confirmed in available files. The raw materials are off-loaded, weighed, and transported to grain storage silos or other storage areas either by an underground auger conveyance or by dedicated on-Site vehicles. Raw grain processing operations occur at the grain mill Area, located in the north-central portion of the Site. After production, the processed grain is weighed, packaged, and loaded onto trucks for distribution.

The Site includes five buildings on the Eastern Parcel, consisting of Building A, used for office and warehouse space; Building B, used for facility maintenance with a vehicle repair shop; Building C, used as a warehouse; and Buildings D and E, used for grain storage. In addition, an office trailer with a small hazardous materials storage area is present on the southern portion of the Western Parcel. On-Site buildings are reportedly connected to septic systems; septic tanks are reportedly located southeast of Building E and potentially east of Building B, and one septic system is reportedly located on the western portion of the Site (location unknown). In 2016, a suspected septic system appears to have been located with ground-penetrating radar north of Building A, which could be in addition to or instead of previously reported septic systems. A vehicle wash-down area with sump leading to an empty 10,000-gallon wash water aboveground storage tank (AST) is located north of Building B; this system is no longer used. Historical features associated with previous operations on the Site include two former “fuel storage” 12,000-gallon underground storage tanks (USTs) at the grain mill area, one former 12,000-gallon diesel UST east of Building C, and a former UST area containing an unspecified number of former USTs west of Building B. These USTs are discussed further below. Access to the Site is gained from East Airport Drive, south of the Site. According to the San Bernardino County Assessor’s Office, the Site owner is Prologis Exchange 5355.

Historically, the Site was used as agricultural or grazing land from at least the late 1930s to the early 1970s. By 1973, the Eastern Parcel was developed with small grain storage silos and other features associated with milling operations in the grain mill area. In the 1975 aerial photograph, grain appeared to be stockpiled in the southwestern portion of the Site in Buildings A through C. By 1985, the grain storage structures, Buildings D and E, were developed. By 2002, the Site appeared in its existing configuration. The 2002 aerial photograph shows grain processing operations had expanded at the Site to the Western Parcel, which included the development of three large grain storage silos. The Site has been occupied by Verhoeven Grain Inc. from 1973 to the present; Chino Grain and Milling, Inc. in 1985; Coast Grain Company between 1990 and 2003; The Scoular Company between 2004 and the present; and JD Heistell and Company in 2009.

Adjacent properties at the time of Farallon’s site reconnaissance included a rail line to the north followed by industrial buildings occupied by home furnishing businesses Emser Tile at 5300 Shea Center Drive and Dorel Home Furnishings at 5400 Shea Center Drive; Praxair, Inc. to the east at 5735 East Airport Drive; East Airport Drive to the south followed by industrial buildings occupied by distribution businesses K-Mart Distributions at 5600 East Airport Drive and XPO Logistics, Inc. at 5200 East Airport Drive; and a Verizon facility to the west at 5351 East Airport Drive.

Historically, adjacent properties consisted primarily of undeveloped and/or agricultural land. Railroad tracks were present on the north-adjacent property from at least the early 1900s through the 1960s, when the east-adjacent property was developed with the existing industrial facility. By



the early 1990s, the south-adjacent property was developed with an industrial building. By the early 2000s, the west- and north-adjacent properties were developed with industrial buildings and have remained relatively unchanged through the present.

A brine disposal pond owned by the Union Pacific Railroad Company and used by the Coast Grain Company for boiler blow-down water was installed in 1969 and removed in 1998 to allow for the addition of a rail line north of the grain mill area. According to the letter regarding Approval of Closure Report for the Brine Disposal Pond, Coast Grain Company, Ontario, California dated September 24, 1999, from the Santa Ana Regional Water Quality Control Board (Water Board), the closure of the pond included the removal of approximately 7,500 cubic yards of salt-contaminated soil and placement of a 40-mil high-density polyethylene liner. Miscellaneous analytical data available in the Water Board file indicated that soil was analyzed for pH, with no elevated readings noted. Based on mapping provided in the Water Board file, the pond was located south of the Southern Pacific Railroad Main Line between two sets of rail spurs; it appears to be just north of the current property line. However, a survey would be required to understand the northern property line in relation to the former brine disposal pond; this is considered a data gap for this report.

*The EDR Radius Map Report with GeoCheck* prepared for the Site by Environmental Data Resources, Inc. (EDR) dated December 9, 2021 (EDR Report) identified the Site address in several databases. The Site listings generally relate to hazardous material management, air quality permit requirements associated with grain processing equipment and operations, and historical USTs. Database listings did not indicate records of a release at the Site. Farallon searched the California State Water Resources Control Board online GeoTracker database and the California Department of Toxic Substances Control online EnviroStor database for records related to the Site, but found no listings.

Farallon reviewed a Phase I ESA report dated August 18, 2016, and a Phase II Subsurface Investigation report dated August 16, 2016, prepared by Partner Engineering and Science, Inc. (Partner) for the Site (Partner 2016 Phase I Report and Partner 2016 Phase II Report, respectively). According to the Partner 2016 Phase I Report, as many as five petroleum USTs were formerly in use at the Site, which was considered a recognized environmental condition, along with truck maintenance operations, ASTs, a vehicle wash-down area, conveyor belts, and at least one septic system. According to the Partner 2016 Phase II Report, 26 borings were advanced at depths between 1 and 25 feet below ground surface for the collection of soil and/or soil gas samples. Soil samples were analyzed for total petroleum hydrocarbons (TPH) carbon chain C6-C40 by U.S. Environmental Protection Agency (EPA) Method 8015C and volatile organic compounds (VOCs) by EPA Method 8260B; and soil gas samples were analyzed for VOCs by EPA Methods TO-15 and 8260B. No detectable concentrations of VOCs or TPH carbon chain C6-C40 were present in soil samples. Analytical results of soil gas samples indicated detections of VOCs including tetrachloroethene, trichloroethene, toluene, ethylbenzene, and xylenes. The concentrations of these detectable results were less than the residential and commercial/industrial calculated soil gas screening levels (SGSL) at the time of the report beneath and west of Building B; however, concentrations of tetrachloroethene (PCE) detected in soil vapor samples collected from beneath



and west of Building B exceed current commercial/industrial calculated SGSLs. Additionally, in comparison with the “low level” ethylbenzene SGSL, the ethylbenzene concentration in one soil vapor sample from this area exceeded the calculated soil gas commercial/industrial screening level of 163 micrograms per cubic meter.

The EDR Report identified several facilities adjacent or proximate to the Site in the regulatory databases. Several of these facilities have known or suspected releases of hazardous substances to soil and/or groundwater. Based on their current regulatory status, depth to groundwater, topographic location relative to the Site, and/or relative distance from the Site, these facilities do not represent recognized environmental conditions in connection with the Site.

Prologis provided Farallon with a *Preliminary Site Plan – Scheme 01, 5355 E. Airport Drive, City of Ontario* by RGA Office of Architectural Design dated November 16, 2021, which depicted a proposed building on the northern and central portions of the Site. In March 2022, Farallon conducted soil and soil vapor sampling at the Site to assess former UST areas and septic systems, and the new building footprint for the potential for vapor intrusion issues. The scope of work for the Phase II ESA portion of this assessment included the advancement of 12 borings and installation of 10 temporary soil vapor probe locations with single- or multi-depth nested vapor points for the collection of soil and soil vapor samples. The Phase II ESA portion of this assessment was conducted on March 4 and 11, 2022.

No TPH or VOCs were detected exceeding laboratory detection limits in the soil samples collected from the Site. Low concentrations of naturally occurring metals including barium, cadmium, cobalt, chromium, copper, nickel, lead, vanadium, and zinc were detected in two soil samples submitted for analysis; these concentrations were considerably less than screening levels.

Based on subslab soil vapor data, soil vapor beneath the slab at Building B contains PCE exceeding calculated screening levels. PCE is present west of Building B at concentrations exceeding current calculated industrial screening levels using the 0.03 attenuation factor, but less than screening levels using the less conservative attenuation factors. PCE was also detected in soil vapor in central and eastern portions of the Site at concentrations less than the calculated screening levels in the shallow zones that were assessed. One concentration of PCE was detected exceeding calculated screening levels in a deeper soil vapor sample collected from the vicinity of two former 12,000-gallon USTs north of the grain mill area; the shallow soil vapor sample collected from this boring did not contain PCE exceeding calculated screening levels. The extent of PCE in soil vapor was not fully characterized.

Based on review of the Site history, including subsurface investigation reports, interviews with persons knowledgeable about the Site, reconnaissance of the Site, review of regulatory agency lists, and the completion of subsurface investigation at the Site, this Phase I/II ESA identified the following recognized environmental condition in connection with the Site:

- PCE impacts potentially associated with the use and storage of hazardous materials at Building B could contribute to vapor intrusion conditions on the Site.



In addition, Farallon identified the following historical recognized environmental conditions in association with the Site:

- Previous environmental reports note that one or more USTs were historically located west of Building B. Farallon was not able to find information regarding the UST in regulatory files, but did find some information regarding three to four diesel and unleaded gasoline USTs ranging in capacity from 4,000 to 10,000 gallons at unspecified locations at the Site preceding the presence of the three known 12,000-gallon USTs (noted in the grain mill area and southeast of Building C). In 2016, Partner conducted a subsurface investigation in this area and did not identify evidence of a petroleum release.
- In 2002, Tank Specialists of California removed a 12,000-gallon diesel steel UST and fuel dispenser mapped southeast of Building C. According to the letter regarding Soil Sampling Following the Removal of an Underground Storage Tank – Coast Grain Co., 5355 E. Airport Drive, Ontario, California dated December 18, 2002, from Advanced GeoEnvironmental, Inc., three confirmatory soil samples were collected beneath the bottom of the UST after removal, and soil samples were collected from stockpiles. The soil samples were analyzed for TPH as diesel; benzene, toluene, ethylbenzene, and xylenes; and methyl tertiary-butyl ether. Minor petroleum impacts were noted in stockpiled soil (800 milligrams per kilogram of TPH as diesel), which was reportedly used as backfill for the excavation. No constituents of concern were detected in the confirmatory soil samples collected from beneath the UST. Advanced GeoEnvironmental, Inc. recommended that San Bernardino County Fire Department (SBCFD) Hazardous Materials Division issue closure of the UST; and the letter regarding Removal of One Underground Storage Tank at Coast Grain Inc., Located at 5355 E. Airport Drive, Ontario, California dated January 8, 2002, from SBCFD was issued indicating that further investigation was not warranted.
- Based on sampling conducted as part of this Phase I/II ESA, no release was found in connection with the two 12,000-gallon “fuel storage” USTs historically located at the grain mill, which were removed from the Site in 1998. A No Further Action determination issued by SBCFD indicated that residual impacts were present, although “below that which is generally considered a problem.”

The vehicle wash-down area located north of Building B was used for washing trucks (including molasses transportation trucks) and is no longer used. According to Site personnel, only truck exteriors were washed (not engines). Given the nature of use and that wash water was routed to an AST, with no discharge, the vehicle wash-down area is considered a de minimis condition for the Site. No release was found in the vicinity of the septic tanks located east of Building B, which provides a disposal pathway for a building that is known to have used chlorinated solvents and vehicular fluids.

Because two or three potential on-Site septic systems on the Western Parcel, located north of Building A and southeast of Building E, appear to be used for domestic sewer, with limited hazardous material use in the proximity that could be introduced to the septic systems as a release pathway, the presence of those septic systems is considered a de minimis condition for the Site. Additionally, the presence of petroleum ASTs with secondary containment and/or no evidence of



leaking, rail spurs within or along the northern property boundary, transformers with no evidence of leaking, and underground grain conveyance systems are considered de minimis conditions for the Site. Further, based on the location and nature of use (boiler blow-down), the former brine pond located in the vicinity of the northern property line is also considered a de minimis condition for the Site.

At the request of Prologis, Farallon has included additional opinions and recommendations for the Site beyond those specified in ASTM E1527-13 and -21 for de minimis and recognized environmental conditions.

Based on the findings from this Phase I/II ESA, Farallon recommends preparation of a Media Management Plan for use during Site redevelopment to address any unexpected impacts to soil associated with historical activities at the Site, and to address any issues related to the former brine pond, underground grain conveyance systems, septic systems, and former USTs at the Site. Additionally, because PCE has been documented in soil vapor in the vicinity of Building B at concentrations exceeding calculated screening levels, and PCE was detected in shallow soil vapor at concentrations less than the calculated RSLs in other soil gas samples collected at the Site, the potential for vapor intrusion into the planned new Site building should be addressed. Additional investigation and characterization are recommended to delineate and design mitigation measures for PCE in soil vapor that may impact indoor air in the future building.





## 1.0 INTRODUCTION

This Phase I/II Environmental Site Assessment (Phase I/II ESA) Report was prepared by Farallon Consulting, L.L.C. (Farallon) for the property at 5355 East Airport Drive in Ontario, California (herein referred to as the Site) (Figure 1). This section discusses the project authorization, and the qualifications of the Environmental Professionals conducting and reviewing the Phase I/II ESA work. Also included in this section are the project purpose, objective, scope of services, deviations, limiting conditions, and data gaps.

### 1.1 PROJECT AUTHORIZATION

This Phase I/II ESA Report was prepared for Prologis, L.P., and its subsidiaries, affiliates, related parties (specifically including any 1031 exchange entities), successors, and assigns (Prologis) in accordance with the letter regarding Proposal for Phase I Environmental Site Assessment and Media Management Plan dated December 10, 2021, from Kathy Lehnus and Scott Allin of Farallon to Julia Smith of Prologis; and the letter regarding Proposal for Subsurface Investigation, 5355 East Airport Drive, Ontario, California dated February 14, 2022, from Kathy Lehnus and Scott Allin of Farallon to Julia Smith of Prologis. The scope of work for this Phase I/II ESA is consistent with ASTM International Standard E1527-13 and E1527-21, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM E1527-13 and -21).

### 1.2 PROFESSIONAL QUALIFICATIONS

The Phase I/II ESA was conducted by Brant Rotnem and was reviewed and approved by Kathy Lehnus and Scott Allin. All have an understanding of surface and subsurface environmental conditions and the processes used to evaluate these conditions, and the ability to develop opinions regarding conditions indicative of a release or threatened release of hazardous substances and petroleum products. These Environmental Professionals have developed and performed all appropriate inquiry, in conformance with the standards and practices set forth in Part 312 of Title 40 of the Code of Federal Regulations. The professional qualifications of Brant Rotnem, Kathy Lehnus, and Scott Allin are provided in Appendix A.

### 1.3 PROJECT PURPOSE AND OBJECTIVE

The purpose of the Phase I/II ESA was to identify, as practicable, recognized environmental conditions on the Site and within the appropriate study area that have caused and/or may cause an adverse environmental impact. ASTM E1527-13 is intended to permit a user to satisfy one of the requirements to qualify for protection from potential liability under the Comprehensive Environmental Response, Compensation, and Liability Act as the innocent landowner, contiguous property owner, or bona fide prospective purchaser. ASTM E1527-13 constitutes “all appropriate inquiry” into the previous ownership, uses, and environmental conditions of a property consistent with good commercial or customary practice, as defined in Section 9601(35)(B) of Title 42 of the U.S. Code.



The objective of the Phase I/II ESA was to perform an appropriate inquiry into past and present ownership and uses of the Site, consistent with good commercial and/or customary practice. This Phase I/II ESA Report is to be used as a risk management tool to meet all appropriate inquiry requirements and the Comprehensive Environmental Response, Compensation, and Liability Act liability defense. The Phase I/II ESA does not guarantee that there are no impacts to the Site.

For the purpose of this Phase I/II ESA Report, the term “recognized environmental condition” is defined as the presence or likely presence of any hazardous substance or petroleum product in, on, or at the Site due to releases to the environment, under conditions indicative of a release to the environment, or under conditions that pose a material threat of a future release to the environment. The term is not intended to include “de minimis conditions” that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of the applicable governmental agencies.

The term “controlled recognized environmental condition” is defined as a recognized environmental condition resulting from a past release of a hazardous substance or petroleum product that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in-place subject to implementation of required controls.

The term “historical recognized environmental condition” is defined as a past release of any hazardous substance or petroleum product that has occurred in connection with the Site and has been addressed to the satisfaction of the applicable regulatory authority, without subjecting the Site to any required controls.

#### **1.4 PROJECT SCOPE OF SERVICES**

This Phase I/II ESA Report was prepared for Prologis, L.P., and its subsidiaries, affiliates, related parties (specifically including any 1031 exchange entities), successors, and assigns (Prologis) in accordance with the letter regarding Proposal for Phase I Environmental Site Assessment and Media Management Plan dated December 10, 2021, from Kathy Lehnus and Scott Allin of Farallon to Julia Smith of Prologis; and the letter regarding Proposal for Subsurface Investigation, 5355 East Airport Drive, Ontario, California dated February 14, 2022, from Kathy Lehnus and Scott Allin of Farallon to Julia Smith of Prologis. In addition, this work was conducted in accordance with the *Master Services Agreement* between Prologis and Farallon dated August 4, 2011.

The scope of work for this Phase I/II ESA included a records review, literature research and review, site reconnaissance, interviews with individuals familiar with the Site, interviews with local governmental officials, an investigation of soil and soil vapor, and preparation of this report.

At the request of Prologis, Farallon provided additional environmental services and recommendations for further action based on the findings of the Phase I/II ESA. These services are considered non-scope items and are not required to satisfy ASTM E1527-13 and -21.



## 1.5 DEVIATIONS

There were no deviations from ASTM E1527-13 or -21 during this Phase I/II ESA, with the exception of additional environmental services requested by Prologis.

## 1.6 LIMITING CONDITIONS

Limiting conditions encountered during this Phase I/II ESA were the presence of vehicles parked on exterior portions of the Site that prevented Farallon from observing the entire ground surface of the Site, and the presence of equipment in the Site buildings that prevented Farallon from observing the entire interior floor surfaces. Based on information obtained from the Site representative, historical records, previous reports, and data obtained during the subsurface investigation conducted in March 2022, these limiting conditions are not expected to alter the conclusions of this report.

## 1.7 DATA GAPS

Data gaps may affect the ability to identify recognized environmental conditions and Farallon's ability to render opinions and conclusions for presentation in the Phase I/II ESA Report. The following data gap was identified during this Phase I/II ESA:

- George Verhoeven Grain Inc., dba Verhoeven Grain Inc. (Verhoeven), receives raw grain via a rail line north of the Site. The exact location of the rail line in relation to the northern property line has not been established in available records; part of the rail line could be located on portions of the Site. This constitutes a data gap for the Site. A land survey would be required to determine whether the rail spurs and/or a former brine pond in the area are present on the Site. If found to be located on the Site, further evaluation regarding the possible environmental issues related to rail lines, transportation of materials, and brine water disposal should be assessed.

Farallon did not identify other data gaps during this Phase I/II ESA.



## 2.0 SITE OVERVIEW

This section includes an overview of the Site location, improvements, and operations. A description of adjacent and surrounding land use also is provided.

### 2.1 SITE LOCATION

The Site is approximately 0.5 mile west of the intersection of Etiwanda Avenue and East Airport Drive, located at 5355 East Airport Drive in Ontario, San Bernardino County, California (Figure 1). The location is in an industrial area approximately 40 miles east of downtown Los Angeles and approximately 7 miles south of the San Bernardino Mountains. The nearest residential community is 1.8 mile southeast of the Site.

### 2.2 SITE DESCRIPTION

The Site consists of two parcels totaling 14.2 acres: Assessor Parcel No. 0238-052-20 (Eastern Parcel), and Assessor Parcel No. 0238-052-29 (Western Parcel).

The Eastern Parcel is occupied by Verhoeven, a grain processing company, and contains grain storage silos, a grain mill area, and five buildings. An office and warehouse building, referred to as “Building A,” is located on the southern portion of the Site. The warehouse portion on the northeastern side of Building A contains a service shop for the repair of machinery related to the grain mill. Wastes stored in this area include motor oil, hydraulic oil, and gear oil, primarily related to tractor and forklift operation. A maintenance and repair shop, referred to as “Building B,” is present on the eastern portion of the Site, and is used for light tractor and forklift service. New and waste vehicle fluids are stored in a hazardous substance storage area on the southwestern interior border of Building B. Additional structures on the Eastern Parcel consist of a warehouse referred to as “Building C” on the north-central portion, used for assorted storage; and two grain storage structures on the southeastern and southwestern portions of the parcel, referred to as Buildings D and E. The property is primarily asphalt-paved, with some gravel-paved areas on the western portion of the parcel. Access to the Site is gained from East Airport Drive, south of the Site.

The Western Parcel is occupied by The Scoular Company (Scoular), a corn storage and distribution facility. The Scoular portion of the Site contains exterior grain storage, with an office trailer that contains a small hazardous substance storage area on secondary containment used for the storage of lubrication oils and greases for equipment.

A vehicle wash-down area is present on the northeastern portion of the Site, and three to four septic systems are associated with the Site: two or three on the Eastern Parcel, and one on the Western Parcel. The location of the septic system on the Western Parcel could not be determined from the records reviewed. Additionally, aboveground storage tanks (ASTs) and three areas with former underground storage tank (USTs) are associated with the Site (detailed in Section 4.5).



Figure 2 presents a general plan map of the Site; additional details pertaining to the Site are provided in Section 8.2, Site Reconnaissance Observations. Site photographs are presented in Appendix B.

## 2.3 SITE OPERATIONS

According to the San Bernardino County Assessor's Office, the Site owner is Prologis Exchange 5355. Verhoeven has operated the Eastern Parcel as a grain processing facility since development in 1973. Raw grain, including corn and barley, is received at the facility via a rail line north of the Site (Assessor Parcel No. 0238-052-22) and distributed via conveyor belt from grain silos to Scoular on the Western Parcel; the exact location of the rail line in relation to the northern property line has not been established in the records reviewed. Raw grain product is transferred via conveyor from the Western Parcel or transloaded from rail cars via underground piping to four large storage silos in the grain mill on the Eastern Parcel.

In the grain mill, the raw grain is fed through a cleaner silo, which removes chaff, cobb pieces, and other excess matter with a water wash. The cleaned grain is gravity-fed through steam jackets, which use natural-gas-fired, boiler-generated steam to soften the product before fan-drying. After processing, the product is stored in silos for off-Site transfer via truck.

In addition to product processing at the grain mill, operations at Verhoeven consist of light tractor and forklift service in Building B. A 4- to 5-foot-deep repair pit is located in Building B that is not in use by Verhoeven. Service on tractors and forklifts includes minor repairs with use of a petroleum-based parts cleaner, and tire changes. The fleet of grain distribution trucks is not serviced on the Site, with the exception of oil changes performed by an external service technician, who reportedly collects and removes the waste oil from the Site.

A bermed truck-washing area equipped with an underground sump leading to an empty 10,000-gallon wash water AST is located north of Building B. Personnel reported that it is no longer in use, only truck exteriors were washed in this area, and no undercarriage/chassis or engine washing was conducted on the Site.

Scoular operates the Western Parcel as a grain storage and distribution facility. Raw grain product is brought onto the Site via rail to the north, and either off-loaded into trucks for direct distribution, or transloaded via underground piping to one of three grain storage silos. The storage silos use hydraulic augers to transfer the grain onto a conveyor system for processing at the Verhoeven grain mill. In addition to the storage silos, the Scoular parcel is developed with a mobile office trailer and a gravel-paved yard.

At the time of the site reconnaissance, Farallon observed hazardous materials in the warehouse in the northeastern portion of Building A, an aboveground fueling area northeast of Building A (consisting of two 250-gallon diesel ASTs and one 220-gallon hydraulic oil AST), and in Building B. Materials stored in these areas consisted of diesel, motor oil, waste oil, gasoline, grease, lubricant, gear oil, transmission oil, and parts cleaning solution. Hazardous materials consisting of



lubricating oils and greases for equipment were also stored in the office trailer on the Western Parcel.

Historical features associated with previous operations on the Site include two former petroleum 12,000-gallon USTs at the grain mill area, one former 12,000-gallon diesel UST east of Building C, and a former UST Area west of Building B. Historical operations, features, and reported septic systems are discussed further in Section 4.5. Figure 2 presents the locations of on-Site buildings and historical features.

## **2.4 ADJACENT AND SURROUNDING LAND USE**

Adjacent properties at the time of Farallon's site reconnaissance included a rail line to the north followed by industrial buildings occupied by home furnishing businesses Emser Tile at 5300 Shea Center Drive and Dorel Home Furnishings at 5400 Shea Center Drive; Praxair, Inc. to the east at 5735 East Airport Drive; East Airport Drive to the south followed by industrial buildings occupied by distribution businesses K-Mart Distributions at 5600 East Airport Drive and XPO Logistics, Inc. at 5200 East Airport Drive; and a Verizon facility to the west at 5351 East Airport Drive.

No visual evidence of recognized environmental conditions was observed on abutting or nearby properties during the site reconnaissance. Observations were restricted to areas readily observable from the Site.



### 3.0 PHYSICAL SETTING

The physical setting of the Site, including topography, geology, and hydrogeology, is described in this section. Farallon's assessment of sensitive receptors in the area also is discussed.

#### 3.1 TOPOGRAPHY

Farallon reviewed the U.S. Geological Survey (USGS) topographic maps for Guasti, California, dated 2018 and provided by Environmental Data Resources, Inc. (EDR). The maps depict the Site at an elevation of approximately 980 feet above mean sea level. Site topography slopes gently to the south. Regional topography generally is sloped to the south.

#### 3.2 GEOLOGY AND HYDROGEOLOGY

The Site is situated within the San Bernadino Valley of the Peninsular Ranges Geomorphic Province in Southern California. The Peninsular Range Province extends into lower California, and is bounded by the Colorado Desert to the east, the Pacific Ocean to the west and the San Gabriel and San Bernardino mountains to the north. The San Bernardino Mountains are located approximately 7 miles north of the Site. According to *The EDR Radius Map Report with GeoCheck* prepared for the Site by EDR dated December 9, 2021 (EDR Report), surface soil at the Site consists primarily of Delhi fine sand, which is somewhat excessively well drained.

According to the *Phase II Subsurface Investigation Report* dated August 16, 2016 by Partner Engineering and Science, Inc. (Partner) for the Site (Partner 2016 Phase II Report), soil beneath the Site generally consists of very fine grained, silty sand from the surface to depths of approximately 20 feet below ground surface (bgs) and transitions to very fine to coarse grained, poorly graded sand between depths of 20 and 25 feet bgs. Groundwater was not encountered during Partner's investigation.

Soil encountered during the Phase II ESA investigation portion of this scope of work was described as silty fine to medium sand to a total explored depth of 10 feet bgs, with an apparent coarse sand and gravel layer at 10 feet bgs (and as shallow as 5 feet bgs on the eastern portion of the Site at boring SB-2). Boring logs are attached in Appendix F. Groundwater was not encountered during drilling.

Site-specific groundwater direction and depth information was not available in the records reviewed. Based on information obtained from the California State Water Resources Control Board GeoTracker database (GeoTracker database) and topographic interpretation, groundwater beneath the Site is anticipated at a depth of approximately 250 bgs and is estimated to flow to the south.



### **3.3 OIL AND GAS RECORDS**

According to the California Department of Conservation, Geologic Energy Management Division Well Finder online database, there are no permitted oil or gas wells on the Site or at adjacent properties.

### **3.4 SENSITIVE RECEPTORS**

Farallon conducted a limited assessment of sensitive receptors on or in the vicinity of the Site that was confined to visually apparent features such as surface water bodies (e.g., low-lying wet areas, streams, ponds) and residential and recreational areas. Farallon's assessment of sensitive receptors included a review of readily ascertainable information relating to the presence of private, semiprivate, public, and industrial water-supply wells.

According to the EDR Report, a groundwater monitoring well maintained by the San Bernardino County Water Resources Division is located between 0.125 and 0.25 mile of the Site, and groundwater monitoring wells maintained by the San Bernardino County Water Resources Division and Department of Public Health are located within 0.25 and 0.5 mile of the Site. In addition, a public drinking water well is located within 0.25 and 0.5 mile of the Site. No wetlands are mapped on the Site, and the Site is not mapped in a floodplain. The major water body nearest the Site was identified as the Santa Ana River, located approximately 6 miles south of the Site.





## 4.0 USER-PROVIDED INFORMATION

Farallon understands that the user of this report, Prologis, is seeking to follow the standards set forth in ASTM E1527-13 and -21 to complete an environmental assessment of the Site. The user has specific responsibilities for fulfilling ASTM E1527-13 and -21 requirements to help identify the possibility of recognized environmental conditions in connection with the Site. These responsibilities do not require the technical expertise of an Environmental Professional, and were not performed by the Environmental Professional who conducted the Phase I ESA at the Site.

To facilitate fulfillment of the ASTM E1527-13 and -21 requirements identified below, Farallon provided Prologis with a copy of the *Phase I ESA User Questionnaire* (User Questionnaire) to complete. The User Questionnaire is provided in Appendix C of this Phase I ESA Report.

### 4.1 TITLE AND LIEN RECORDS

Prologis indicated that it was not aware of environmental liens against the Site.

### 4.2 EXPERIENCE AND SPECIALIZED KNOWLEDGE

Prologis indicated that it has no experience or specialized knowledge regarding the Site.

### 4.3 COMMONLY KNOWN INFORMATION

Prologis indicated that it is not aware of commonly known information that would lead to identification of recognized environmental conditions in connection with the Site.

### 4.4 PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT USERS

Prologis will rely on this Phase I ESA Report.

### 4.5 PREVIOUS ENVIRONMENTAL STUDIES

Farallon was provided with the following environmental documents prepared for the Site:

- *Phase I Environmental Site Assessment Report, The Scoular Company, 5355 East Airport Drive, Ontario, California 91761* dated August 18, 2016, prepared by Partner Engineering and Science, Inc. (Partner 2016 Phase I Report); and
- *Phase II Subsurface Investigation Report, 5355 East Airport Drive, Ontario, California 91761* dated August 16, 2016, prepared by Partner (Partner 2016 Phase II Report).

At the time of the Partner 2016 Phase I Report, the Site was developed as it is today and occupied by grain processing companies. Facility features and operations included the same buildings and grain processing equipment and procedures discussed in Section 2.3. Other features observed at the Site included bulk storage silos, a vehicle wash-down area with associated sheds in the northeastern portion of the Site, two subsurface grain conveyance systems in the northern portion



of the Site, and two maintenance areas within the office and warehouse building (Building A) and truck repair shop building (Building B). The maintenance area inside the truck repair shop (Building B) included a subsurface service pit for vehicle repairs; this pit was not observed during the Site visit due to the presence of stored equipment, but reported by the Site contact to be 4 feet wide by 25 to 30 feet long and between 4 and 5 feet deep. Domestic wastewater was reportedly disposed of by one or two septic systems. Information regarding the construction and locations of the septic systems was not provided from Site contacts. However, locations of the septic systems were speculated, based on previous reports, as being southeast of Building E and east of Building B. In 2016, a suspected septic system appears to have been located with ground-penetrating radar north of Building A, which could be in addition to or instead of previously reported septic system locations. Partner observed hazardous substances and petroleum products at the Site in hazardous material storage areas within Buildings A or B, which included antifreeze, motor oil, waste motor oil, grease, and waste grease. Three ASTs were located outside the northeastern corner of Building A, including one 85-gallon AST containing hydraulic oil, and two 250-gallon ASTs containing diesel fuel.

Previous investigations discussed in the Partner 2016 Phase I Report included four previous Phase I ESAs, three of which were prepared by Terracon Consultants, Inc. (Terracon), dated May 3, 2016, January 19, 2010, and May 5, 2009; and one of which was prepared by SECOR International Incorporated (SECOR), dated October 8, 2003 (SECOR 2003 Phase I Report). Only one of these reports was attached for Farallon's review: the 2016 Phase I Report by Terracon. Terracon did not identify recognized environmental conditions or controlled recognized environmental conditions in connection with the Site; however, a historical recognized environmental condition associated with total petroleum hydrocarbon (TPH) concentrations remaining in-place from a former UST was identified, based on a review of SECOR's 2003 Phase I Report. The SECOR 2003 Phase I Report was not included as an attachment in Terracon's report. The following information regarding SECOR's observations and findings was summarized in the Terracon 2016 Phase I Report. According to Terracon, SECOR did not identify recognized environmental conditions or historical recognized environmental conditions but noted several environmental concerns, including former USTs, the use of petroleum-impacted material as backfill following the removal of a UST, septic systems, and various wastewater and stormwater violations.

SECOR reported that four USTs were removed from the Site, including two 12,000-gallon USTs located north of the mill area, one 12,000-gallon UST located east of the former vegetable oil processing area, and one UST of unknown size located west of the former truck shop building (assumed as present-day Building B). This area was screened with ground-penetrating radar by Partner in 2016, and an assumed UST grave was identified beneath the overhang west of Building B.

Based on SECOR's review of records maintained by the San Bernardino County Fire Department (SBCFD), two 12,000-gallon USTs located north of the mill area were removed in 1989, and a letter issued by SBCFD on September 4, 1998 indicated "contamination remaining in the excavation is below that which is generally considered a problem and further investigation is not warranted." SECOR reported previous investigations were completed by Grisanti and Associates.



Soil samples were collected in the vicinity of a 12,000-gallon diesel UST located east of the “former vegetable oil processing” center, which was speculated by Partner to be located in the northern-central portion of the Site. Analytical results of soil samples indicated concentrations of TPH as diesel (TPH-d) up to 4,500 parts per million at a depth of 16 feet bgs. The 12,000-gallon diesel UST was removed in December 2002 and was granted regulatory closure from SBCFD on January 8, 2003.

During SECOR’s site reconnaissance, a former fueling island was reportedly observed west of the truck repair shop (Building B). According to SECOR, no records were available regarding this former UST. However, an undated permit application for two 4,000-gallon diesel USTs was found on file with SBCFD. Additionally, a permit to operate five USTs, dated February 25, 1988, included a handwritten note indicating that the “number of tanks was amended from five to four per signed-off job card.” In 2002, this area was investigated by Grisanti and Associates, who found concentrations of TPH-d at 11 parts per million at a depth of 15 feet bgs, and no detectable concentrations at a depth of 20 feet bgs. Farallon assumes that these tank graves were the anomalies identified by Partner under the Building B awning in 2016.

Based on a review of Santa Ana Regional Water Quality Control Board, SECOR found that stormwater discharge from the Site exceeded discharge permit limits in 2001 for pH, total suspended solids, oil and grease, total organic carbon, total Kjeldahl nitrogen, biological oxygen demand, copper, and/or zinc. A violation was issued by the Santa Ana Regional Water Quality Control Board in 2001 for the absence of a Storm Water Pollution Prevention Plan and a Storm Water Management Plan.

The Partner 2016 Phase I findings identified four recognized environmental conditions, two historical recognized environmental conditions, and four environmental issues. The four recognized environmental conditions relate to the statuses of a fourth or fifth UST located on the Site, based on conflicting database information and a lack of historical records available regarding the status and location of the USTs; surficial degradation and staining of asphalt around two 250-gallon diesel fuel ASTs; staining and historical use of petroleum products and hazardous materials in maintenance areas within Buildings A and B; and potential impacts associated with the vehicle wash-down area and drainage system, based on reported violations relating to wastewater runoff, poor housekeeping, and an anonymous complaint regarding the routine pouring of used oil into a drain in the vicinity of the vehicle wash-down area. The two historical recognized environmental conditions identified related to the following: the two former 12,000-gallon diesel USTs, which were removed in 1989 and received a No Further Action (NFA) determination issued by SBCFD; and one former 12,000-gallon diesel UST and associated dispenser, which were removed in 2002 and received an NFA determination issued by SBCFD. The four environmental issues identified relate to unknown locations of two on-Site septic systems; grain processing equipment and subsurface grain conveyance systems requiring lubrication oil; railroad spurs extending onto the Site that may have impacted the Site with pesticides, herbicides, and oils from rail line maintenance and/or construction; and potential asbestos-containing materials associated with the age of the buildings. Recommendations regarding these findings included a limited subsurface investigation to determine the presence or absence of soil and/or groundwater contamination due to the historical



use of the Site, and an operation and maintenance program to be implemented to safely manage the suspect asbestos-containing materials at the Site.

The Partner 2016 Phase II Report investigation completed at the Site included an assessment to identify former on-Site USTs or associated features, reported septic systems, and soil and soil gas sampling to assess for indications of a release from historical Site activities. A geophysical survey was completed to identify USTs remaining in-place, backfilled tankholds, septic tanks, and/or associated features, and to clear boring locations of utilities. One large anomaly, indicative of a backfilled excavation, was located under the western canopy of Building B, which generally corresponded to the location of the former USTs. There were no large metallic features identified, so Partner concluded that the USTs in this area had been removed. One large anomaly resembling a septic system was located north of Building A.

As part of the soil and soil gas investigation, 26 borings were advanced between depths of 1 and 25 feet bgs for the collection of soil and/or soil gas samples. Soil samples were analyzed for TPH carbon chain C6-C40 (TPH-cc) by U.S. Environmental Protection Agency (EPA) Method 8015C and volatile organic compounds (VOCs) by EPA Method 8260B; and soil gas samples were analyzed for VOCs by EPA Methods TO-15 and 8260B. No detectable concentrations of VOCs or TPH-cc were present in soil samples. Analytical results of soil gas samples indicated detections of VOCs including tetrachloroethene (PCE), trichloroethene, toluene, ethylbenzene, and xylenes. The concentrations of these detectable results were less than the residential and commercial/industrial calculated soil gas screening levels (SGSLs) at the time of the report. Partner concluded that there did not appear to be a discernable vapor intrusion condition to the Site, and the detections of VOCs in soil gas did not represent a threat to human health or the environment. Partner recommended no further investigation with respect to the on-Site grain handling facility at the time of the report.

Although the reported concentrations were less than regulatory criteria at the time of the report, the California Department of Toxic Substances Control *Human Health Risk Assessment Note Number 3* was updated in April 2020 to include the use of a more conservative attenuation factor of 0.03 in SGSL calculations. The 0.03 attenuation factor can be used to develop “low” level screening levels and can be used in conjunction with previously approved attenuation factors published in 2011 (known as “high” level screening levels). In comparison with the “low level” PCE SGSL, the PCE concentrations in soil vapor samples collected from five locations in 2016 exceeded the calculated soil gas commercial/industrial screening level of 67 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ). Additionally, in comparison with the “low level” ethylbenzene SGSL, the ethylbenzene concentration in one soil vapor sample exceeded the calculated soil gas commercial/industrial screening level of 163  $\mu\text{g}/\text{m}^3$ . These samples were located within and adjacent to Building B at a depth of 5 feet bgs.

No other reports were provided to Farallon for review.



## 5.0 SITE BACKGROUND AND HISTORY

Farallon reviewed the following historical sources as part of this Phase I/II ESA:

- Aerial photographs of the Ontario, California area dated 1938, 1948, 1953, 1959, 1966, 1975, 1985, 1990, 1994, 2002, 2005, 2009, 2012, and 2016 obtained from EDR;
- Cole Information Services, GTE, and Haines and Digital Business Directories of Ontario, California dated 1985, 1990, 1995, 1999, 2003, 2004, 2008, 2009, 2014, and 2017 obtained from EDR; and
- USGS topographic maps of Guasti, California dated 1897, 1900, 1903, 1941, 1944, 1953, 1954, 1966, 1973, 1976, 1981, 2012, 2015, and 2018 obtained from EDR.

A search for fire insurance maps resulted in notification that there was no coverage for the Site.

Farallon is not responsible for the accuracy or completeness of the historical sources reviewed. The historical sources documented were reasonably ascertainable and practically reviewable during this Phase I ESA. Historical sources are provided in Appendix D.

### 5.1 SITE

Topographic maps between 1897 and 1903 did not include significant detail regarding the Site. The Site was used as agricultural or grazing land from at least the late 1930s to the early 1970s. By 1973, the Eastern Parcel was developed with small grain storage silos and other features associated with milling operations in the grain mill area. In the 1975 aerial photograph, grain appeared to be stockpiled in the southwestern portion of the Site in Buildings A through C. Based on 1953, 1966, and 1981 topographic maps, Airport Drive was previously known as “Slover Avenue.” By 1985, the grain storage structures, Buildings D and E, were developed. By 2002, the Site appeared in its existing configuration. The 2002 aerial photograph shows grain processing operations had expanded at the Site to the Western Parcel, which included the development of three large grain storage silos. The Site has been occupied by Verhoeven from 1973 to the present; Chino Grain and Milling, Inc. in 1985; Coast Grain Company between 1990 and 2003; Scoular between 2004 and the present; and JD Heistell and Company in 2009.

Additional information regarding the Site history is provided in Section 6.1, On-Site Listings, and Section 7.0, Interviews.

### 5.2 ADJACENT PROPERTIES

The Site is bound by industrial properties to the north beyond the railroad tracks, industrial properties to the east and west, and industrial properties to the south across East Airport Drive.

Adjacent properties consisted primarily of undeveloped and/or agricultural land. Railroad tracks were present on the north-adjacent property from at least the early 1900s through the 1960s, when the east-adjacent property was developed with the existing industrial facility. By the early 1990s,



the south-adjacent property was developed with an industrial building. By the early 2000s, the west- and north-adjacent properties were developed with industrial buildings and have remained relatively unchanged through the present.

Additional information regarding adjacent properties is provided in Section 6.2, Adjacent and Other Facility Listings.



## 6.0 REGULATORY REVIEW

EDR conducted a review of environmental regulatory agency database listings to identify reported environmental issues related to the Site and facilities in the Site vicinity. Farallon used the greater of each approximate minimum search distance from the Site for each of the referenced federal and state environmental databases, as specified in ASTM E1527-13 and -21.

Farallon reviewed the results from the EDR Report prepared for the Site to note reported facilities in the vicinity of the Site that were considered to have a potential to adversely impact the Site (i.e., are known to have resulted in or are expected to result in a recognized environmental condition). Reported facilities identified in the EDR Report were evaluated with respect to the nature and extent of a given release, the distance of the reported facility from the Site, the stratigraphy of soil, the expected soil permeability, and the location of a reported facility with respect to known or expected local and/or regional groundwater flow direction.

The descriptions of the databases searched, the complete database names for the abbreviations used in this Phase I/II ESA Report, and the associated search distances from the Site are provided in the EDR Report presented in Appendix E.

### 6.1 ON-SITE LISTINGS

**JD Heiskell Holdings LLC**, former occupant of the Site, was identified on HAZNET, HWTS, CA FID UST, EMI, CIWQS, CERS, and WDS databases. The listings relate to hazardous material management, air quality permits, records of USTs, and industrial stormwater permits associated with livestock feed manufacturing operations. Hazardous wastes listed as being disposed of between 2003 and 2010 consisted of waste oil and mixed oil, aqueous solution with total organic residues less than 10 percent, other organic solvents, and asbestos-containing waste. No violations were identified in the listings. The listings for the USTs did not provide new information regarding contents, locations, and removal dates of the first-generation USTs.

**George Verhoeven Grain Inc.**, located on the Site, was identified on FINDS, ECHO, RCRA NonGen/NLR, EMI, and CIWQS databases. George Verhoeven Grain Inc. was identified in the CERS, AST, CERS HAZ WASTE, CERS TANKS, NPDES, and San Bern. Co. Permit databases (listed in the EDR Report under “Coast Grain Inc.”) The listings relate to hazardous material management, air quality permits, ASTs, and industrial stormwater permits associated with grain processing operations. The CERS TANKS listings indicated records of aboveground petroleum storage. No other information regarding ASTs was provided in the EDR database listings. The CERS listing indicated some administrative violations during inspections; however, there were no violations indicating a spill or a release occurred at the Site.



**The Scoular Company**, located on the Site, was identified as “John Powell,” a manager of Scoular, based on information obtained online, in the HAZNET and HWTS databases. The listings related to hazardous material management between 2006 and 2010. Hazardous wastes in the listing included other organic solids, waste oil and mixed oil, unspecified aqueous solution, and unspecified organic liquid mixture. No violations were identified in the listings.

**Coast Grain Inc./Coast Grain Company**, former occupant of the Site, was identified on UST, CERS HAZ WASTE, SWEEPS UST, WDS, EMI, HAZNET, and HWTS databases. The listings related to records of USTs, industrial stormwater permits, air quality permits, and hazardous waste management associated with grain processing operations. The SWEEPS UST listing indicated the Site had five registered USTs. No specific information regarding the ASTs or USTs, including tank capacity, contents, or status, was provided in the listings. See Sections 4.5 and 7.3 for further discussion regarding USTs at the Site. Hazardous wastes in the listing between 2002 and 2003 included tank bottom waste with halogenated organics.

**G&R Transportation**, a freight shipping and trucking company, according to online resources, was listed as being associated with the Site address and identified in the HAULERS database. No pertinent information or violations were identified in the listing. No current or historical information regarding tenants at the Site has indicated G&R Transportation occupied the Site, and this listing may be incorrectly associated with the Site.

Farallon searched the GeoTracker database and the California Department of Toxic Substances Control online EnviroStor database (EnviroStor database) for records related to the Site, but found no listings. Additional information regarding the Site is provided in Section 7.5, Interview with Regional Water Quality Control Board.

## 6.2 ADJACENT AND OTHER FACILITY LISTINGS

Reported facilities within 0.25 mile up-gradient, 0.125 mile cross-gradient, or adjacent down-gradient of the Site with respect to the assumed groundwater flow direction are considered to have a potential to have impacted the Site. Facilities that were listed in the EDR Report but not identified as a reported facility (e.g., a facility listed as a hazardous waste generator but not as having had a release), and facilities that were listed as “Closed” were not considered to have a potential to have impacted the Site.

**Praxair, Inc./Union Carbide Corp./Linde Inc./Kenan Advantage Group/Old Dominion Freight Line**, at 5735 and 5705 East Airport Drive, east-adjacent to and cross-gradient of the Site with respect to assumed groundwater flow direction, were identified in the San Bern. Co. Permit, HIST UST, EMI, RCRA NonGen/NLR, UST, RCRA-SQG, LUST, CERS HAZ WASTE, CERS TANKS, TRIS, Cortese, NPDES, CIWQS, CERS, HWTS, AST, SWEEPS UST, CA FID UST, HIST CORTESE, NPDES, WDS, and/or CPS-SLIC databases. The listings relate to records of ASTs, USTs, industrial stormwater permits and discharge, air quality permits, hazardous materials management, and a leaking UST case that was granted case closure status in 1988. The LUST listing under Union Carbide Corp indicated solvents from a leaking UST had impacted soil. The listing indicated a case closure status as of September 7, 1988. HIST UST listings associated with





Union Carbide Corporation indicate the facility has or had between two and 18 registered USTs on the property. One HIST UST listing indicated two 1,000-gallon USTs used for waste were installed in 1975. The other HIST UST listing indicated 18 USTs or subsurface features were registered at the property, including four 10,000-gallon USTs and one 12,000-gallon UST used for diesel fuel; eight unlined concrete or carbon steel sumps used for sulfuric acid, chlorpyrifos (chromate), silica, sodium hydroxide, sodium bichromate, and/or waste oil; one 1,000-gallon UST used for waste oil; one 8,000-gallon UST used for unleaded fuel; one 6,000-gallon UST used for motor oil; and two 500-gallon USTs used for waste oil. No information regarding the status of the USTs or subsurface features was provided in the listings. Hazardous wastes in listings included ignitable waste, corrosive waste, reactive waste, chromium, lead, and spent nonhalogenated solvents. No other listing except for the one associated with the leaking UST case indicated a release had occurred at the property. A number of administrative violations associated with inspections were indicated in the San Bern. Co. Permit database listings. No information was provided in the violation listings that indicated a release had occurred at the property. Based on the status, depth to groundwater, and location of the property at a cross-gradient direction from the Site, no evidence was found to indicate that this property represents a recognized environmental condition in connection with the Site.

**K-Mart Distribution Center/Ontario Distribution Center/Costco Wholesale/Costco Logistics**, at 5600 East Airport Drive, located beyond Airport Drive, south-adjacent to and down-gradient of the Site with respect to assumed groundwater flow direction, was identified in the LUST, SWEEPS UST, HIST UST, Cortese, HIST CORTESE, CERS, CA FID UST, EMI, NPDES, WDS, CIWQS, RCRA NonGen/NLR, AST, HAZNET, San Bern. Co. Permit, HWTS, RCRA-SQG, and RCRA-LQG databases. The listings relate to records of USTs, ASTs, industrial stormwater permits, hazardous materials management, and a leaking UST case. According to the SWEEPS UST and HIST UST listings, three USTs were installed on the property, including two 15,000-gallon diesel USTs and one 2,000-gallon unleaded fuel UST. Information obtained from the GeoTracker database indicated a leaking UST containing diesel fuel impacted soil at the property in 1992. The case was granted case closure status in 1993. Based on the status, depth to groundwater, and location of the property at a down-gradient direction from the Site, this property does not represent a recognized environmental condition in connection with the Site.

### 6.3 UNMAPPABLE LISTINGS

EDR identified six facilities as “unplottable” that EDR was unable to map due to inaccurate or inadequate address information. Farallon did not identify any of the unplottable facilities in the immediate vicinity of the Site. Therefore, the unplottable facilities located do not represent a recognized environmental condition in connection with the Site.



## 7.0 INTERVIEWS

Farallon conducted interviews with individuals familiar with the Site and contacted relevant local governmental agencies to obtain additional Site information. The responses from the parties contacted are provided below.

### 7.1 INTERVIEW WITH SITE REPRESENTATIVE

During the site reconnaissance, Farallon interviewed Randy Verhoeven of Verhoeven, and Steve Schennum of Scoular on January 13, 2022. The following information was obtained from this interview:

- No known USTs are present at the Site;
- Hazardous materials on the Site generally consist of diesel fuel, hydraulic fluid, gear oil, transmission oil, waste oil, and cleaning solvent;
- Utilities and natural gas are provided by the local municipality and gas company; and
- The maintenance area inside the truck repair shop (Building B) included a subsurface service pit for vehicle repairs; this pit was not observed during the Site visit due to the presence of stored equipment, but reported by the Site contact to be 4 feet wide by 25 to 30 feet long and between 4 and 5 feet deep.

Randy Verhoeven and Steve Schennum stated that they had not been made aware of any pending, threatened, or past:

- Litigation relevant to hazardous substances or petroleum products in, on, or from the Site;
- Administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the Site; or
- Notices from a governmental entity regarding violations of environmental laws or liability relating to hazardous substances or petroleum products.

### 7.2 INTERVIEW WITH CITY

Farallon submitted a written information request to the City of Ontario on December 23, 2021 to inquire whether records of inspections, notices of violations and/or reported hazardous spills, building files, permits, wastewater discharge permits, and/or USTs for the Site were on file. On January 26, 2022, the City of Ontario provided Farallon with over 150 pages of files for the Site address related to building permits, City fire department inspections (for signage/fire safety violations), stormwater, and tenant improvement information. No information related to processing or storage locations, septic systems, or hazardous material use for the Site was found in the file.



### 7.3 INTERVIEW WITH THE COUNTY

Farallon submitted a written information request for records from SBCFD on December 16, 2021. SBCFD is the Certified Unified Program Agency for San Bernardino County, and maintains most records pertaining to hazardous substance use, storage, and waste generation; USTs and ASTs; hazardous substance inspections, and unauthorized releases. SBCFD allowed Farallon to copy files for Cast Grain Milling, Verhoeven, and Scoular at the Site addresses. In general, files were related to generator/handler information, USTs, and permit information. Pertinent files are summarized below.

#### Cast Grain Milling

In the letter regarding Removal of Two Underground Storage Tanks at 5355 Airport, Ontario dated September 4, 1998, from SBCFD, it was noted that a July 25, 1989 Babcock & Sons, Inc. report was reviewed by SBCFD and that contamination remaining after excavation is “below that which is generally considered a problem and further investigation is not warranted.” No further information was in the file regarding the USTs and locations; however, Farallon has determined that SBCFD is likely referring to the two 12,000-gallon fueling USTs noted in previous reports as formerly located north of the grain mill.

A 2001 SBCFD inspection indicated similar quantities of automotive fluids and oils generated as wastes at the Site. It was also noted that a “parts washer” was present in the “Vehicle Maintenance Division,” but the solvent used was not noted. It was also noted that molasses silos were in use at the Site, and a molasses storage tank was noted in the vicinity of the truck-washing area (containing molasses truck rinse water used as pig feed). A hazardous waste inventory dated 2001 noted perchloroethylene and trichloroethylene related to the parts washer, but volumes and locations were not noted.

In 2002, Tank Specialists of California removed a 12,000-gallon diesel steel UST and fuel dispenser mapped southeast of Building C. According to the letter regarding Soil Sampling Following the Removal of an Underground Storage Tank – Coast Grain Co., 5355 E. Airport Drive, Ontario, California dated December 18, 2002, from Advanced GeoEnvironmental, Inc., three confirmatory soil samples were collected beneath the bottom of the UST after removal, and soil samples were collected from stockpiles. The soil samples were analyzed for TPH-d; benzene, toluene, ethylbenzene, and xylenes; and methyl tertiary-butyl ether. Minor petroleum impacts were noted in stockpiled soil (800 milligrams per kilogram of TPH-d), which was reportedly used as backfill for the excavation. No constituents of concern were detected in the confirmatory soil samples collected from beneath the UST. Advanced GeoEnvironmental, Inc. recommended that SBCFD Hazardous Materials Division issue closure of the UST, and the letter regarding Removal of One Underground Storage Tank at Coast Grain Inc., Located at 5355 E. Airport Drive, Ontario, California dated January 8, 2002, from SBCFD was issued indicating that further investigation was not warranted. Farallon considers this UST a historical recognized environmental condition for the Site.

#### George Verhoeven Grain Inc.



Generator files dated 2016 through 2019 were maintained with SBCFD that noted the use and generation of automotive fluids and wastes on the Site. Violations were noted as requiring the completion of a Spill Prevention, Control, and Countermeasure plan and a business plan. Hazardous waste inventories noted oils and welding gases; no solvents were noted.

#### The Scoular Company

Generator files dated 2010 were maintained with SBCFD that noted the use and generation of automotive fluids and wastes on the Site. No violations were noted. Operations were noted as discontinued in 2011 (although Farallon noted Scoular active at the Site during the 2022 site reconnaissance).

### **7.4 INTERVIEW WITH SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**

Farallon accessed online records available from South Coast Air Quality Management District on January 26, 2022. South Coast Air Quality Management District maintains records for five facilities associated with the Site address: Chino Grain & Milling Inc. (ID 3037); Coast Grain Company (ID 52930); Unicorn, LLC (ID 131542); George Verhoeven Grain Inc. (ID 163123); and The Scoular Company (ID 17251). A summary of the files is provided below.

#### Chino Grain & Milling Inc. (ID 3037)

The online file indicates that the Chino Grain & Milling Inc. facility is out of business, and contained equipment for storage and dispensing of gasoline and milling operations including amine regeneration, livestock feed rolling, cyclone, bulk loading of trucks, and livestock feed pelletizing. No violations were noted, and no documents could be found related to the storage or dispensing of gasoline in the online files.

#### Coast Grain Company (ID 52930)

The online file indicates that the Chino Grain Company facility was sold, and contained equipment for livestock feed rolling, cyclone, bulk loading of trucks, livestock feed pelletizing, storage tank livestock feed, service station storage and dispensing of gasoline, afterburner, boiler, baghouse, and emission reduction. No violations were noted, and no documents could be found related to the storage or dispensing of gasoline in the online files.

#### Unicorn, LLC (ID 131542)

The online file indicates that the Unicorn LLC facility was sold, and contained equipment for railroad car unloading grains. No violations were noted.

#### George Verhoeven Grain Inc. (ID 163123)

The online file indicates that the Verhoeven facility was active, and contained equipment for livestock feed rolling, cyclone, bulk loading of trucks, and a boiler. One violation was noted on September 4, 2012 that was in compliance by September 19, 2012; the nature of the violation was not captured in the record.



### The Scoular Company (ID 17251)

The online file indicates that the Scoular facility was active, and contained equipment for rail car unloading. No violations were noted.

## **7.5 INTERVIEW WITH REGIONAL WATER QUALITY CONTROL BOARD**

Farallon received files available from the Santa Ana Regional Water Quality Control Board (Water Board) on December 27, 2021. Water Board records included information regarding a former brine disposal pond associated with the boilers at the grain mill area. A summary of files is provided below.

A brine disposal pond owned by the Union Pacific Railroad Company and used by the Coast Grain Company for boiler blow-down water was installed in 1969 and removed in 1998 to allow for the addition of a rail line north of the grain mill area. According to the letter regarding Approval of Closure Report for the Brine Disposal Pond, Coast Grain Company, Ontario, California dated September 24, 1999, from the Water Board, the closure of the pond included the removal of approximately 7,500 cubic yards of salt-contaminated soil and placement of a 40-mil high-density polyethylene liner. Miscellaneous analytical data available in the Water Board file indicated that soil was analyzed for pH, with no elevated readings noted. Based on mapping provided in the Water Board file, the pond was located south of the Southern Pacific Railroad Main Line between two sets of rail spurs; it appears to be just north of the current property line. However, a survey would be required to understand the northern property line in relation to the former brine disposal pond. Based on the location and nature of use (boiler blow-down), and the location of the former brine pond in the vicinity of the northern property line, this is considered a data gap for this report. In the event that the former brine pond is located off-Site, it would be considered a de minimis condition for the Site.



## 8.0 SITE RECONNAISSANCE

Farallon conducted a site reconnaissance on January 13, 2022 to observe the Site for physical evidence of recognized environmental conditions. The methodology used for the site reconnaissance and the observations made during the reconnaissance are discussed below. A description of the Site is provided in Section 2.2, Site Description. Photographs taken during the site reconnaissance are presented in Appendix B.

### 8.1 SITE RECONNAISSANCE METHODOLOGY

Farallon completed a walk around the entire perimeter of the Site and viewed interior operations.

There were no deviations from ASTM E1527-13 or -21 during the Phase I ESA, with the exception of additional environmental services requested by Prologis.

Limiting conditions encountered during this Phase I ESA were the presence of active and decommissioned equipment and vehicles on exterior portions of the Site that prevented Farallon from observing the entire ground surface of the Site, and the presence of equipment in the Site buildings that prevented Farallon from observing entire interior floor surfaces. Based on information obtained from the Site representative, historical records, previous reports, and data obtained during the subsurface investigation conducted in March 2022, these limiting conditions are not expected to alter the conclusions of this report.

### 8.2 SITE RECONNAISSANCE OBSERVATIONS

Weather conditions at the time of the reconnaissance were overcast, with a temperature of approximately 70 degrees Fahrenheit. No weather-related Site-access restrictions were encountered during the reconnaissance. Operations at the Site at the time of the reconnaissance were observed to be consistent with operations as described in Section 2.3, Site Operations.

#### 8.2.1 Interior Observations

Farallon's observations of the interior of the Site buildings during the site reconnaissance are documented in the table below. Comments pertaining to notable interior observations follow in Section 8.2.2. Photographs taken during the site reconnaissance are provided in Appendix B.

INTERIOR OBSERVATIONS	YES	NO
Odor		X
Heating/Cooling System	X	
Drain(s) and/or Sump(s)		X
Staining and/or Corrosion		X
Storage Tank(s), Vent Pipe(s), Fuel Port(s), and/or Fill Pipe(s)		X



INTERIOR OBSERVATIONS	YES	NO
Clarifier(s)		X
Discharge Area		X
Drum(s) and/or Other Container(s)		X
Pool(s) of Liquid		X
Automobile Lift(s)		X
Monitoring Well(s)		X
Hazardous Material(s) and/or Petroleum Product(s)	X	
Hazardous Waste	X	
Other	X	

## 8.2.2 Interior Observation Comments

### Heating/Cooling System

The Site buildings are primarily unconditioned. Electrical window air-conditioning units were observed in select office/administrative areas.

A natural-gas-powered boiler unit is present within the grain mill, and provides steam for the steam jackets. The grain mill is also equipped with a fan-cooled cooling area. No other heating systems were observed in the buildings.

### Hazardous Material(s) and/or Petroleum Product(s)

Hazardous substances stored within the Building A warehouse on the Eastern Parcel included small quantities of oils and automotive fluids. The materials were observed to be stored on pallets, with no staining or other evidence of a significant release.

Hazardous substances stored within Building B on the Eastern Parcel included two 55-gallon used oil drums; two 25-gallon grease carts; and a parts washer attached to a 55-gallon drum of Shellsol D43, a petroleum hydrocarbon-based mineral spirit. The materials were observed to be stored on pallets, with no staining or other evidence of a significant release.

Hazardous substances within a fire cabinet in the Western Parcel office trailer included two 5-gallon gasoline canisters. Additional materials stored outside of the fire cabinet included ten 5-gallon pails containing truck lubricants, gear oil, and hydraulic oil; one 25-gallon grease cart; and one 5-gallon pail containing grease. The materials were observed to be stored on pallets, with no staining or other evidence of a significant release.



## Hazardous Waste

Hazardous wastes stored within the Building A warehouse on the Eastern Parcel included four 55-gallon drums of waste oil, five 25-gallon drums of waste oil, and approximately 20 five-gallon waste oil pails. The materials were observed to be stored on pallets, with no staining or other evidence of a significant release.

## Other

The maintenance area inside the truck repair shop (Building B) included a subsurface service pit for vehicle repairs; this pit was not observed during the Site visit due to the presence of stored equipment, but reported by the Site contact to be 4 feet wide by 25 to 30 feet long and between 4 and 5 feet deep.

### 8.2.3 Exterior Observations

Farallon’s observations of the exterior of the Site during the site reconnaissance are documented in the table below. Comments pertaining to notable exterior observations follow in Section 8.2.4. Photographs taken during the site reconnaissance are provided in Appendix B.

EXTERIOR OBSERVATIONS	YES	NO
Odor		X
Staining and/or Corrosion	X	
Storage Tank(s), Vent Pipe(s), and/or Fuel Port(s)	X	
Drum(s) and/or Other Container(s)		X
Pool(s) of Liquid		X
Hazardous Material(s) and/or Petroleum Product(s)		X
Hazardous Waste		X
Pit(s), Pond(s), and/or Lagoon(s)		X
Stressed Vegetation		X
Solid (Nonhazardous) Waste—Evidence of Dumping		X
Wastewater		X
Domestic Water	X	
Water Well(s)		X
Septic/Sewer System	X	
Stormwater	X	
Transformer(s)	X	





<b>EXTERIOR OBSERVATIONS</b>	<b>YES</b>	<b>NO</b>
Significant Amount of Fill Material		X
Other	X	

#### **8.2.4 Exterior Observation Comments**

##### **Staining and/or Corrosion**

Farallon observed incidental petroleum staining on several areas of the Site, generally near petroleum product storage areas. No drains, sumps, clarifiers, or other potential subsurface conduits were observed in these areas. The staining is considered de minimis and does not constitute a recognized environmental condition.

##### **Storage Tank(s), Vent Pipe(s), and/or Fuel Port(s)**

Four ASTs were present on the Site:

- Two 250-gallon, reportedly double-walled diesel ASTs within secondary containment. These ASTs are located on the northeastern exterior border of Building A and are used for fueling tractors and forklift equipment. One of the ASTs is used by Verhoeven, and the other by Scoular.
- One 220-gallon, reportedly double-walled hydraulic oil AST located on the northeastern exterior border of Building A. This AST is used to provide new hydraulic oil for equipment operation and maintenance.
- One 499-gallon, single-walled propane AST located east of Building C.

The ASTs were observed to be in good condition with de minimis staining to nearby concrete pads, and no evidence of a significant release.

##### **Domestic Water**

Domestic water is supplied to the Site buildings by the City of Ontario.

##### **Septic/Sewer System**

Sanitary sewage generated at the Site discharges to three or four on-Site septic systems, two or three of which are located on the Eastern Parcel and one of which is located on the Western Parcel. The estimated locations of the septic tanks and leach fields on the Eastern Parcel are identified on Figure 2. Property personnel on the Western Parcel were unaware of the location of the septic systems.

Because on-Site septic systems appear to be used for domestic sewer, with limited hazardous material use in the proximity that could be introduced to the septic systems as a release pathway, the presence of the septic systems at Building E, Building A, and on the Western Parcel is considered a de minimis condition for the Site. Because the septic system east of Building B is



connected to a building that has been subject to the use and release of chlorinated solvents, this septic system is considered a recognized environmental condition in connection with the Site.

### **Stormwater**

Stormwater is removed from the Site via direct permeation through gravel-paved surfaces, and via concrete swale and paved surfaces to Airport Boulevard.

### **Transformer(s)**

Three pad-mounted transformers were observed on the Site on the Western Parcel. No staining or leakage was observed in the vicinity of the transformers. Based on the good condition of the equipment, the transformers are not expected to represent a significant environmental concern.

An underground grain conveyance system is located within the grain mill area. Details of the underground system, including how grain is moved or whether hydraulic systems are present, was not provided to Farallon.

The presence of transformers, with no evidence or report of leaking, and underground grain conveyance systems are considered de minimis conditions for the Site. In the event that the conveyance systems are hydraulic and determined to have leaked, this conclusion should be reevaluated.

### **Other**

The Eastern Parcel is equipped with a vehicle wash-down area with sump north of Building B, which is asphalt-paved and bermed, and was previously used for truck washing. Property personnel report that truck exteriors were washed in this area on an infrequent basis, and no undercarriage/chassis or engine washing was conducted on the Site. The wash area is equipped with a lined sump connected to an approximately 10,000-gallon AST via underground piping. The AST was empty at the time of the Site visit. Personnel report that the water tank has not been used in at least 11 years. Given the nature of use and that wash water was routed to an AST with no discharge, the vehicle wash-down area is considered a de minimis condition for the Site.

Rail spurs are present along the northern property boundary. Based on available mapping, it cannot be confirmed whether the rail spurs are located on the Site or to the north, which is a data gap for this report. Because of the nature of the conveyance of the rail spurs (for moving grain), the presence of rail spurs within or along the northern property boundary is considered a de minimis condition for the Site. If the spurs are determined to be on the Site, this conclusion should be reevaluated, as creosote and oils in rail spurs can lead to surficial releases to soil.



## **9.0 ADDITIONAL ENVIRONMENTAL SERVICES**

At the request of Prologis, Farallon conducted environmental services in addition to those specified in ASTM E1527-13 and -21. These services are considered non-scope items, and are not required to satisfy ASTM E1527-13 and -21.

### **9.1 WETLANDS**

Wetlands are defined jointly by EPA and the U.S. Army Corps of Engineers as “those areas that are inundated or saturated by surface or groundwater for a duration and frequency sufficient to support and under normal circumstances do support a prevalence of vegetation adapted for life in saturated soil conditions.” According to the EDR Report, wetlands are not present on the Site.

### **9.2 ASBESTOS**

In June 1978, EPA initiated a ban on the use of asbestos-containing material in spray application products such as structural fireproofing and acoustic ceilings, pipe lagging, joint compounds, and spackles. Based on the construction date of the Site buildings of approximately 1973, asbestos-containing materials may be present at the Site.

### **9.3 LEAD-BASED PAINT**

In 1978, EPA initiated a ban on the manufacture and use of lead-based paints. Based on the construction date of the Site buildings of approximately 1973, lead-based paint may be present at the Site.

### **9.4 WATER SUPPLY/LEAD IN DRINKING WATER**

Based on the Site buildings’ construction date of approximately 1973, it is possible that lead solder was used during construction of plumbing fixtures.

### **9.5 RADON**

Radon is a colorless, tasteless, radioactive gas with an EPA-specified action level of 4.0 picocuries per liter of air. Radon gas has a short half-life of 3.8 days. The health risk potential of radon is associated with its rate of accumulation within confined areas, particularly those near or in the ground such as basements, where vapors can readily transfer from the ground to indoor air through foundation cracks or other pathways.

According to the EDR Report, the Site is in EPA Radon Zone 2, with predicted average indoor screening levels of between 2.0 and 4.0 picocuries per liter. The EPA zone designation reflects the average short-term radon measurement that can be expected to be measured in a building without implementation of radon-control methods. Based on the EPA designation, radon is unlikely to pose an environmental concern to Site occupants.



## **9.6 WATER INTRUSION**

Farallon inspected visually accessible building materials for evidence of water damage during the site reconnaissance. No visible evidence of water-damaged building materials was observed. Farallon did not detect high-humidity areas in the buildings that would suggest moisture concerns.



## **10.0 PHASE II ESA**

In March 2022, Farallon conducted soil and soil vapor sampling at the Site to assess former UST areas and septic systems, and the new building footprint for the potential for vapor intrusion issues. The scope of work for the Phase II ESA portion of this assessment included the advancement of 12 borings and installation of 10 temporary soil vapor probe locations with single- or multi-depth nested vapor points for the collection of soil and soil vapor samples.

The general scope of work was proposed and authorized in the letter regarding Proposal for Subsurface Investigation, 5355 East Airport Drive, Ontario, California dated February 14, 2022, from Kathy Lehnus and Scott Allin of Farallon to Julia Smith of Prologis.

Sample locations are provided on Figures 2 and 3, with limited analytical data presented on Figure 3. Sampling rationale and analytical data from the sampling are included in Tables 1 through 5.

### **10.1 PERMITTING**

No permitting was required for this work.

### **10.2 HEALTH AND SAFETY**

Prior to conducting field investigation activities, a health and safety plan compliant with the requirements of the Occupational Safety and Health Act of 1970 and 8 CCR 3203 was prepared. Additionally, in accordance with Farallon health and safety policy, personal protection equipment precautions related to COVID-19 were implemented for field personnel during field activities.

Prior to commencement of drilling activities, Farallon marked the proposed boring locations at the Site and contacted Dig Alert for public utility notice. Farallon also engaged a private utility location service to screen the proposed boring locations for utilities that may be encountered during advancement with hand tools and direct-push drilling.

### **10.3 GEOPHYSICAL SURVEY**

Farallon oversaw the completion of a geophysical survey at several areas at the Site to attempt to locate former UST areas and reported septic tank areas. No underground structures were found in the survey areas, with the exception of two connected septic tanks northeast of Building B: one north of the building and one east of the building. A vapor point was advanced at the northern septic tank (SVP-10). The septic system east of the building was not accessible (in fenced area). It could not be determined whether the two septic tanks were connected.

### **10.4 BORING LOCATIONS AND SAMPLING RATIONALE**

Borings SB-1 and SVP-1 were advanced in the vicinity of the two former 12,000-gallon petroleum USTs on the northern portion of the Site to confirm conditions at the former USTs and assess soil vapor beneath the proposed building footprint. Borings SVP-2, SVP-3, and SVP-4 were advanced



on the central portion of the Site to assess soil vapor beneath the proposed building footprint. Borings SB-2 and SVP-5 were advanced in the vicinity of the former 12,000-gallon petroleum USTs on the central-eastern portion of the Site to confirm conditions at the former UST and assess soil vapor beneath the proposed building footprint. Boring SVP-6 was advanced at the vehicle wash-down area with sump to assess this area and the soil vapor beneath the proposed building footprint. Borings SVP-7, SVP-8, and SVP-9 were advanced west of Building B, and sub-slab points SS-1 and SS-2 were advanced beneath Building B to assess former PCE impacts encountered in soil vapor in these areas. Boring SVP-10 was advanced to the northwest of Building B to assess the likely location of the septic system associated with the building. Boring locations and rationale are presented in Table 1.

## 10.5 BORING ADVANCEMENT AND SOIL SAMPLING

For health and safety reasons, the borings were advanced using a hand auger to a depth of 5 feet bgs and subsequently completed to target (or attainable) depths with a direct-push drill rig. Concrete and asphalt coverings were cored prior to advancing the borings. Soil encountered during the investigation was described as silty fine to medium sand to a total explored depth of 10 feet bgs, with an apparent coarse sand and gravel layer at 10 feet bgs (and as shallow as 5 feet bgs on the eastern portion of the Site at boring SB-2). Groundwater was not encountered during drilling.

The soils were visually inspected and screened by a Farallon Scientist using a photoionization detector and were described and logged using the United Soil Classification System (Modified). No elevated photoionization detector readings or visual or olfactory evidence of a release were documented during the sampling activities.

Select soil samples were submitted under standard chain-of-custody protocols to Jones Environmental, Inc. of Santa Fe Springs, California for analysis of VOCs by EPA Method 8260 and TPH as gasoline (TPH-g) by EPA Method 8015M using EPA Method 5035 for preservation. In addition, select soil samples were analyzed for the presence of TPH as diesel (TPH-d) and TPH as oil (TPH-o) by EPA Method 8015M, and for California Administration Manual metals by EPA Method 6010B. The full soil sampling schedule is provided in Table 1.

## 10.6 SOIL VAPOR PROBE CONSTRUCTION AND SAMPLING

A total of 14 soil temporary soil vapor probes were installed in 10 soil vapor borings at locations SVP-1 through SVP-10. In general, soil vapor probes were installed at a depth of 4 feet bgs throughout the proposed building footprint, with some deeper probes installed at depths of 8 and 10 feet bgs to assess targeted deeper potential source areas. Soil vapor probe final installation depths are provided in Table 1.

On March 11, 2022, soil gas probe installation was performed in accordance with the *Advisory: Active Soil Gas Investigations* dated July 2015, prepared by the California Environmental Protection Agency (Soil Gas Advisory). The probes consisted of an Airstone microporous vapor implant (or equivalent) connected to 0.25-inch-outside-diameter Nylaflow tubing, finished at the surface with temporary plugs. The annulus around the vapor implant was backfilled with



approximately 0.5 foot of screen-washed No. 3 sand, followed by 6 inches of hydrated granular bentonite to create a seal from the top of the sand to near surface.

The soil gas probes were allowed to equilibrate for 1 week prior to sample collection. Farallon contracted with Jones Environmental Inc. of Santa Fe Springs, California to perform soil gas sampling and analyze samples with its on-Site mobile laboratory. Prior to sample collection, a shut-in test was conducted in accordance with Section 4.2.1 of the Soil Gas Advisory; purging was conducted in accordance with Section 4.2.3 of the Soil Gas Advisory.

The soil vapor samples were collected into glass syringes at a rate of no more than 200 milliliters per minute. A mixture of n-pentane, n-hexane, and n-heptane was used as tracer compounds, which was applied to rags and set at each sample fitting during sample collection; the tracer compounds were not detected in the sub-slab soil vapor samples.

## 10.7 SUMMARY OF SOIL SAMPLING RESULTS

Soil analytical results are summarized below with a comparison with the Los Angeles Regional Water Quality Control Board Maximum Soil Screening Levels for properties with groundwater at a depth greater than 150 feet bgs (for TPH in soil), and with the California Department of Toxic Substances Control (DTSC) CA-Modified Regional Screening Levels (RSLs) and EPA RSLs (in the event that DTSC CA-Modified RSLs are not available) for industrial soil (for metals in soil). Soil sampling results are summarized as follows:

- No TPH or VOCs were detected exceeding laboratory detection limits in the soil samples collected from the Site.
- Low concentrations of naturally occurring metals including barium, cadmium, cobalt, chromium, copper, nickel, lead, vanadium, and zinc were detected in two soil samples submitted for analysis (location SVP-6 from depths of 4 and 8 feet bgs). These concentrations were considerably less than screening levels.

Soil analytical results are tabulated in Tables 2 through 4. Soil analytical reports are attached in Appendix G.

## 10.8 SUMMARY OF SOIL VAPOR SAMPLING RESULTS

Soil vapor analytical results from the Phase II ESA are summarized below. These results were compared with DTSC calculated SGSLs using CA-Modified RSLs or EPA RSLs for indoor air with an attenuation factor of 0.03 or 0.001 for commercial/industrial settings, with an attenuation factor of 0.05 used for sub-slab soil vapor samples.

- PCE was detected in several of the soil vapor samples collected from the Site, as indicated below:
  - PCE was detected in sub-slab soil vapor at concentrations of 220 and 170  $\mu\text{g}/\text{m}^3$ , exceeding calculated screening levels.



- PCE was detected at concentrations ranging between 24 and 247  $\mu\text{g}/\text{m}^3$  in soil gas samples collected from the soil vapor borings west and northwest of Building B (SVP-5, SVP-7, SVP-8, and SVP-9). The concentrations of PCE in soil vapor samples exceeded the calculated screening level using the 0.03 attenuation factor (but were less than the less conservative attenuation factor) in three of the four samples at the targeted 4-foot investigation zone.
  - PCE was detected in shallow soil vapor in central and eastern portions of the planned building slab area at concentrations less than calculated screening levels.
  - The soil vapor sample collected from a depth of 10 feet bgs at SVP-1 at the two former 12,000-gallon diesel USTs at the grain mill area contained PCE at a concentration of 157  $\mu\text{g}/\text{m}^3$ , exceeding the calculated screening level using the 0.03 attenuation factor (but less than the less conservative attenuation factor). Shallow soil vapor from this area contained PCE at considerably less concentrations than the calculated screening level using the 0.03 attenuation factor.
- A trace concentration of dichlorodifluoromethane was detected exceeding laboratory reporting limits in soil vapor sample SVP-10-8; however, this concentration (60  $\mu\text{g}/\text{m}^3$ ) did not exceed the Industrial SGSL and was not found in other samples.
  - Low concentrations of toluene were detected at concentrations exceeding laboratory reporting limits in the soil vapor samples collected at the Site; however, none of these concentrations exceeded the Industrial SGSL for toluene (as high as 1,300,000  $\mu\text{g}/\text{m}^3$ ). The maximum toluene concentration was reported as 106  $\mu\text{g}/\text{m}^3$ .
  - No other VOCs were detected at concentrations exceeding laboratory reporting limits.

The results for the soil gas samples are considered valid because the tracer compounds were not detected in the samples.

Based on the sampling results, PCE has been documented in soil vapor in the vicinity of Building B at concentrations exceeding screening levels, and PCE is also present in central and eastern portions of the Site in shallow zones at concentrations less than calculated screening levels.

Soil vapor analytical results are summarized in Table 5. Soil vapor analytical reports are attached in Appendix G.

## 10.9 WASTE HANDLING DISPOSAL

Soil cuttings and decontamination water were accumulated into one 55-gallon drum. The drum was sampled and is currently being profiled for disposal. Waste disposal information can be forwarded when available.





## 11.0 SUMMARY AND CONCLUSIONS

Farallon conducted a Phase I/II ESA for 5355 East Airport Drive in Ontario, California in conformance with the scope and limitations of ASTM E1527-13 and -21. Any exceptions to or deletions from this practice are described in Section 1.5, Deviations.

The Phase I ESA indicated that the Site consists of two parcels totaling 14.2 acres: Assessor Parcel No. 0238-052-20 (Eastern Parcel), and Assessor Parcel No. 0238-052-29 (Western Parcel). The Site is occupied by George Verhoeven Grain Inc. (dba Verhoeven Grain Inc.) and The Scoular Company, grain processing companies. Operations consist of the processing of raw grain, which is received by truck or by rail from the rail line north of the Site. The exact location of the rail line and associated spurs with respect to the northern Site boundary could not be confirmed in available files. Former petroleum USTs in two areas, former and active septic systems, and a vehicle maintenance garage (Building B) were found in association with the Site during the Phase I ESA portion of this assessment.

According to the Partner 2016 Phase II Report, 26 borings were advanced at depths between 1 and 25 feet bgs for the collection of soil and/or soil gas samples. Analytical results of soil gas samples indicated detections of VOCs including tetrachloroethene, trichloroethene, toluene, ethylbenzene, and xylenes. The concentrations of these detectable results were less than the residential and commercial/industrial calculated SGSLs at the time of the report beneath and west of Building B. However, the concentrations of PCE detected in five of the six soil gas samples contained PCE exceeding current commercial/industrial calculated SGSLs; these samples were collected from beneath and west of building B. Additionally, in comparison with the “low level” ethylbenzene SGSL, the ethylbenzene concentration in one soil vapor sample from this area exceeded the calculated soil gas commercial/industrial screening level of  $163 \mu\text{g}/\text{m}^3$ .

In March 2022, Farallon conducted soil and soil vapor sampling at the Site to assess former UST areas and septic systems, and the new building footprint for the potential for vapor intrusion issues. No underground structures were found in the survey, with the exception of the two septic tanks northeast of Building B. The scope of work for the Phase II ESA portion of this assessment included the advancement of 12 soil borings and installation of 10 temporary soil vapor probe locations with single- or multi-depth nested vapor points and two sub-slab soil vapor sampling points for the collection of soil and/or soil vapor samples. The Phase II ESA portion of this assessment was conducted on March 4 and 11, 2022.

No TPH or VOCs were detected exceeding laboratory detection limits in the soil samples collected from the Site. Low concentrations of naturally occurring metals including barium, cadmium, cobalt, chromium, copper, nickel, lead, vanadium, and zinc were detected in two soil samples submitted for analysis; these concentrations were considerably less than screening levels.

Based on sub-slab soil vapor data, soil vapor beneath the slab at Building B contains PCE exceeding calculated screening levels. PCE is present west of Building B at concentrations exceeding current calculated industrial screening levels using the 0.03 attenuation factor, but less than screening levels using the less conservative attenuation factors. PCE was also detected in



shallow soil vapor in the central and eastern portions of the Site at concentrations less than calculated screening levels in the shallow zones assessed. One concentration of PCE was detected exceeding calculated screening levels in the deeper sample collected from the vicinity of the two former 12,000-gallon USTs north of the grain mill area; the shallow soil vapor collected from this boring did not contain PCE exceeding calculated screening levels. The extent of PCE in soil vapor was not fully characterized.

Based on review of the Site history, including subsurface investigation reports, interviews with persons knowledgeable about the Site, reconnaissance of the Site, review of regulatory agency lists, and the completion of subsurface investigation at the Site, this Phase I/II ESA identified the following recognized environmental condition in connection with the Site:

- PCE impacts potentially associated with the use and storage of hazardous materials at Building B could contribute to vapor intrusion conditions on the Site.

In addition, Farallon identified the following historical recognized environmental conditions in association with the Site:

- Previous environmental reports note that one or more USTs were historically located west of Building B. Farallon was not able to find information regarding the UST in regulatory files, but did find some information regarding three to four diesel and unleaded gasoline USTs ranging in capacity from 4,000 to 10,000 gallons at unspecified locations at the Site preceding the presence of the three known 12,000-gallon USTs (noted in the grain mill area and southeast of Building C). In 2016, Partner conducted a subsurface investigation in this area and did not identify evidence of a petroleum release.
- In 2002, Tank Specialists of California removed a 12,000-gallon diesel steel UST and fuel dispenser mapped southeast of Building C. According to the letter regarding Soil Sampling Following the Removal of an Underground Storage Tank – Coast Grain Co., 5355 E. Airport Drive, Ontario, California dated December 18, 2002, from Advanced GeoEnvironmental, Inc., three confirmatory soil samples were collected beneath the bottom of the UST after removal, and soil samples were collected from stockpiles. The soil samples were analyzed for TPH as diesel; benzene, toluene, ethylbenzene, and xylenes; and methyl tertiary-butyl ether. Minor petroleum impacts were noted in stockpiled soil (800 milligrams per kilogram of TPH as diesel), which was reportedly used as backfill for the excavation. No constituents of concern were detected in the confirmatory soil samples collected from beneath the UST. Advanced GeoEnvironmental, Inc. recommended that SBCFD Hazardous Materials Division issue closure of the UST; and the letter regarding Removal of One Underground Storage Tank at Coast Grain Inc., Located at 5355 E. Airport Drive, Ontario, California dated January 8, 2002, from SBCFD was issued indicating that further investigation was not warranted.
- Based on sampling conducted as part of this Phase I/II ESA, no release was found in connection with the two 12,000-gallon “fuel storage” USTs historically located at the grain mill, which were removed from the Site in 1998. A No Further Action determination issued by SBCFD indicated that residual impacts were present, although “below that which is



generally considered a problem.” PCE was detected in a shallow soil vapor sample collected from this area at a concentration less than calculated screening levels.

The vehicle wash-down area located north of Building B was used for washing trucks (including molasses transportation trucks) and is no longer used. According to Site personnel, only truck exteriors were washed (not engines). Given the nature of use and that wash water was routed to an AST, with no discharge, the vehicle wash-down area is considered a de minimis condition for the Site. No release was found in the vicinity of the septic tanks located east of Building B, which provides a disposal pathway for a building that is known to have used chlorinated solvents and vehicular fluids.

Because two or three potential on-Site septic systems on the Western Parcel, located north of Building A and southeast of Building E, appear to be used for domestic sewer, with limited hazardous material use in the proximity that could be introduced to the septic systems as a release pathway, the presence of those septic systems is considered a de minimis condition for the Site. Additionally, the presence of petroleum ASTs with secondary containment and/or no evidence of leaking, rail spurs within or along the northern property boundary, transformers with no evidence of leaking, and underground grain conveyance systems are considered de minimis conditions for the Site. Further, based on the location and nature of use (boiler blow-down), the former brine pond located in the vicinity of the northern property line is also considered a de minimis condition for the Site.

At the request of Prologis, Farallon has included additional opinions and recommendations for the Site beyond those specified in ASTM E1527-13 and -21 for de minimis and recognized environmental conditions.

Based on the findings from this Phase I/II ESA, Farallon recommends preparation of a Media Management Plan for use during Site redevelopment to address any unexpected impacts to soil associated with historical activities at the Site, and to address any issues related to the former brine pond, underground grain conveyance systems, septic systems, and former USTs at the Site. Additionally, because PCE has been documented in soil vapor in the vicinity of Building B at concentrations exceeding calculated screening levels, and PCE was detected at concentrations in shallow soil vapor less than the calculated RSLs in other soil gas samples collected at the Site, the potential for vapor intrusion issues into the planned new Site building should be addressed. Additional investigation and characterization are recommended to delineate and design mitigation measures for PCE in soil vapor that may impact indoor air in the future building.



## 12.0 REFERENCES

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## 13.0 LIMITATIONS

### 13.1 GENERAL LIMITATIONS

The conclusions contained in this report/assessment are based on professional opinions with regard to the subject matter. These opinions have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location. The conclusions contained herein are subject to the following inherent limitations:

- **Accuracy of Information.** Farallon obtained, reviewed, and evaluated certain information used in this report/assessment from sources that were believed to be reliable. Farallon's conclusions, opinions, and recommendations are based in part on such information. Farallon's services did not include verification of its accuracy or authenticity. Should the information upon which Farallon relied prove to be inaccurate or unreliable, Farallon reserves the right to amend or revise its conclusions, opinions, and/or recommendations.
- **Reconnaissance and/or Characterization.** Farallon performed a reconnaissance and/or characterization of the Site that is the subject of this report/assessment to document current conditions. Farallon focused on areas deemed more likely to exhibit hazardous materials conditions. Contamination may exist in other areas of the Site that were not investigated or were inaccessible. Site activities beyond Farallon's control could change at any time after the completion of this report/assessment.

For the foregoing reasons, Farallon cannot and does not warrant or guarantee that the Site is free of hazardous or potentially hazardous substances or conditions, or that latent or undiscovered conditions will not become evident in the future. Farallon's observations, findings, and opinions can be considered valid only as of the date of the report.

This report/assessment has been prepared in accordance with the contract for services between Farallon and Prologis, Inc. and currently accepted industry standards. No other warranties, representations, or certifications are made.

### 13.2 LIMITATION ON RELIANCE BY THIRD PARTIES

**Reliance by third parties is prohibited.** This report/assessment has been prepared for the exclusive use of Prologis, Inc. to address the unique needs of Prologis, Inc. at the Site at a specific point in time.

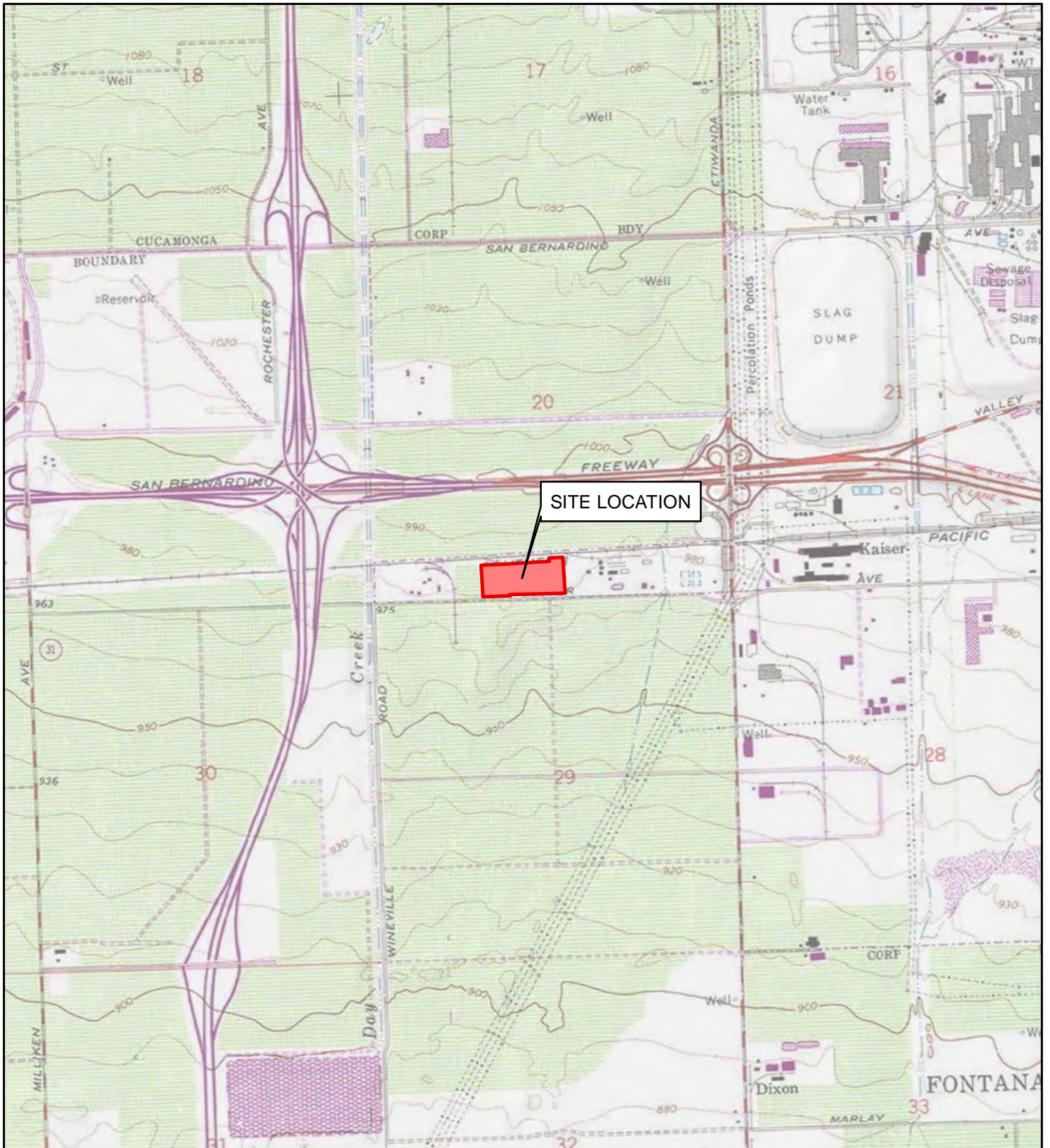
This is not a general grant of reliance. No one other than Prologis, Inc. may rely on this report unless Farallon agrees in advance to such reliance in writing. Any unauthorized use, interpretation, or reliance on this report/assessment is at the sole risk of that party, and Farallon will have no liability for such unauthorized use, interpretation, or reliance.

## **FIGURES**

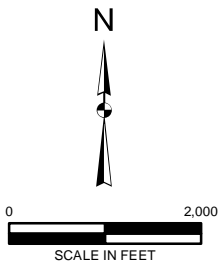
**PHASE I/PHASE II  
ENVIRONMENTAL SITE ASSESSMENT REPORT  
5355 East Airport Drive  
Ontario, California**

**Farallon PN: 1071-080 (Task 2)**





REFERENCE: 7.5 MINUTE USGS QUADRANGLE GUASTI, CALIFORNIA, DATED 2013



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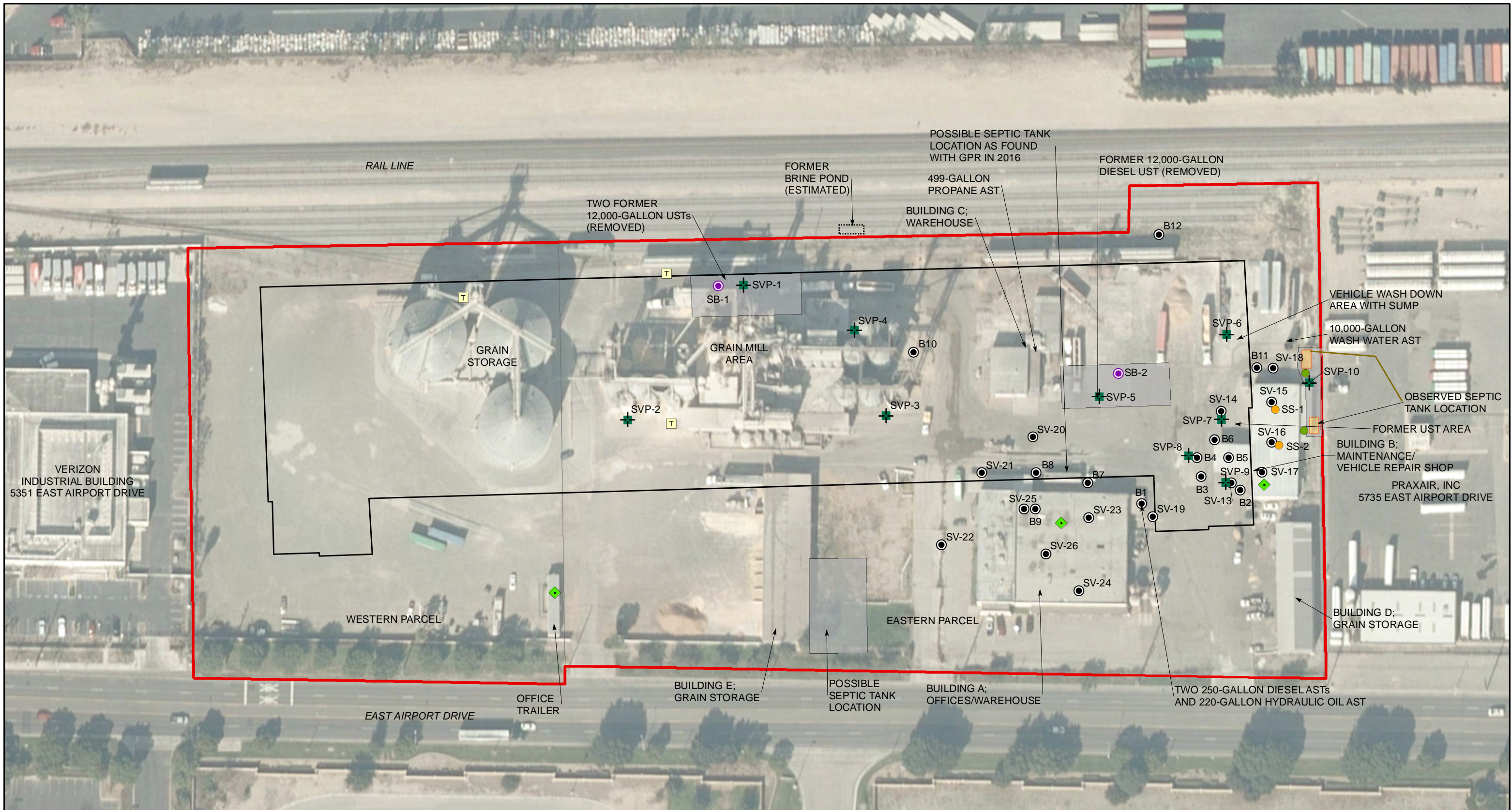
Washington  
Issaquah | Bellingham | Seattle

Oregon  
Portland | Baker City

California  
Oakland | Irvine

**FIGURE 1**  
SITE VICINITY MAP  
5355 EAST AIRPORT DRIVE  
ONTARIO, CALIFORNIA

Drawn By: sgaynier      Checked By: HH      Date: 12/23/2021      Disc Reference:  
Q:\Projects\1071 Prologis\080 2021 SoCal Due Diligence II\002 Airport Dr\Mapfiles\Ph1\Figure-01\_SiteVicinity.mxd

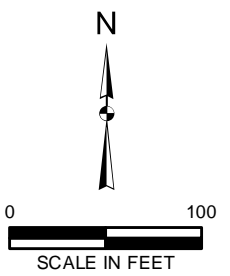


- LEGEND**
- + SOIL VAPOR PROBE (FARALLON, 2022)
  - GRAB SAMPLE (FARALLON, 2022)
  - BORING (FARALLON, 2022)
  - BORING (PARTNER, 2016)
  - ◆ HAZARDOUS MATERIALS STORAGE AREA
  - SEPTIC TANK
  - T TRANSFORMER

- FORMER SITE FEATURE
- OBSERVED TANK LOCATION
- GROUND-PENETRATING RADAR SCAN AREA
- PROPOSED BUILDING FOOTPRINT
- SITE BOUNDARY
- SAN BERNARDINO COUNTY PARCEL BOUNDARY

GPR SURVEY AREA - 2022 (NO UST FOUND)  
 GPR = GROUND-PENETRATING RADAR  
 UST = UNDERGROUND STORAGE TANK  
 AST = ABOVEGROUND STORAGE TANK

NOTES:  
 1. ALL LOCATIONS ARE APPROXIMATE.  
 2. FIGURES WERE PRODUCED IN COLOR.  
 GRAYSCALE COPIES MAY NOT REPRODUCE ALL ORIGINAL INFORMATION.



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**FIGURE 2**

**SITE PLAN AND SAMPLING LOCATIONS**

5355 EAST AIRPORT DRIVE  
ONTARIO, CALIFORNIA

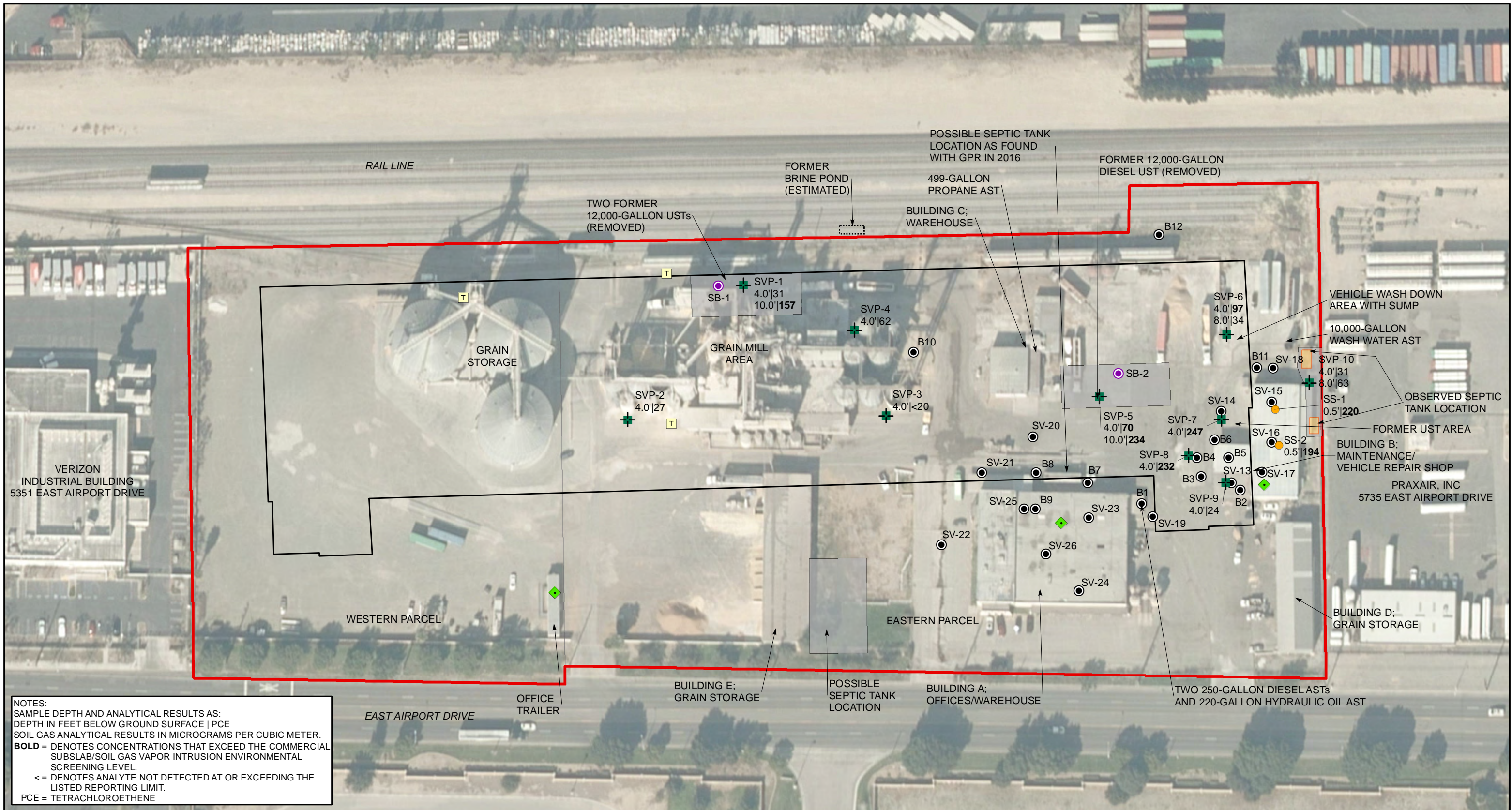
FARALLON PN: 1071-080-002

Drawn By: jjones

Checked By: KL

Date: 3/24/2022

Disc Reference: Q:\Projects\1071 Prologis\080 2021 SoCal Due Diligence\1002 Airport Dr\Mapfiles\Ph1\Figure-02\_SitePlan\_SampleLcs.mxd

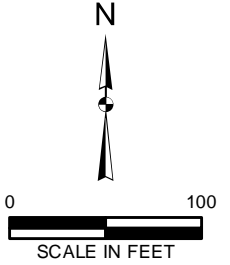


NOTES:  
 SAMPLE DEPTH AND ANALYTICAL RESULTS AS:  
 DEPTH IN FEET BELOW GROUND SURFACE | PCE  
 SOIL GAS ANALYTICAL RESULTS IN MICROGRAMS PER CUBIC METER.  
**BOLD** = DENOTES CONCENTRATIONS THAT EXCEED THE COMMERCIAL  
 SUBSLAB/SOIL GAS VAPOR INTRUSION ENVIRONMENTAL  
 SCREENING LEVEL.  
 <= DENOTES ANALYTE NOT DETECTED AT OR EXCEEDING THE  
 LISTED REPORTING LIMIT.  
 PCE = TETRACHLOROETHENE

LEGEND	
	SOIL VAPOR PROBE (FARALLON, 2022)
	GRAB SAMPLE (FARALLON, 2022)
	BORING (FARALLON, 2022)
	BORING (PARTNER, 2016)
	HAZARDOUS MATERIALS STORAGE AREA
	TRANSFORMER
	FORMER SITE FEATURE
	PROPOSED BUILDING FOOTPRINT
	OBSERVED TANK LOCATION
	GROUND-PENETRATING RADAR SCAN AREA
	SITE BOUNDARY
	SAN BERNARDINO COUNTY PARCEL BOUNDARY

GPR SURVEY AREA - 2022 (NO UST FOUND)  
 GPR = GROUND-PENETRATING RADAR  
 UST = UNDERGROUND STORAGE TANK  
 AST = ABOVEGROUND STORAGE TANK

NOTES:  
 1. ALL LOCATIONS ARE APPROXIMATE.  
 2. FIGURES WERE PRODUCED IN COLOR.  
 GRAYSCALE COPIES MAY NOT REPRODUCE  
 ALL ORIGINAL INFORMATION.



Washington  
Issaquah | Bellingham | Seattle

Oregon  
Portland | Baker City

California  
Oakland | Irvine

Drawn By: jjones      Checked By: KL      Date: 3/24/2022

**FIGURE 3**

PCE IN SOIL VAPOR  
 5355 EAST AIRPORT DRIVE  
 ONTARIO, CALIFORNIA

FARALLON PN: 1071-080-002

Disc Reference:  
 Q:\Projects\1071 Prologis\080 2021 SoCal Due Diligence \I\002 Airport Dr\Mapfiles\Ph1\Figure-03\_PCE\_SV.mxd

## **TABLES**

**PHASE I/PHASE II  
ENVIRONMENTAL SITE ASSESSMENT REPORT  
5355 East Airport Drive  
Ontario, California**

**Farallon PN: 1071-080 (Task 2)**

**Table 1  
Sampling Rationale  
5355 East Airport Road  
Ontario, California  
Farallon PN: 1071-080-002**

Sample ID	Location	Rationale	Matrix Sampled	Boring Depth (feet bgs)	Sample Depth and Analysis (feet bgs)		
SB-1	Former 12,000-gallon petroleum USTs (two)*	To assess former USTs and assess the potential for soil vapor under the future building	Soil	10	10 feet VOCs, TPH		
SVP-1			Soil		10 feet VOCs, TPH		
			Soil Vapor		4 feet VOCs, TPH-g 10 feet VOCs, TPH-g		
SVP-2	Planned New Building Footprint	Assess the potential for soil vapor under the future building	Soil	4	4 feet VOCs, TPH-g		
SVP-3			Soil Vapor		4 feet VOCs, TPH-g		
			SVP-4	Soil	4	4 feet VOCs, TPH-g	
Soil Vapor				4 feet VOCs, TPH-g			
SB-2			Former 12,000-gallon diesel UST east of Building C	To assess the former UST and assess the potential for soil vapor under the future building	Soil	10	10 feet VOCs, TPH
SVP-5					Soil		10 feet VOCs, TPH
	Soil Vapor	4 feet VOCs, TPH-g 10 feet VOCs, TPH-g					
SVP-6	Vehicle wash-down area with sump	To assess the vehicle wash-down area with sump and assess the potential for soil vapor under the future building	Soil	8	4 feet VOCs, TPH, Metals 8 feet VOCs, TPH, Metals		
			Soil Vapor		4 feet VOCs, TPH-g 8 feet VOCs, TPH-g		
SVP-7	Former PCE impacts	Assess the potential for soil vapor under the future building	Soil	4	4 feet VOCs, TPH		
			Soil Vapor		4 feet VOCs, TPH-g		
SVP-8	Former PCE impacts	Assess the potential for soil vapor under the future building	Soil	4	4 feet VOCs, TPH		
			Soil Vapor		4 feet VOCs, TPH-g		
SVP-9	Former PCE impacts	Assess the potential for soil vapor under the future building	Soil	4	4 feet VOCs, TPH		
			Soil Vapor		4 feet VOCs, TPH-g		
SVP-10	Building B Septic System	Assess the Building B Septic System	Soil	8	8 feet VOCs, TPH		
			Soil Vapor		4 feet VOCs, TPH-g 8 feet VOCs, TPH-g		
SS-1	Former PCE impacts	Assess current subslab conditions under Building B and to assess the potential for soil vapor under the future building	Soil Vapor	SS	0.5 foot VOCs, TPH-g		
SS-2	Former PCE impacts		Soil Vapor	SS	0.5 foot VOCs, TPH-g		

NOTES:  
SS = subslab  
TPH = total petroleum hydrocarbons  
TPH-g = total petroleum hydrocarbons as gasoline  
UST = underground storage tank

VOCs = volatile organic compounds  
bgs = below ground surface  
PCE = tetrachloroethene

**Table 2**  
**Summary of Volatile Organic Compounds in Soil**  
**5355 East Airport Road**  
**Ontario, California**  
**Farallon PN: 1071-080-002**

Sample Location	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	Analytical Results (micrograms per kilogram) <sup>2</sup>					
				Tetrachloroethene	Benzene	Toluene	Ethylbenzene	Total Xylenes	Other VOCs
SB-1	SB-1-10'	10.0	3/4/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	ND
SB-2	SB-1-10'	10.0	3/4/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	ND
SVP-1	SVP-1-10'	10.0	3/4/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	ND
SVP-2	SVP-2-4'	4.0	3/4/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	ND
SVP-3	SVP-3-4'	4.0	3/4/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	ND
SVP-4	SVP-4-4'	4.0	3/4/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	ND
SVP-5	SVP-5-10'	10.0	3/4/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	ND
SVP-6	SVP-6-4'	4.0	3/4/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	ND
	SVP-6-8'	8.0	3/4/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	ND
SVP-7	SVP-7-4'	4.0	3/4/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	ND
SVP-8	SVP-8-4'	4.0	3/4/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	ND
SVP-9	SVP-9-4'	4.0	3/4/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	ND
SVP-10	SVP-10-8'	8.0	3/4/2022	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	ND
<b>Commercial/Industrial Soil RSL<sup>3</sup></b>				<b>2,700</b>	<b>1,400</b>	<b>5.3E+06</b>	<b>25,000</b>	<b>2.5E+06</b>	<b>NA</b>

**NOTES:**

Results in **bold** and highlighted **yellow** denote concentrations exceeding applicable RSLs for the current property use (industrial/commercial).

< denotes analyte not detected at or exceeding the reporting limit listed.

<sup>1</sup>Depth in feet below ground surface.

<sup>2</sup>Analyzed by U.S. Environmental Protection Agency (EPA) Method 8260B. Only detected VOCs shown in table; see lab report for full list of analytes.

<sup>3</sup>June 2020 Department of Toxic Substances Control (DTSC) Regional Screening Levels (RSLs). If DTSC RSLs do not exist, April 2020 EPA RSLs were used and noted in blue text.

NA = not applicable

ND = not detected above the laboratory reporting limit

NE = not established

RSL = Regional Screening Level

VOCs = volatile organic compounds

**Table 3**  
**Summary of Total Petroleum Hydrocarbons in Soil**  
**5355 East Airport Road**  
**Ontario, California**  
**Farallon PN: 1071-080-002**

Sample Location	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	Analytical Results (milligrams per kilogram) <sup>2</sup>		
				TPH-g (C4 - C12)	TPH-d (C13 - C22)	TPH-o (C23 - C40)
SB-1	SB-1-10'	10.0	3/4/2022	< 0.20	< 10.0	< 10.0
SB-2	SB-1-10'	10.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-1	SVP-1-10'	10.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-2	SVP-2-4'	4.0	3/4/2022	< 0.20	---	---
SVP-3	SVP-3-4'	4.0	3/4/2022	< 0.20	---	---
SVP-4	SVP-4-4'	4.0	3/4/2022	< 0.20	---	---
SVP-5	SVP-5-10'	10.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-6	SVP-6-4'	4.0	3/4/2022	< 0.20	< 10.0	< 10.0
	SVP-6-8'	8.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-7	SVP-7-4'	4.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-8	SVP-8-4'	4.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-9	SVP-9-4'	4.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-10	SVP-10-8'	8.0	3/4/2022	< 0.20	< 10.0	< 10.0
<b>MSSL (&lt; 20 feet Above Groundwater)<sup>3</sup></b>				<b>100</b>	<b>100</b>	<b>1,000</b>
<b>MSSL (20-150 feet Above Groundwater)<sup>3</sup></b>				<b>500</b>	<b>1,000</b>	<b>10,000</b>
<b>MSSL (&gt; 150 feet Above Groundwater)<sup>3</sup></b>				<b>1,000</b>	<b>10,000</b>	<b>50,000</b>

**NOTES:**

Results in **bold** and highlighted **yellow** denote concentrations exceeding applicable RSLs for the current property use (industrial/commercial).

< denotes analyte not detected at or exceeding the reporting limit listed.

--- denotes sample not analyzed.

<sup>1</sup>Depth in feet below ground surface.

<sup>2</sup>Analyzed by U.S. Environmental Protection Agency (EPA) Method 8015M.

<sup>3</sup>Los Angeles Regional Water Quality Control Board April 27, 2004 MSSLs for groundwater at depths of less than 20 feet, 20 to 150 feet, and greater than 150 feet below ground surface.

C = carbon range (number of carbons)

MSSL = maximum soil screening level

TPH-d = total petroleum hydrocarbons as diesel

TPH-g = total petroleum hydrocarbons as gasoline

TPH-o = total petroleum hydrocarbons as oil

**Table 4**  
**Summary of Metals in Soil**  
**5355 East Airport Road**  
**Ontario, California**  
**Farallon PN: 1071-080-002**

Sample Location	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	Analytical Results (milligrams per kilogram) <sup>2</sup>									
				Barium	Cadmium	Chromium	Cobalt	Copper	Lead	Nickel	Vanadium	Zinc	Other Metals
SVP-6	SVP-6-4'	4.0	3/4/2022	61.2	0.9	8.2	5.2	5.9	1.1	5.2	24.6	26.5	ND
	SVP-6-8'	8.0	3/4/2022	59.6	0.9	8.5	5.2	6.0	1.2	5.2	23.1	27.0	ND
<b>Residential Soil RSL<sup>3</sup></b>				<b>15,000</b>	<b>2,100</b>	<b>NE</b>	<b>23</b>	<b>3,100</b>	<b>80</b>	<b>15,000</b>	<b>390</b>	<b>23,000</b>	Various
<b>Industrial Soil RSL<sup>3</sup></b>				<b>220,000</b>	<b>9,300</b>	<b>NE</b>	<b>350</b>	<b>47,000</b>	<b>320</b>	<b>64,000</b>	<b>1,000</b>	<b>350,000</b>	Various

NOTES:

Results in **bold** and highlighted **yellow** denote concentrations exceeding applicable RSLs for the current property use (industrial/commercial).

< denotes analyte not detected at or exceeding the reporting limit listed.

--- denotes sample not analyzed.

<sup>1</sup>Depth in feet below ground surface.

<sup>2</sup>California Administrative Manual (CAM) Priority Pollutant List (PPL) 17 metals analyzed by U.S. Environmental Protection Agency (EPA) Method 6010B by 3050B; mercury analyzed by EPA Method 7471A.

<sup>3</sup>June 2020 Department of Toxic Substances Control (DTSC) Regional Screening Levels (RSLs). If DTSC RSLs do not exist, May 2020 EPA RSLs were used and noted in blue text.



**Table 5**  
**Summary of Volatile Organic Compounds in Soil Vapor**  
**5355 East Airport Road**  
**Ontario, California**  
**Farallon PN: 1071-080-002**

Sample Location	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	AF	Analytical Results (micrograms per cubic meter) <sup>2</sup>				
					PCE	Dichloro difluoro-methane	Toluene	TPH-g	Other VOCs
<b>Sub-slab Samples</b>									
SS-1	SS-1	0.5	3/11/2022	---	<b>220</b>	< 40	< 20	< 5,000	ND
SS-2	SS-2	0.5	3/11/2022	---	<b>194</b>	< 40	< 20	< 5,000	ND
<b>Industrial SGSL For Sub-Slab<sup>3</sup></b>				<b>0.05</b>	<b>40</b>	<b>8800</b>	<b>26000</b>	<b>50000</b>	<b>Varies</b>
<b>Soil Vapor Samples</b>									
SVP-1	SVP-1-4'	4.0	3/11/2022	---	<b>31</b>	< 40	<b>21</b>	< 5,000	ND
	SVP-1-10'	10.0	3/11/2022	---	<b>157</b>	< 40	<b>21</b>	< 5,000	ND
SVP-2	SVP-2-4'	4.0	3/11/2022	---	<b>27</b>	< 40	<b>34</b>	< 5,000	ND
SVP-3	SVP-3-4'	4.0	3/11/2022	---	< 20	< 40	<b>78</b>	< 5,000	ND
	SVP-3-4'REP	4.0	3/11/2022	---	< 20	< 40	<b>45</b>	< 5,000	ND
SVP-4	SVP-4-4'	4.0	3/11/2022	---	<b>62</b>	< 40	<b>80</b>	< 5,000	ND
	SVP-4-4'REP	4.0	3/11/2022	---	<b>57</b>	< 40	<b>46</b>	< 5,000	ND
SVP-5	SVP-5-4'	4.0	3/11/2022	---	<b>70</b>	< 40	<b>83</b>	< 5,000	ND
	SVP-5-10'	10.0	3/11/2022	---	<b>234</b>	< 40	< 20	< 5,000	ND
SVP-6	SVP-6-4'	4.0	3/11/2022	---	<b>97</b>	< 40	<b>106</b>	< 5,000	ND
	SVP-6-8'	8.0	3/11/2022	---	<b>34</b>	< 40	<b>65</b>	< 5,000	ND
SVP-7	SVP-7-4'	4.0	3/11/2022	---	<b>247</b>	< 40	<b>91</b>	< 5,000	ND
SVP-8	SVP-8-4'	4.0	3/11/2022	---	<b>232</b>	< 40	<b>89</b>	< 5,000	ND
SVP-9	SVP-9-4'	4.0	3/11/2022	---	<b>24</b>	< 40	<b>87</b>	< 5,000	ND
SVP-10	SVP-10-4'	4.0	3/11/2022	---	<b>31</b>	< 40	<b>60</b>	< 5,000	ND
	SVP-10-8'	8.0	3/11/2022	---	<b>63</b>	<b>60</b>	<b>47</b>	< 5,000	ND
<b>Industrial SGSL For Soil Vapor<sup>3</sup></b>				<b>0.001</b>	<b>2000</b>	<b>440000</b>	<b>1,300,000</b>	<b>2,600,000</b>	<b>Varies</b>
<b>Calculated SGSL with 2015 Attenuation Factor (Industrial)<sup>3</sup></b>				<b>0.03</b>	<b>67</b>	<b>14667</b>	<b>43,333</b>	<b>86,667</b>	<b>Varies</b>

**NOTES:**

Results in **bold** denote concentrations detected above the laboratory reporting limit. Results in **bold** and highlighted **yellow** denote concentrations exceeding applicable RSLs for the current property use (industrial/commercial).  
 < denotes analyte not detected at or exceeding the reporting limit listed.  
 --- denotes not applicable

<sup>1</sup>Depth in feet below ground surface.

<sup>2</sup>Analyzed by U.S. Environmental Protection Agency (EPA) Method 8260B. Only detected VOCs shown in table; see lab report for full list of analytes.

<sup>3</sup>Calculated soil gas screening levels (SGSLs) were derived by dividing the April 2020 Department of Toxic Substances Control (DTSC) or June 2021 EPA Regional Screening Levels (shown in blue) for VOCs, and January 2019 SFBWQCB Environmental Screening Levels (ESLs) for TPH-g for indoor air by the noted attenuation factor.

ND = not detected at or above the laboratory reporting limit  
 PCE = Tetrachloroethylene  
 AF = Attenuation Factor

**APPENDIX A**  
**PROFESSIONAL QUALIFICATIONS**

PHASE I/PHASE II  
ENVIRONMENTAL SITE ASSESSMENT REPORT  
5355 East Airport Drive  
Ontario, California

Farallon PN: 1071-080 (Task 2)

**BRANT ROTNEM**  
Staff Geologist

BA Environmental Policy  
13 years' experience

Brant Rotnem is an Environmental Professional with over 13 years of experience in the environmental consulting industry. Professional experience includes project management, site inspection in support of environmental due diligence, and preparation of over 1,000 Phase I Environmental Site Assessment Reports. Brant also has prepared Transaction Screen Analyses, Limited Environmental Site Assessments, database reviews, peer reviews, and additional due diligence scopes.

**KATHY LEHNUS, L.E.P., P.G.**  
Senior Geologist

BSc Environmental Science  
MSc Applied Geology  
24 years' experience

Kathy Lehnus has 24 years of experience in the environmental consulting industry. Her professional experience includes conducting Phase I and Phase II Environmental Site Assessments, managing investigation and remediation projects led by the California Department of Toxic Substances Control and California Regional Water Quality Control Boards, investigating environmental impacts on investment portfolios, and providing oversight for soil and groundwater assessments. Kathy's key skills include preparation of investigation and remediation work plans, regulatory navigation, and project quality and process improvement, including developing new policies and updating standard operating procedures.

**SCOTT ALLIN, R.E.P.A.**  
Principal Environmental Scientist

BS Physical Science (Hydrology)  
30 years' experience

Scott Allin has 30 years of project and program management experience in the evaluation and reporting of environmental liability associated with the sale or Brownfield redevelopment of impaired properties. He has supported the needs of developers and others in the acquisition of Cost Cap and Finite Risk environmental insurance to manage long-term environmental risks. He has provided clients with value-added due diligence services for single properties and large multimillion-dollar mixed-use portfolios, both nationally and internationally. Scott has provided guidance for evaluating environmental risks during complex mergers and acquisitions; and management services for implementation of remedial actions, asbestos abatement, environmental audit programs, and environmentally sensitive property improvements.

**APPENDIX B**  
**SITE PHOTOGRAPHS**

PHASE I/PHASE II  
ENVIRONMENTAL SITE ASSESSMENT REPORT  
5355 East Airport Drive  
Ontario, California

Farallon PN: 1071-080 (Task 2)

## **SITE PHOTOGRAPHS**

### **Phase I Environmental Site Assessment Report**

**5355 East Airport Drive**

**Ontario, California**

**Farallon PN: 1071-080 (Task 2)**

**Photograph 1:** Verhoeven grain mill.

**Photograph 2:** Wash water storage tank by truck-washing area.

**Photograph 3:** Bermed truck-washing area by Building B.

**Photograph 4:** Sump in truck-washing area.

**Photograph 5:** Diesel fueling area by Building A.

**Photograph 6:** Former underground storage tank area by Building B.

**Photograph 7:** Former underground storage tank area by Verhoeven Building C.

**Photograph 8:** Former underground storage tank area north of grain mill.

**Photograph 9:** Hydraulic augers at Scoular grain storage silos.

**Photograph 10:** Scoular grain storage silos.

**Photograph 11:** Septic tank location by Building A.

**Photograph 12:** Rail transloading area.

**Photograph 13:** Railway offloading area.

**Photograph 14:** Scoular hazardous materials storage area.

**Photograph 15:** Verhoeven equipment service area in Building A.

**Photograph 16:** Hazardous materials storage in Verhoeven equipment service area in Building A.

**Photograph 17:** Automotive service area in Verhoeven Building B.

**Photograph 18:** Parts washing equipment in Building B.

**Photograph 19:** Waste oil storage in Building B.



**SITE PHOTOGRAPHS (continued)**  
**Phase I Environmental Site Assessment Report**  
**5355 East Airport Drive**  
**Ontario, California**



**Photograph 1:** Verhoeven grain mill.



**Photograph 2:** Wash water storage tank by truck-washing area.



**SITE PHOTOGRAPHS (continued)**  
**Phase I Environmental Site Assessment Report**  
**5355 East Airport Drive**  
**Ontario, California**



**Photograph 3:** Bermed truck-washing area by Building B.



**Photograph 4:** Sump in truck-washing area.



**SITE PHOTOGRAPHS (continued)**  
**Phase I Environmental Site Assessment Report**  
**5355 East Airport Drive**  
**Ontario, California**



**Photograph 5:** Diesel fueling area by Building A.



**Photograph 6:** Former underground storage tank area by Building B.





**SITE PHOTOGRAPHS (continued)**  
**Phase I Environmental Site Assessment Report**  
**5355 East Airport Drive**  
**Ontario, California**



**Photograph 7:** Former underground storage tank area by Verhoeven Building C.



**Photograph 8:** Former underground storage tank area north of grain mill.



**SITE PHOTOGRAPHS (continued)**  
**Phase I Environmental Site Assessment Report**  
**5355 East Airport Drive**  
**Ontario, California**



**Photograph 9:** Hydraulic augers at Scoular grain storage silos.



**Photograph 10:** Scoular grain storage silos.



**SITE PHOTOGRAPHS (continued)**  
**Phase I Environmental Site Assessment Report**  
**5355 East Airport Drive**  
**Ontario, California**



**Photograph 11:** Septic tank location by Building A.



**Photograph 12:** Rail transloading area.



**SITE PHOTOGRAPHS (continued)**  
**Phase I Environmental Site Assessment Report**  
**5355 East Airport Drive**  
**Ontario, California**



**Photograph 13:** Railway offloading area.



**Photograph 14:** Scouler hazardous materials storage area.



**SITE PHOTOGRAPHS (continued)**  
**Phase I Environmental Site Assessment Report**  
**5355 East Airport Drive**  
**Ontario, California**



**Photograph 15:** Verhoeven equipment service area in Building A.



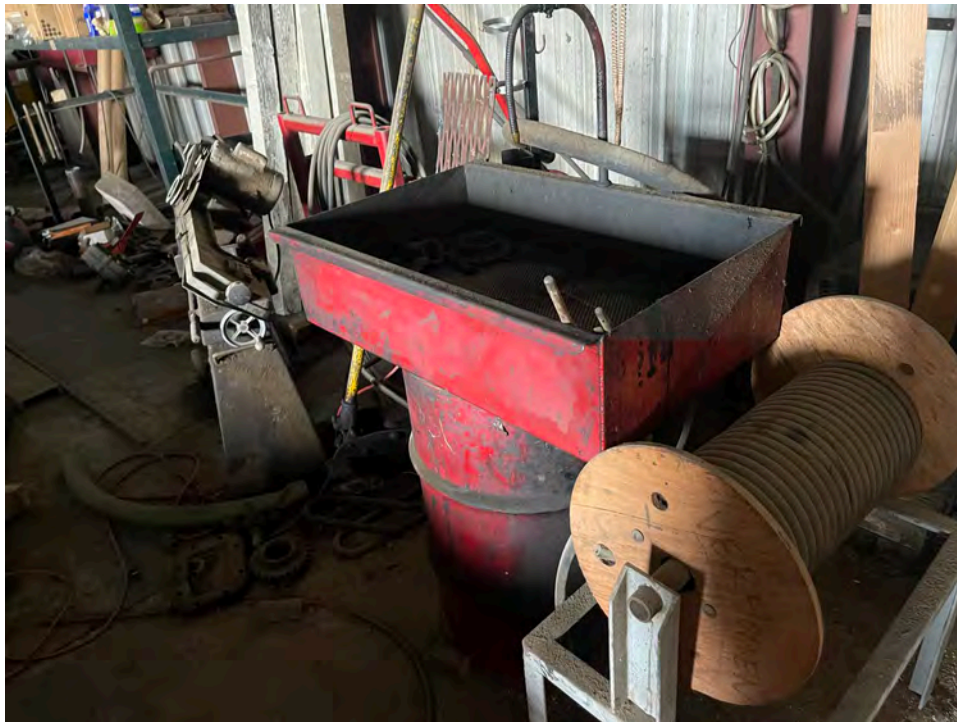
**Photograph 16:** Hazardous materials storage in Verhoeven equipment service area in Building A.



**SITE PHOTOGRAPHS (continued)**  
**Phase I Environmental Site Assessment Report**  
**5355 East Airport Drive**  
**Ontario, California**



**Photograph 17:** Automotive service area in Verhoeven Building B.



**Photograph 18:** Parts washing equipment in Building B.



**SITE PHOTOGRAPHS (continued)**  
**Phase I Environmental Site Assessment Report**  
**5355 East Airport Drive**  
**Ontario, California**



**Photograph 19:** Waste oil storage in Building B.

## SOIL GAS INVESTIGATION REPORT

5355 East Airport Drive  
Ontario, California

Submitted by:  
Farallon Consulting, L.L.C.  
27 Mauchly, Suite 213  
Irvine, California 92618

Farallon PN: 1071-080 (Task 2)

For:  
Prologis, L.P.  
Pier 1, Bay 1  
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February 14, 2023

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## 1.0 INTRODUCTION

Farallon Consulting, L.L.C. (Farallon) has prepared this Soil Gas Investigation Report (Soil Gas Report) for Prologis, L.P. (Prologis) to present a summary of results from the soil gas investigation conducted in December 2022 at the property at 5355 East Airport Drive in Ontario, California (herein referred to as the Site) (Figure 1). The soil gas investigation was conducted to provide additional assessment of the potential for vapor intrusion related to tetrachloroethene (PCE), which was detected inconsistently in soil gas during subsurface investigations conducted by Partner Engineering and Science, Inc (Partner) in July 2016 and Farallon in February and September 2022. The scope of work for the historical investigations was based on the recognized environmental conditions and subsurface investigation findings identified in the Partner Phase II Subsurface Investigation Report (2016 SI Report),<sup>1</sup> the Farallon Phase I/Phase II Environmental Site Assessment Report (Phase I/II Report),<sup>2</sup> and the Farallon Additional Subsurface Investigation Report.<sup>3</sup> The potential for constituents of concern (COCs) to be present in Site subsurface media was identified as recognized environmental conditions due to petroleum underground storage tanks (USTs) formerly present in three areas, former and active septic systems, and a vehicle maintenance garage ("Building B"). These features are depicted on Figure 2.

According to the 2016 SI Report, the Phase I/II Report, and the Additional Subsurface Investigation Report, tetrachloroethene (PCE) was detected at concentrations exceeding calculated industrial screening levels using a 0.03 attention factor in soil gas in several areas during the July 2016 and March 2022 sampling events, but not during the September 2022 sampling event. Additional investigation was recommended to address the potential for vapor intrusion conditions at the warehouse proposed for construction at the Site. This soil gas investigation was conducted to provide that additional investigation. Additionally, Prologis requested that methane be screened during the soil gas investigation. The scope of work for the soil gas investigation was presented in Work Change Order 1071-080-002-WCO 004<sup>4</sup> and the general locations, depths, rationale for the borings, and analytes are shown in Table 1. Sample locations at the Site are shown on Figure 2.

This Soil Gas Report has been organized into the following sections:

- **Section 2, Site Background**, provides a description of the Site, and summarizes pertinent background information regarding its history and previous investigations conducted at the Site.

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<sup>1</sup> *Phase II Subsurface Investigation Report, 5355 East Airport Drive, Ontario, California* dated August 16, 2016, prepared for Prologis, Inc. by Partner (2016).

<sup>2</sup> *Phase I/Phase II Environmental Site Assessment Report, 5355 East Airport Drive, Ontario, California* dated March 31, 2022 prepared by Farallon (2022a) for Prologis.

<sup>3</sup> *Additional Subsurface Investigation Report, 5355 East Airport Drive, Ontario, California* dated December 13, 2022 prepared for Prologis, Inc. by Farallon (2022c).

<sup>4</sup> Work Change Order 1071-080-002-WCO 004, Master Services Agreement, Farallon Consulting, L.L.C. and Prologis, Inc. dated December 5, 2022 between Gavin Polite Fisco of Prologis and Scott Allin of Farallon (2022b).



- **Section 3, Physical Setting**, describes the topography, geology, and hydrogeology of the Site.
- **Section 4, Soil Gas Investigation**, provides a description of the scope of work conducted as part of the additional soil gas investigation, and a summary of soil gas analytical results.
- **Section 5, Conclusions and Recommendations**, presents Farallon’s conclusions from the additional subsurface investigation, and recommendations based on the results.
- **Section 6, References**, provides a list of the documents cited in this Soil Gas Report.
- **Section 7, Limitations**, presents Farallon’s standard limitations applicable to this Soil Gas Report.



## 2.0 SITE BACKGROUND

This section provides a description of the Site and summarizes pertinent background information regarding its history and previous investigations conducted at the Site.

### 2.1 SITE DESCRIPTION

The Site consists of two parcels totaling 14.2 acres of land: San Bernardino County Assessor Parcel Nos. 0238-052-20 (Eastern Parcel), and 0238-052-29 (Western Parcel). The Eastern Parcel is occupied by Verhoeven, a grain-processing company, and is developed with five buildings, grain storage silos, and a grain mill area. An office and warehouse building, referred to as “Building A,” is located on the southern portion of the Site. The warehouse portion on the northeastern side of Building A contains a service shop used to repair machinery related to the grain mill. A maintenance shop, referred to as “Building B,” is present on the eastern portion of the Site, and is used for light tractor and forklift services. Additional structures on the Eastern Parcel consist of a warehouse referred to as “Building C” on the north-central portion, used for assorted storage, and two grain storage structures on the southeastern and southwestern portions of the parcel, referred to as Buildings D and E, respectively.

The Western Parcel is occupied by The Scoular Company, a corn storage and distribution facility. The Western Parcel contains exterior grain storage areas, and an office trailer that contains a small hazardous substances storage area on secondary containment.

The Site is primarily asphalt-paved, with some gravel-paved areas on the western parcel. Access to the Site is gained from East Airport Drive, south of the Site.

A vehicle wash-down area with a sump is present on the northeastern portion of the Eastern Parcel. Three or four septic systems are associated with the Site: two or three on the Eastern Parcel, and one on the Western Parcel. The location of the septic system on the Western Parcel could not be determined from the records reviewed. A 499-gallon propane aboveground storage tank (AST), two 250-gallon diesel fuel ASTs, and a 220-gallon hydraulic oil AST are present on the Eastern Parcel. Two 12,000-gallon “fuel-storage” USTs formerly were located on the north-central portion of the Site near the grain mill area. A 12,000-gallon diesel fuel UST formerly was located southeast of Building C. The area west of Building B was identified as the former location of one or more additional USTs.

### 2.2 SITE HISTORY

The Site was used as agricultural or grazing land from at least the late 1930s to the early 1970s. By 1973, the Eastern Parcel was developed with small grain storage silos and other features associated with milling operations in the grain mill area. By 1975, grain appeared to be stockpiled in Buildings A through C, located on the southwestern portion of the Site. By 1985 grain storage structures Buildings D and E had been developed. By 2002, grain processing operations at the Site had expanded to the Western Parcel, which included the



development of three large grain storage silos. The Site has appeared in its current configuration since 2002.

Site occupants have consisted of Verhoeven from 1973 to the present; Chino Grain and Milling, Inc. in 1985; Coast Grain Company from 1990 to 2003; The Scoular Company between 2004 and the present; and JD Heistell and Company in 2009.

## 2.3 PREVIOUS INVESTIGATIONS

Partner's 2016 SI Report documented an investigation conducted at the Site. The scope of work consisted of a geophysical survey to identify former on-Site USTs or associated features and reported septic systems, and soil and soil gas sampling to assess for indications of a release from historical Site activities. The geophysical survey identified one large anomaly indicative of a backfilled UST excavation beneath the western canopy of Building B, which generally corresponds to the location of a former UST area. No large metallic features were identified, so Partner concluded that USTs formerly present in the area had been removed. One large anomaly resembling a septic system was identified north of Building A.

Partner advanced 26 borings with total depths ranging from 1 to 25 feet below ground surface (bgs) for collection of soil and/or soil gas samples. Soil samples were analyzed for total petroleum hydrocarbon carbon chain C6-C40 (TPH-cc) by U.S. Environmental Protection Agency (EPA) Method 8015C and for volatile organic compounds (VOCs) by EPA Method 8260B. Soil gas samples were analyzed for VOCs by either EPA Methods TO-14, TO-15, or 8260B. VOCs and TPH-cc were not detected in soil samples at concentrations exceeding laboratory reporting limits (Tables 2 and 3). VOCs, consisting of PCE, trichloroethene, toluene, ethylbenzene, and xylenes, were detected in soil gas samples at concentrations less than residential and industrial calculated soil gas screening levels in effect at the time the report was completed. Partner concluded that a discernable vapor intrusion condition did not appear to exist at the Site, and that the detections of VOCs in soil gas did not represent a threat to human health or the environment. Partner recommended no further investigation with respect to the on-Site grain-handling facility at the time of the report.

Although the reported concentrations of VOCs in soil gas were less than soil gas screening levels (SGSLs) in effect in 2016 at the time the Partner report was prepared, in April 2020, California Department of Toxic Substances Control (DTSC) Human and Ecological Risk Office (2022) Human Health Risk Assessment Note Number 3 (HHRA Note 3) was updated with the recommendation to use a more-conservative attenuation factor of 0.03 in screening level calculations. PCE concentrations ranging from 68 to 230 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) in soil gas samples collected by Partner in 2016 from sampling locations B5, B6, and SV-14 through SV-16 exceeded the calculated industrial SGSL of  $67 \mu\text{g}/\text{m}^3$  using the 0.03 attenuation factor. Additionally, the ethylbenzene concentration of  $280 \mu\text{g}/\text{m}^3$  in soil gas sample B4-SG, located west of Building B, exceeded the calculated industrial SGSL of  $163 \mu\text{g}/\text{m}^3$  using the 0.03 attenuation factor. These samples were collected west of and beneath Building B at a depth of 4 to 5 feet bgs. Soil gas results from Partner's 2016 SI Report and



calculated SGSLs using the 2020 HHRA Note 3 attenuation fraction of 0.03 are presented in Table 5.

As part of its Phase I/II due diligence investigation, Farallon conducted soil and soil gas sampling at the Site in March 2022, focusing on assessing former UST areas and septic systems, and the proposed new building footprint for the potential for vapor intrusion issues. At the time of the assessment, Farallon was informed that an approximately 259,000-square-foot warehouse would be constructed on the north-central portion of the Site (Figure 2). The scope of work for the Phase II Environmental Site Assessment portion of the investigation included advancement of 12 borings, installation of two subslab gas probes, and installation of 10 temporary soil gas probe locations with single- or multi-depth nested gas points for collection of soil and soil gas samples.

VOCs and TPH-cc were not detected at concentrations exceeding laboratory reporting limits (Tables 2 and 3) in soil samples. Metals were either not detected in soil samples at concentrations exceeding laboratory reporting limits, or at concentrations less than screening levels (Table 4). Soil gas data indicated that PCE was present at concentrations exceeding calculated industrial SGSLs using the 0.03 attenuation factor in soil gas samples collected west of and beneath Building B (samples SS-1, SS-2, SVP-7, and SVP-8), proximate to the location of the former 12,000-gallon diesel fuel UST (sample SVP-5), proximate to the location of the two former 12,000-gallon USTs (sample SVP-1), and proximate to the vehicle washdown area with sump (sample SVP-6) as presented in Table 5. These locations were mapped beneath the planned new building footprint. PCE also was detected at concentrations less than the calculated industrial SGSLs in soil gas in other soil gas samples collected at the Site. The extent of PCE in soil gas was not fully characterized.

In September 2022, to further assess soil gas beneath the planned building footprint, Farallon advanced nine borings, designated SVP-11 through SVP-19, at the Site within the planned new building footprint. Dual-nested soil gas probes were constructed in each boring to investigate the potential presence of VOCs in soil gas beneath the planned new building. PCE was not detected at concentrations exceeding the laboratory reporting limit of 25  $\mu\text{g}/\text{m}^3$  in the soil gas samples collected from the soil gas probes. Ethylbenzene and total xylenes were detected at concentrations less than calculated industrial SGSLs. Because some of the soil gas samples collected in September 2022 were proximate to areas that showed impacts in March 2022, but no impacts were detected in September 2022, Farallon worked with the original analytical laboratory to conduct a data quality review of both analytical data sets. No anomalies in the data sets were found to render the data from either event unusable. Farallon recommended that the areas of highest impacts previously encountered under the proposed building slab be resampled to aid in the determination of whether mitigation measures would be recommended for the proposed building.

PCE in soil gas results are shown on Figure 3.



## 3.0 PHYSICAL SETTING

The topography, geology, and hydrogeology of the Site are described in this section.

### 3.1 TOPOGRAPHY

Farallon reviewed the U.S. Geological Survey topographic map for Guasti, California dated 2018 provided by Environmental Data Resources, Inc. The map depicts the Site at an elevation of approximately 980 feet above mean sea level. Site topography slopes gently downward to the south. Regional topography generally is sloped downward to the south.

### 3.2 GEOLOGY AND HYDROGEOLOGY

The Site is situated in the San Bernadino Valley of the Peninsular Ranges Geomorphic Province in Southern California. The Peninsular Ranges Province is bounded by the San Gabriel and San Bernardino mountains to the north and the Colorado Desert to the east, extends into lower California beyond the Mexican border to the south, and is bound by the Pacific Ocean to the west. The San Bernardino Mountains are approximately 7 miles north of the Site.

According to the 2016 SI Report, soil beneath the Site generally consists of very fine-grained silty sand from the surface to a depth of approximately 20 feet bgs and transitions to very fine- to coarse-grained poorly graded sand between depths of 20 and 25 feet bgs. Groundwater was not encountered during Partner's investigation.

Soil encountered during Farallon's previous subsurface investigations was described as silty fine to medium sand to the total explored depth of 4 to 10 feet bgs, with an apparent coarse sand and gravel layer at a depth of 10 feet bgs (and as shallow as 5 feet bgs on the eastern portion of the Site at boring SB-2), and intermittent clayey sand to clay lenses approximately 1 foot thick at a depth of between 6 and 7 feet bgs (borings SVP-16 and SVP-19) and 10 to 11 feet bgs (borings SVP-12 and SVP-16). Groundwater was not encountered during drilling.

Soil observed during the December 2022 sampling round can be generally described as silty fine sand with trace medium sand with some sub-angular gravel to the exploration depth of 4.5 feet bgs. Boring logs are provided in Appendix A.

Site-specific groundwater direction and depth information was not available in the records reviewed. Based on information obtained from the previous reports and California State Water Resources Control Board (2022) GeoTracker database and topographic interpretation, groundwater beneath the Site is anticipated to be encountered at a depth of approximately 250 feet bgs, and is estimated to flow to the south.





## 4.0 SOIL GAS INVESTIGATION

This section presents the scope of work for the soil gas investigation conducted at the Site in December 2022 and summarizes the results from this and prior soil gas sampling events.

### 4.1 SCOPE OF WORK

Before field work was initiated, the Site-specific Health and Safety Plan (HASP) was updated, and underground utilities were cleared. Field work consisted of advancing borings and collecting soil gas samples at the Site to provide a better understanding of soil gas impacts detected during previous subsurface investigations. The following sections detail this scope of work.

#### 4.1.1 Health and Safety Plan Preparation

A Site-specific HASP was required under Section 3202 of Title 8 of the California Code of Regulations (8 CCR 3202) for all field activities due to the potential for exposure to hazardous substances. Prior to commencement of field activities, Farallon updated the HASP compliant with the requirements of the Occupational Safety and Health Act of 1970 and 8 CCR 3203. Personal protection equipment precautions related to COVID-19 were implemented for Farallon personnel during field activities in accordance with Farallon health and safety policy.

#### 4.1.2 Underground Utility Clearance

Prior to commencement of drilling activities, Farallon marked the proposed boring locations at the Site and contacted Dig Alert for public utility notice. Farallon also engaged a private utility location service to pre-screen the proposed boring locations for utilities that may be encountered during advancement using hand tools.

#### 4.1.3 Boring Advancement

Seven borings, designated SVP-20 through SVP-26, were advanced at the Site on December 9, 2022 to investigate the potential presence of VOCs in soil gas beneath the planned new building footprint. The boring locations are shown on Figure 2 and were generally evenly distributed across the planned new building footprint, with select borings placed in previously identified impacted areas. Borings SVP-20, SVP-21, SVP-22, SVP-24, SVP-25, and SVP-26 were advanced proximate to previous locations SVP-2, SVP-1, SVP-4, SVP-5, SVP-8, and SVP-7, respectively, to evaluate previous detections of PCE in soil gas. Borings were advanced in exterior locations paved with asphalt or concrete which required coring to access the subsurface. The borings were advanced using a hand-auger to a depth of 4.5 feet bgs to install soil gas probes at 4 feet bgs as described in Section 4.1.4, Soil Gas Probe Installation and Sampling. The general locations, depths, rationale for the borings, and analytes are shown in Table 1.



The displaced soil was visually inspected and screened by a Farallon geologist using a photoionization detector and was described and logged using the United Soil Classification System (Modified). Physical evidence of soil impacts, including staining and odors, was not observed; photoionization detector readings ranged from 0.1 to 1.0 parts per million. Boring logs with soil descriptions are provided in Appendix A.

#### 4.1.4 Soil Gas Probe Installation and Sampling

Following completion of boring advancement, Farallon converted the borings to temporary soil gas probes. Borings SVP-20 through SVP-26 were constructed with soil gas probes at a depth of 4 feet bgs.

Soil gas probe installation was performed in accordance with the *Advisory: Active Soil Gas Investigations* dated July 2015 prepared by the California Environmental Protection Agency et al. (2015) (Soil Gas Advisory). The probes consisted of an Airstone microporous gas implant or equivalent connected to 0.25-inch-outside-diameter Nylaflo tubing, finished at the surface with temporary plugs. The annulus around the gas implant was backfilled with approximately 1 foot of screen-washed No. 3 sand, followed by 1 foot of dry #8 granular bentonite, and completed with hydrated #8 granular bentonite to create a seal from the top of the dry granular bentonite to near surface. Soil gas probe construction is illustrated in the boring logs provided in Appendix A; their locations are shown on Figure 2.

The temporary soil gas probes were allowed to equilibrate for 7 days prior to sample collection on December 16, 2022. Soil gas sampling, including observance of equilibration times, performance of shut-in tests, and purging activities, was conducted in accordance with the Soil Gas Advisory. Seven soil gas samples were collected into 1-liter Summa canisters at a rate of 200 milliliters per minute or less. The tracer gas 1,1-difluoroethane (1,1-DFA) was introduced to ambient air surrounding the sampling train by soaking a cotton swab with liquid 1,1-DFA and placing it at the location where the soil gas probe tubing exited the ground.

Upon completion of sample collection at each location, a 1-liter Tedlar bag was filled with soil gas by a syringe from the probe tubing at each soil gas location. Each Tedlar bag was then connected to a calibrated Landtec Gem5000 landfill gas monitor for on-site methane evaluation.

The Summa canisters were transported under chain-of-custody protocols to a California-certified laboratory, and were analyzed for VOCs by EPA Method TO-15. The soil gas probes were then abandoned by extracting as much tubing as practical, filling the boring with bentonite grout and restoring the surface to match surrounding conditions.

## 4.2 SUMMARY OF ANALYTICAL RESULTS FOR SOIL GAS

The soil gas analytical results were compared to DTSC Screening Levels for indoor air, EPA Regional Screening Levels for indoor air, and the San Francisco Water Quality Control Board Environmental Screening Levels for TPH-g, which were adjusted using suggested attenuation factors provided in the Vapor Intrusion Guidance prepared by DTSC and the California



Environmental Protection Agency (2011). The attenuation factor used for this comparison was 0.03 published in HHRA Note 3. The methane screening results were obtained in percent, and compared to the DTSC screening level for methane of 0.5 percent by volume<sup>5</sup> (10 percent of the lower explosive limit for methane).

A summary of soil gas analytical results from December 2022 is provided in Table 5 and PCE in soil gas results are shown on Figure 3. In order to provide a comprehensive understanding of analytical results for the Site, PCE in soil gas from previous investigations is also shown on Figure 3, and analytical results from previous investigations are included in the attached data tables.

Soil gas analytical and methane screening results from the December 2022 sampling event are summarized below. A written summary of previous results can be found in each related previous report.

- PCE was not detected at a concentration exceeding the laboratory reporting limit of 0.1  $\mu\text{g}/\text{m}^3$  in soil gas samples collected from locations SVP-20 or SVP-23 on the southwestern and central portions of the planned building, respectively.
- PCE was detected at concentrations of 3.5  $\mu\text{g}/\text{m}^3$  in SVP-21, 2.6  $\mu\text{g}/\text{m}^3$  in SVP-22, 5.7  $\mu\text{g}/\text{m}^3$  in SVP-24, 13.0  $\mu\text{g}/\text{m}^3$  in SVP-25, and 60.2  $\mu\text{g}/\text{m}^3$  in SVP-26, which are less than the calculated industrial SGSL of 67  $\mu\text{g}/\text{m}^3$  using the 0.03 attenuation factor. These samples were collected from beneath the north-central and east-central portions of the planned building. Borings SVP-24, SVP-25, and SVP-26 were located in the immediate vicinity of former borings that contained elevated concentrations of PCE in the soil gas samples collected at a depth of 4 feet bgs in March 2022: 70  $\mu\text{g}/\text{m}^3$  in SVP-5, 232  $\mu\text{g}/\text{m}^3$  in SVP-8, and 247  $\mu\text{g}/\text{m}^3$  in SVP-7, respectively.
- Trace concentrations of cyclohexane, trichlorofluoromethane (Freon 11), dichlorodifluoro-methane (Freon 12), ethylbenzene, toluene, total xylenes, 1,2,4-trimethyl-benzene, and carbon disulfide were detected in soil gas samples collected from various locations at concentrations exceeding their laboratory reporting limit of 1.0  $\mu\text{g}/\text{m}^3$ , but well below their respective calculated industrial SGSLs using the 0.03 attenuation factor;
- Methane was not detected at concentrations exceeding the detection level of 0.1 percent in soil gas samples collected from locations SVP-20 through SVP-26 using a Landtec Gem5000 landfill gas monitor for methane evaluation.
- The tracer gas 1,1-DFA was not detected at a concentration exceeding the laboratory reporting limit in the soil gas samples collected from locations SVP-20 through SVP-26.

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<sup>5</sup> *Advisory on Methane Assessment and Common Remedies at School Sites* dated June 16, 2005, prepared by Department of Toxic Substances Control (2005).



### 4.3 INVESTIGATION-DERIVED WASTE

Investigation-derived waste generated during this sampling event consisted of a small amount of excess soil removed from each boring. The excess soil did not display evidence of chemical impact based on visual, olfactory inspection, or photoionization detector screening. Previous soil sample analytical results indicate that Site soil is suitable for on-Site reuse. Excess soil was reused at the Site.



## 5.0 CONCLUSIONS AND RECOMMENDATIONS

Farallon conducted a soil gas investigation in December 2022 to further investigate impacts of VOCs previously identified in soil gas beneath the planned new building footprint at the Site. Previous soil gas data indicated that PCE was present at concentrations exceeding calculated industrial screening levels using the 0.03 attenuation factor in soil gas samples collected beneath and proximate to the planned new building footprint, specifically west of and beneath Building B; proximate to the former location of the 12,000-gallon diesel fuel UST; proximate to the former location of two 12,000 gallon USTs; and proximate to the vehicle washdown area with sump. PCE also was detected at concentrations less than the calculated industrial screening levels in soil gas in other soil gas samples collected at the Site.

For the December 2022 soil gas investigation, seven borings were advanced in the planned new building footprint. Soil gas probes were generally evenly distributed across the planned new building footprint, with selected probes placed proximate to areas previously identified as impacted by PCE. The borings were converted to temporary soil gas probes at a depth of 4 feet bgs and soil gas samples were collected and analyzed for VOCs and methane.

PCE was detected in five of the seven soil gas samples at concentrations exceeding the laboratory reporting limit of 0.1 ug/m<sup>3</sup>. PCE detections in four of the soil gas samples ranged from 3.5 ug/m<sup>3</sup> to 13.0 ug/m<sup>3</sup>; however, one detection of PCE (60.2 ug/m<sup>3</sup> in SVP-26) approached the calculated industrial SGSL of 67 ug/m<sup>3</sup> using a 0.3 attenuation factor. The detections of PCE in soil gas samples, which were collocated with soil gas samples collected during previous investigations, were less than detections of PCE in soil gas samples collected in 2016 by Partner and March 2022 by Farallon.

Other VOCs were not found during this investigation to be present in soil gas samples at concentrations approaching applicable screening levels. Methane was not detected in the soil gas samples.

Soil gas sampling at the Site has provided evidence of fluctuating concentrations of PCE. PCE concentrations detected in soil gas samples collected by Partner in July 2016 and by Farallon in March 2022 exceeded the calculated SGSL using a 0.03 attenuation factor at select locations. PCE was not detected above the laboratory reporting limit in soil gas samples collected by Farallon in September 2022. PCE was not detected at concentrations above the laboratory reporting limit or was detected at concentrations less than the calculated SGSL using a 0.03 attenuation factor in soil gas samples collected by Farallon in December 2022. The variability of reported concentrations of PCE in soil gas between the four soil gas sampling events suggests that PCE concentrations in soil gas may be influenced by variables such as seasonal changes. Because PCE detections in soil gas from the September and December 2022 investigations either were not detected above laboratory reporting limits or were less than the calculated SGSL using a 0.03 attenuation factor, and sampling locations were chosen in areas of known impacts, sampling data from the last two sampling rounds has not established the potential for an unacceptable vapor intrusion risk in the planned future building footprint. Based on the industrial nature of the use of the Site, Farallon recommends



implementation of a Media Management Plan to address any soil impacts associated with historical activities at the Site that may be encountered during Site redevelopment.



## 6.0 REFERENCES

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## 7.0 LIMITATIONS

### 7.1 GENERAL LIMITATIONS

The conclusions contained in this report/assessment are based on professional opinions with regard to the subject matter. These opinions have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location. The conclusions contained herein are subject to the following inherent limitations:

- **Accuracy of Information.** Farallon obtained, reviewed, and evaluated certain information used in this report/assessment from sources that were believed to be reliable. Farallon's conclusions, opinions, and recommendations are based in part on such information. Farallon's services did not include verification of its accuracy or authenticity. Should the information upon which Farallon relied prove to be inaccurate or unreliable, Farallon reserves the right to amend or revise its conclusions, opinions, and/or recommendations.
- **Reconnaissance and/or Characterization.** Farallon performed a reconnaissance and/or characterization of the Site that is the subject of this report/assessment to document current conditions. Farallon focused on areas deemed more likely to exhibit hazardous materials conditions. Contamination may exist in other areas of the Site that were not investigated or were inaccessible. Site activities beyond Farallon's control could change at any time after the completion of this report/assessment.

For the foregoing reasons, Farallon cannot and does not warrant or guarantee that the Site is free of hazardous or potentially hazardous substances or conditions, or that latent or undiscovered conditions will not become evident in the future. Farallon's observations, findings, and opinions can be considered valid only as of the date of the report.

This report/assessment has been prepared in accordance with the contract for services between Farallon and Prologis, L.P. and currently accepted industry standards. No other warranties, representations, or certifications are made.

### 7.2 LIMITATION ON RELIANCE BY THIRD PARTIES

**Reliance by third parties is prohibited.** This report/assessment has been prepared for the exclusive use of Prologis, L.P. to address the unique needs of Prologis, L.P. at the Site at a specific point in time.

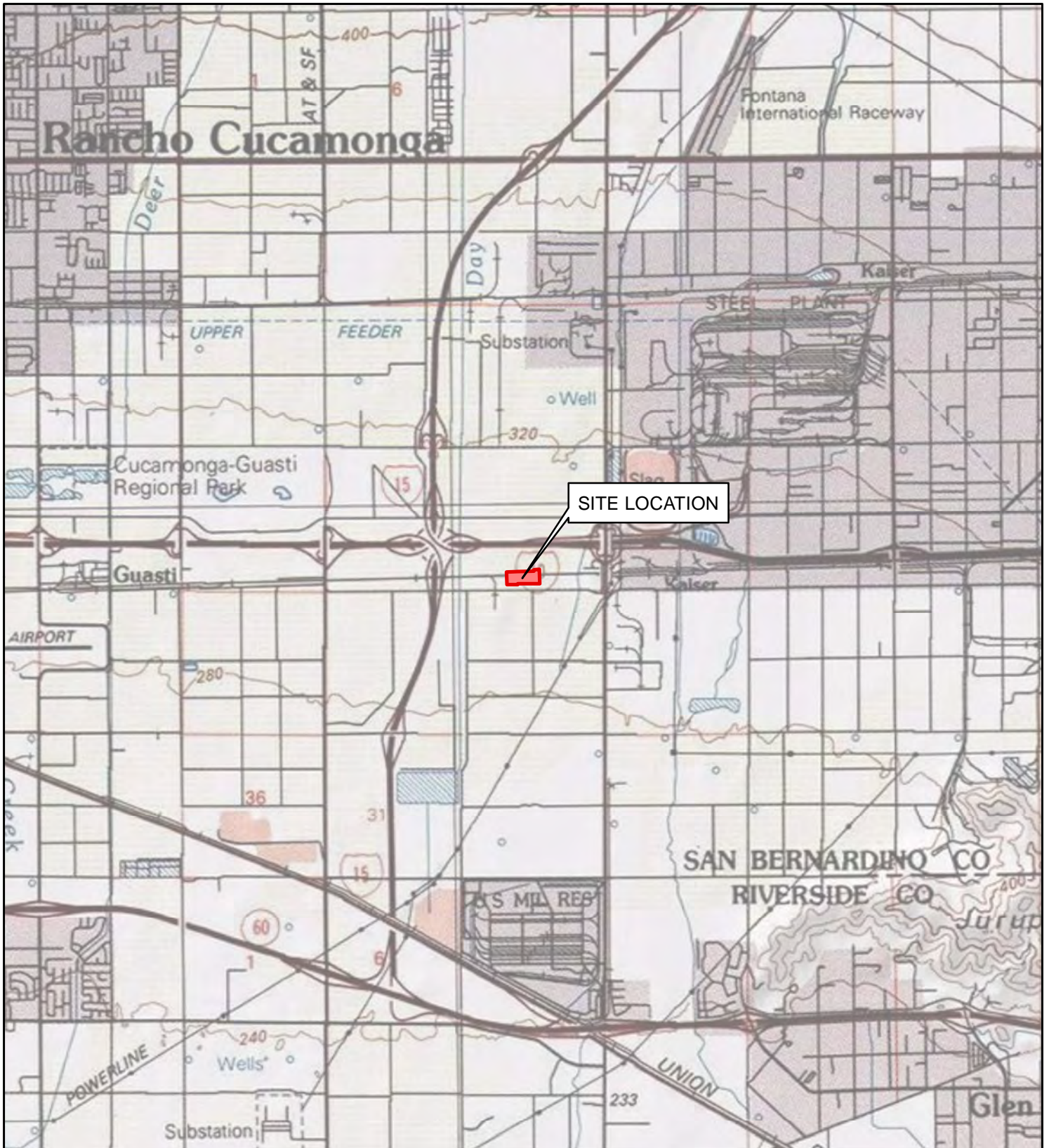
This is not a general grant of reliance. No one other than Prologis, L.P. may rely on this report unless Farallon agrees in advance to such reliance in writing. Any unauthorized use, interpretation, or reliance on this report/assessment is at the sole risk of that party, and Farallon will have no liability for such unauthorized use, interpretation, or reliance.



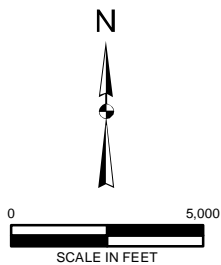
## FIGURES

SOIL GAS INVESTIGATION REPORT  
5355 East Airport Drive  
Ontario, California

Farallon PN: 1071-080 (Task 2)



REFERENCE: 7.5 MINUTE USGS QUADRANGLE GUASTI, CALIFORNIA, DATED 2013



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Oregon  
Portland | Baker City

California  
Oakland | Irvine

## FIGURE 1

SITE VICINITY MAP  
5355 EAST AIRPORT DRIVE  
ONTARIO, CALIFORNIA

FARALLON PN: 1071-080-004

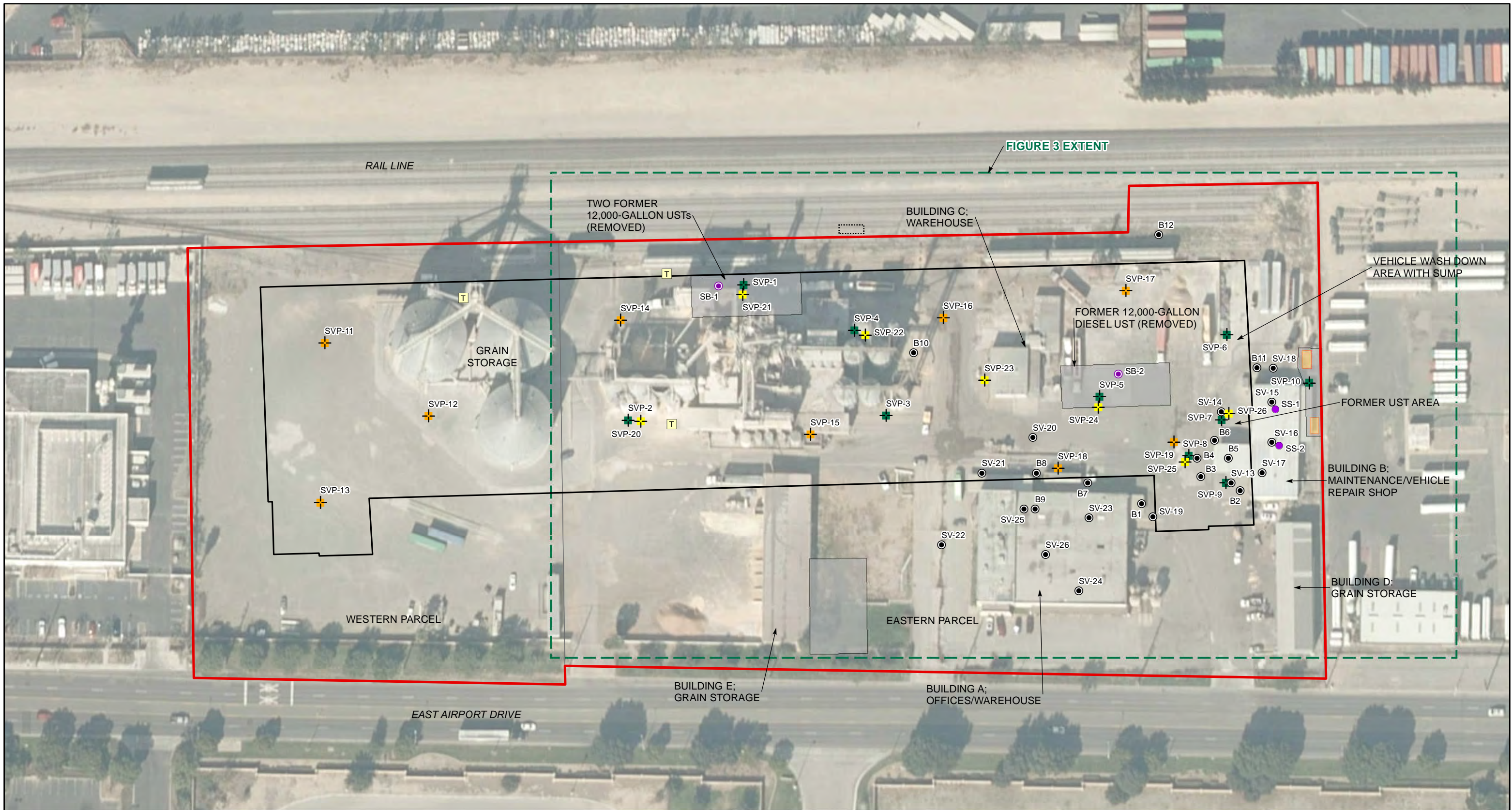
Drawn By: jjones

Checked By: PS

Date: 12/29/2022

Disc Reference:

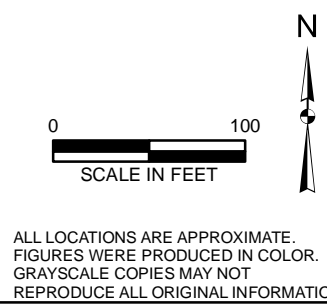
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**LEGEND**

- + SOIL GAS PROBE (FARALLON, DECEMBER 2022)
- + SOIL GAS PROBE (FARALLON, SEPTEMBER 2022)
- + SOIL GAS PROBE (FARALLON, MARCH 2022)
- SUBSLAB SOIL GAS PROBE (FARALLON, MARCH 2022)
- BORING (FARALLON, MARCH 2022)
- SOIL GAS PROBE (PARTNER, 2016)
- T TRANSFORMER
- FORMER SITE FEATURE
- OBSERVED SEPTIC TANK LOCATION
- GROUND-PENETRATING RADAR SCAN AREA
- PROPOSED BUILDING FOOTPRINT
- SITE BOUNDARY

SAN BERNARDINO COUNTY PARCEL BOUNDARY  
 AST = ABOVEGROUND STORAGE TANK  
 GPR = GROUND-PENETRATING RADAR  
 UST = UNDERGROUND STORAGE TANK  
 GPR SURVEY AREA - 2022 (NO UST FOUND)



Washington  
 Issaquah | Bellingham | Seattle  
 Oregon  
 Portland | Baker City  
 California  
 Oakland | Irvine

Drawn By: Imurock  
 Checked By: KL  
 Date: 2/1/2023

**FIGURE 2**

**SITE PLAN AND SAMPLING LOCATIONS**  
 5355 EAST AIRPORT DRIVE  
 ONTARIO, CALIFORNIA

FARALLON PN: 1071-080-004

Disc Reference:  
 Q:\Projects\1071 Prologis\080 2021 SoCal Due Diligence \11002 Airport Dr\Mapfiles\SSI\_2022-12\Figure-02\_SitePlan.mxd



## **TABLES**

**SOIL GAS INVESTIGATION REPORT**  
5355 East Airport Drive  
Ontario, California

**Farallon PN: 1071-080 (Task 2)**

**Table 1**  
**Sampling Rationale**  
**5355 East Airport Road**  
**Ontario, California**  
**Farallon PN: 1071-080-004**

Sample ID	Location	Rationale	Boring Depth (feet bgs)	Sample Depth (feet bgs)	Matrix to be Sampled	Analysis
SVP-20	Planned New Building Footprint	Assess the potential for soil gas at former soil vapor point SVP-2	4.5	4	Soil Gas	VOCs via TO-15 Methane
SVP-21	Planned New Building Footprint	Assess the potential for soil gas at former soil vapor point SVP-1	4.5	4	Soil Gas	VOCs via TO-15 Methane
SVP-22	Planned New Building Footprint	Assess the potential for soil gas at former soil vapor point SVP-4	4.5	4	Soil Gas	VOCs via TO-15 Methane
SVP-23	Planned New Building Footprint	Assess the potential for soil gas under the future building	4.5	4	Soil Gas	VOCs via TO-15 Methane
SVP-24	Planned New Building Footprint	Assess the potential for soil gas at former soil vapor point SVP-5	4.5	4	Soil Gas	VOCs via TO-15 Methane
SVP-25	Planned New Building Footprint	Assess the potential for soil gas at former soil vapor point SVP-8	4.5	4	Soil Gas	VOCs via TO-15 Methane
SVP-26	Planned New Building Footprint	Assess the potential for soil gas at former soil vapor point SVP-7	4.5	4	Soil Gas	VOCs via TO-15 Methane

**NOTES:**

bgs = below ground surface

VOC = volatile organic compound

TO-15 = US Environmental Protection Agency Method TO-15

**Table 2**  
**Cumulative Summary of Volatile Organic Compounds in Soil**  
**5355 East Airport Road**  
**Ontario, California**  
**Farallon PN: 1071-080-002**

Sample Location	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	Analytical Results (milligrams per kilogram) <sup>2</sup>					
					PCE	Benzene	Toluene	Ethylbenzene	Total Xylenes	Other VOCs
B1	Partner	B1-1	1.0	7/21/2016	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.015	ND
B2	Partner	B2-1	1.0	7/21/2016	< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.0131	ND
B3	Partner	B3-15	15.0	7/21/2016	< 0.0043	< 0.0043	< 0.0043	< 0.0043	< 0.0129	ND
B4	Partner	B4-10	10.0	7/21/2016	< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.0132	ND
B5	Partner	B5-15	15.0	7/21/2016	< 0.0041	< 0.0041	< 0.0041	< 0.0041	< 0.0123	ND
B6	Partner	B6-10	10.0	7/21/2016	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.015	ND
B7	Partner	B7-10	10.0	7/21/2016	< 0.0043	< 0.0043	< 0.0043	< 0.0043	< 0.013	ND
B8	Partner	B8-10	10.0	7/21/2016	< 0.0044	< 0.0044	< 0.0044	< 0.0044	< 0.0133	ND
B9	Partner	B9-1	1.0	7/21/2016	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.015	ND
B10	Partner	B10-1	1.0	7/21/2016	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.015	ND
B11	Partner	B11-1	1.0	7/21/2016	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.015	ND
B12	Partner	B12-1	1.0	7/21/2016	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.015	ND
SB-1	Farallon	SB-1-10'	10.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SB-2	Farallon	SB-1-10'	10.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-1	Farallon	SVP-1-10'	10.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-2	Farallon	SVP-2-4'	4.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-3	Farallon	SVP-3-4'	4.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-4	Farallon	SVP-4-4'	4.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-5	Farallon	SVP-5-10'	10.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-6	Farallon	SVP-6-4'	4.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
	Farallon	SVP-6-8'	8.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-7	Farallon	SVP-7-4'	4.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-8	Farallon	SVP-8-4'	4.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-9	Farallon	SVP-9-4'	4.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
SVP-10	Farallon	SVP-10-8'	8.0	3/4/2022	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0030	ND
<b>Commercial/Industrial Soil RSL<sup>3</sup></b>					<b>2.7</b>	<b>1.4</b>	<b>5,300</b>	<b>25</b>	<b>2,500</b>	<b>Various</b>

**NOTES:**

< denotes analyte not detected at or exceeding the reporting limit listed.

<sup>1</sup>Depth in feet below ground surface.

<sup>2</sup>Analyzed by U.S. Environmental Protection Agency (EPA) Method 8260B. Only select VOCs shown in table; see lab reports for full list of analytes.

<sup>3</sup>June 2020 (Revised May 2022) Department of Toxic Substances Control (DTSC) Regional Screening Levels (RSLs). If DTSC RSLs do not exist, November 2022 EPA RSLs were used and noted in blue text.

Farallon = Farallon Consulting, LLC

ND = not detected at or above the laboratory reporting limit

Partner = Partner Engineering and Science, Inc.

PCE = Tetrachloroethene

RSL = Regional Screening Level

VOCs = volatile organic compounds

**Table 3**  
**Cumulative Summary of Total Petroleum Hydrocarbons in Soil**  
**5355 East Airport Road**  
**Ontario, California**  
**Farallon PN: 1071-080-002**

Sample Location	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	Analytical Results (milligrams per kilogram) <sup>2</sup>		
					TPH-g (C4 - C12)	TPH-d (C13 - C22)	TPH-o (C23 - C40)
B1	Partner	B1-1	1.0	7/21/2016	< 10	< 10	< 10
B2	Partner	B2-1	1.0	7/21/2016	< 10	< 10	< 10
B3	Partner	B3-15	15.0	7/21/2016	< 10	< 10	< 10
B4	Partner	B4-10	10.0	7/21/2016	< 10	< 10	< 10
B5	Partner	B5-15	15.0	7/21/2016	< 10	< 10	< 10
B6	Partner	B6-10	10.0	7/21/2016	< 10	< 10	< 10
B7	Partner	B7-10	10.0	7/21/2016	< 10	< 10	< 10
B8	Partner	B8-10	10.0	7/21/2016	< 10	< 10	< 10
B9	Partner	B9-1	1.0	7/21/2016	< 10	< 10	< 10
B10	Partner	B10-1	1.0	7/21/2016	< 10	< 10	< 10
B11	Partner	B11-1	1.0	7/21/2016	< 10	< 10	< 10
B12	Partner	B12-1	1.0	7/21/2016	< 10	< 10	< 10
SB-1	Farallon	SB-1-10'	10.0	3/4/2022	< 0.20	< 10.0	< 10.0
SB-2	Farallon	SB-1-10'	10.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-1	Farallon	SVP-1-10'	10.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-2	Farallon	SVP-2-4'	4.0	3/4/2022	< 0.20	---	---
SVP-3	Farallon	SVP-3-4'	4.0	3/4/2022	< 0.20	---	---
SVP-4	Farallon	SVP-4-4'	4.0	3/4/2022	< 0.20	---	---
SVP-5	Farallon	SVP-5-10'	10.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-6	Farallon	SVP-6-4'	4.0	3/4/2022	< 0.20	< 10.0	< 10.0
	Farallon	SVP-6-8'	8.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-7	Farallon	SVP-7-4'	4.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-8	Farallon	SVP-8-4'	4.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-9	Farallon	SVP-9-4'	4.0	3/4/2022	< 0.20	< 10.0	< 10.0
SVP-10	Farallon	SVP-10-8'	8.0	3/4/2022	< 0.20	< 10.0	< 10.0
<b>MSSL (&lt; 20 feet Above Groundwater)<sup>3</sup></b>					<b>100</b>	<b>100</b>	<b>1,000</b>
<b>MSSL (20-150 feet Above Groundwater)<sup>3</sup></b>					<b>500</b>	<b>1,000</b>	<b>10,000</b>
<b>MSSL (&gt; 150 feet Above Groundwater)<sup>3</sup></b>					<b>1,000</b>	<b>10,000</b>	<b>50,000</b>

**NOTES:**

< denotes analyte not detected at or exceeding the reporting limit listed.

--- denotes sample not analyzed.

<sup>1</sup>Depth in feet below ground surface.

<sup>2</sup>Analyzed by U.S. Environmental Protection Agency (EPA) Method 8015M (2022 samples) or 8015C (2016 samples).

<sup>3</sup>Los Angeles Regional Water Quality Control Board April 27, 2004 MSSLS for groundwater at depths of less than 20 feet, 20 to 150 feet, and greater than 150 feet below ground surface.

C = carbon range (number of carbons)

Farallon = Farallon Consulting, LLC

MSSL = maximum soil screening level

Partner = Partner Engineering and Science, Inc.

TPH-d = total petroleum hydrocarbons as diesel

TPH-g = total petroleum hydrocarbons as gasoline

TPH-o = total petroleum hydrocarbons as oil



**Table 4**  
**Cumulative Summary of Metals in Soil**  
**5355 East Airport Road**  
**Ontario, California**  
**Farallon PN: 1071-080-002**

Sample Location	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	Analytical Results (milligrams per kilogram) <sup>2</sup>									
					Barium	Cadmium	Chromium	Cobalt	Copper	Lead	Nickel	Vanadium	Zinc	Other Metals
SVP-6	Farallon	SVP-6-4'	4.0	3/4/2022	61.2	0.9	8.2	5.2	5.9	1.1	5.2	24.6	26.5	ND
	Farallon	SVP-6-8'	8.0	3/4/2022	59.6	0.9	8.5	5.2	6.0	1.2	5.2	23.1	27.0	ND
<b>Residential Soil RSL<sup>3</sup></b>					<b>15,000</b>	<b>7.1</b>	<b>NE</b>	<b>23</b>	<b>3,100</b>	<b>80</b>	<b>820</b>	<b>390</b>	<b>23,000</b>	<b>Various</b>
<b>Industrial Soil RSL<sup>3</sup></b>					<b>220,000</b>	<b>79</b>	<b>NE</b>	<b>350</b>	<b>47,000</b>	<b>500</b>	<b>11,000</b>	<b>5,800</b>	<b>350,000</b>	<b>Various</b>

NOTES:

< denotes analyte not detected at or exceeding the reporting limit listed.

<sup>1</sup>Depth in feet below ground surface.

<sup>2</sup>California Administrative Manual (CAM) Priority Pollutant List (PPL) 17 metals analyzed by U.S. Environmental Protection Agency (EPA) Method 6010B by 3050B; mercury analyzed by EPA Method 7471A. Only detected analytes shown; see laboratory report for full list of analytes.

<sup>3</sup>June 2020 (Revised May 2022) Department of Toxic Substances Control (DTSC) Regional Screening Levels (RSLs). If DTSC RSLs do not exist, November 2022 EPA RSLs were used and noted in blue text.

Farallon = Farallon Consulting, LLC

ND = not detected at or above the laboratory reporting limit

RSL = Regional Screening Level

**Table 5**  
**Cumulative Summary of Volatile Organic Compounds in Soil Gas**  
**5355 East Airport Road**  
**Ontario, California**  
**Farallon PN: 1071-080-004**

Sample Location	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	Analytical Results (micrograms per cubic meter) <sup>2</sup>													
					PCE	TCE	Cyclohexane	Trichloro-fluoro-methane (Freon 11)	Dichloro-difluoro-methane (Freon 12)	Ethylbenzene	Toluene	Total Xylenes	1,2,4-Trimethyl-benzene	Carbon Disulfide	TPH-g	Methane	Other VOCs	Tracer
<b>Subslab Soil Gas Samples</b>																		
SS-1	Farallon	SS-1	0.5	3/11/2022	220	< 20	---	< 40	< 40	< 20	< 20	< 60	< 20	---	< 5,000	---	< 5,000	ND
SS-2	Farallon	SS-2	0.5	3/11/2022	194	< 20	---	< 40	< 40	< 20	< 20	< 60	< 20	---	< 5,000	---	< 5,000	ND
<b>Soil Gas Samples</b>																		
B3	Partner	B3-SG	5.0	7/21/2016	< 350 C	< 270 C	< 170 C	< 290 C	< 250 C	< 220 C	< 190 C	460 C	< 250 C	< 160 C	---	---	ND C	ND
B4	Partner	B4-SG	5.0	7/21/2016	< 350 C	< 270 C	< 170 C	< 290 C	< 250 C	280 C	< 190 C	1,500 C	< 250 C	< 160 C	---	---	ND C	ND
B5	Partner	B5-SG	5.0	7/21/2016	100	< 5.5	< 3.5	< 5.7	< 5.0	< 4.4	< 3.8	12	< 5.0	< 3.2	---	---	ND	ND
B6	Partner	B6-SG	5.0	7/21/2016	68	26	< 3.5	< 5.7	< 5.0	< 4.4	4.0	23.6	< 5.0	< 3.2	---	---	ND	ND
B7	Partner	B7-SG	5.0	7/21/2016	< 6.9	< 5.5	< 3.5	< 5.7	< 5.0	11	4.9	92	< 5.0	< 3.2	---	---	ND	ND
B8	Partner	B8-SG	5.0	7/21/2016	44	13	< 3.5	< 5.7	< 5.0	21	13	178	< 5.0	< 3.2	---	---	ND	ND
SV-13	Partner	SV-13-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-14	Partner	SV-14-4'	4.0	7/29/2016	230	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-15	Partner	SV-15-5'	5.0	7/29/2016	120	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-16	Partner	SV-16-4'	4.0	7/29/2016	180	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-17	Partner	SV-17-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-18	Partner	SV-18-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-19	Partner	SV-19-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-20	Partner	SV-20-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-21	Partner	SV-21-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-22	Partner	SV-22-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-23	Partner	SV-23-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-24	Partner	SV-24-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-25	Partner	SV-25-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SV-26	Partner	SV-26-5'	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
	Partner	SV-26-5' Dup	5.0	7/29/2016	< 100	< 100	< 1,000	< 1,000	< 1,000	< 400	< 1,000	< 2,000	---	---	---	---	ND	ND
SVP-1	Farallon	SVP-1-4'	4.0	3/11/2022	31	< 20	---	< 40	< 40	< 20	21	< 60	< 20	---	< 5,000	---	ND	ND
	Farallon	SVP-1-10'	10.0	3/11/2022	157	< 20	---	< 40	< 40	< 20	21	< 60	< 20	---	< 5,000	---	ND	ND
SVP-2	Farallon	SVP-2-4'	4.0	3/11/2022	27	< 20	---	< 40	< 40	< 20	34	< 60	< 20	---	< 5,000	---	ND	ND
SVP-3	Farallon	SVP-3-4'	4.0	3/11/2022	< 20	< 20	---	< 40	< 40	< 20	78	< 60	< 20	---	< 5,000	---	ND	ND
	Farallon	SVP-3-4'REP	4.0	3/11/2022	< 20	< 20	---	< 40	< 40	< 20	45	< 60	< 20	---	< 5,000	---	ND	ND
SVP-4	Farallon	SVP-4-4'	4.0	3/11/2022	62	< 20	---	< 40	< 40	< 20	80	< 60	< 20	---	< 5,000	---	ND	ND
	Farallon	SVP-4-4'REP	4.0	3/11/2022	57	< 20	---	< 40	< 40	< 20	46	< 60	< 20	---	< 5,000	---	ND	ND
<b>Calculated Industrial SGSL with 0.03 Attenuation Factor<sup>3</sup></b>					<b>67</b>	<b>100</b>	<b>870,000</b>	<b>180,000</b>	<b>15,000</b>	<b>160</b>	<b>43,000</b>	<b>15,000</b>	<b>8,700</b>	<b>100,000</b>	<b>83,000</b>	<b>5%<sup>4</sup></b>	<b>Varies</b>	<b>Varies</b>

**Table 5**  
**Cumulative Summary of Volatile Organic Compounds in Soil Gas**  
**5355 East Airport Road**  
**Ontario, California**  
**Farallon PN: 1071-080-004**

Sample Location	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	Analytical Results (micrograms per cubic meter) <sup>2</sup>													
					PCE	TCE	Cyclohexane	Trichloro-fluoro-methane (Freon 11)	Dichloro-difluoro-methane (Freon 12)	Ethylbenzene	Toluene	Total Xylenes	1,2,4-Trimethyl-benzene	Carbon Disulfide	TPH-g	Methane	Other VOCs	Tracer
SVP-5	Farallon	SVP-5-4'	4.0	3/11/2022	70	< 20	---	< 40	< 40	< 20	83	< 60	< 20	---	< 5,000	---	ND	ND
	Farallon	SVP-5-10'	10.0	3/11/2022	234	< 20	---	< 40	< 40	< 20	< 20	< 60	< 20	---	< 5,000	---	ND	ND
SVP-6	Farallon	SVP-6-4'	4.0	3/11/2022	97	< 20	---	< 40	< 40	< 20	106	< 60	< 20	---	< 5,000	---	ND	ND
	Farallon	SVP-6-8'	8.0	3/11/2022	34	< 20	---	< 40	< 40	< 20	65	< 60	< 20	---	< 5,000	---	ND	ND
SVP-7	Farallon	SVP-7-4'	4.0	3/11/2022	247	< 20	---	< 40	< 40	< 20	91	< 60	< 20	---	< 5,000	---	ND	ND
SVP-8	Farallon	SVP-8-4'	4.0	3/11/2022	232	< 20	---	< 40	< 40	< 20	89	< 60	< 20	---	< 5,000	---	ND	ND
SVP-9	Farallon	SVP-9-4'	4.0	3/11/2022	24	< 20	---	< 40	< 40	< 20	87	< 60	< 20	---	< 5,000	---	ND	ND
SVP-10	Farallon	SVP-10-4'	4.0	3/11/2022	31	< 20	---	< 40	< 40	< 20	60	< 60	< 20	---	< 5,000	---	ND	ND
	Farallon	SVP-10-8'	8.0	3/11/2022	63	< 20	---	< 40	60	< 20	47	< 60	< 20	---	< 5,000	---	ND	ND
SVP-11	Farallon	SVP-11-4	4.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 50	< 25	< 250	---	---	ND	ND
	Farallon	SVP-11-10	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 50	< 25	< 250	---	---	ND	ND
SVP-12	Farallon	SVP-12-4	4.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 50	< 25	< 250	---	---	ND	ND
	Farallon	SVP-12-10	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
SVP-13	Farallon	SVP-13-4	4.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
	Farallon	SVP-13-10	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
SVP-14	Farallon	SVP-14-4	4.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
	Farallon	SVP-14-10	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
SVP-15	Farallon	SVP-15-4	4.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
	Farallon	SVP-15-10	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
SVP-16	Farallon	SVP-16-4	4.0	9/20/2022	< 25	< 25	---	< 25	< 25	50	< 25	90	< 25	< 250	---	---	ND	ND
	Farallon	SVP-16-10	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	30	< 25	90	< 25	< 250	---	---	ND	ND
SVP-17	Farallon	SVP-17-4	4.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
	Farallon	SVP-17-10	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
SVP-18	Farallon	SVP-18-4	4.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
	Farallon	SVP-18-10	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
	Farallon	SVP-18-10-DUP	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
SVP-19	Farallon	SVP-19-4	4.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
	Farallon	SVP-19-10	10.0	9/20/2022	< 25	< 25	---	< 25	< 25	< 25	< 25	< 75	< 25	< 250	---	---	ND	ND
<b>Calculated Industrial SGSL with 0.03 Attenuation Factor<sup>3</sup></b>					<b>67</b>	<b>100</b>	<b>870,000</b>	<b>180,000</b>	<b>15,000</b>	<b>160</b>	<b>43,000</b>	<b>15,000</b>	<b>8,700</b>	<b>100,000</b>	<b>83,000</b>	<b>5%<sup>4</sup></b>	<b>Varies</b>	<b>Varies</b>

**Table 5  
Cumulative Summary of Volatile Organic Compounds in Soil Gas  
5355 East Airport Road  
Ontario, California  
Farallon PN: 1071-080-004**

Sample Location	Sampled By	Sample Identification	Sample Depth (feet) <sup>1</sup>	Sample Date	Analytical Results (micrograms per cubic meter) <sup>2</sup>													
					PCE	TCE	Cyclohexane	Trichloro-fluoro-methane (Freon 11)	Dichloro-difluoro-methane (Freon 12)	Ethylbenzene	Toluene	Total Xylenes	1,2,4-Trimethyl-benzene	Carbon Disulfide	TPH-g	Methane	Other VOCs	Tracer
SVP-20	Farallon	SVP-20	4.0	12/16/2022	< 1.0	< 1.0	<b>1.8</b>	<b>3.2</b>	<b>2.3</b>	<b>1.0</b>	<b>2.9</b>	<b>4.7</b>	< 1.0	< 1.0	---	0%	ND	ND
SVP-21	Farallon	SVP-21	4.0	12/16/2022	<b>3.5</b>	< 1.0	< 1.0	<b>2.6</b>	<b>2.6</b>	< 1.0	<b>1.6</b>	<b>4.4</b>	< 1.0	< 1.0	---	0%	ND	ND
SVP-22	Farallon	SVP-22	4.0	12/16/2022	<b>2.6</b>	< 1.0	<b>19.0</b>	<b>1.3</b>	<b>2.5</b>	<b>2.6</b>	<b>4.9</b>	<b>11.5</b>	< 1.0	< 1.0	---	0%	ND	ND
SVP-23	Farallon	SVP-23	4.0	12/16/2022	< 1.0	< 1.0	<b>1.3</b>	<b>1.3</b>	<b>2.1</b>	< 1.0	<b>1.6</b>	<b>4.1</b>	<b>4.6</b>	< 1.0	---	0%	ND	ND
SVP-24	Farallon	SVP-24	4.0	12/16/2022	<b>5.7</b>	< 1.0	< 1.0	<b>1.1</b>	<b>2.8</b>	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	---	0%	ND	ND
SVP-25	Farallon	SVP-25	4.0	12/16/2022	<b>13.0</b>	< 1.0	<b>1.0</b>	<b>1.1</b>	<b>4.7</b>	< 1.0	< 1.0	<b>1.4</b>	< 1.0	< 1.0	---	0%	ND	ND
SVP-26	Farallon	SVP-26	4.0	12/16/2022	<b>60.2</b>	< 1.0	<b>2.8</b>	<b>1.1</b>	<b>8.9</b>	<b>1.8</b>	<b>4.4</b>	<b>9.8</b>	< 1.0	<b>1.5</b>	---	0%	ND	ND
<b>Calculated Industrial SGSL with 0.03 Attenuation Factor<sup>3</sup></b>					<b>67</b>	<b>100</b>	<b>870,000</b>	<b>180,000</b>	<b>15,000</b>	<b>160</b>	<b>43,000</b>	<b>15,000</b>	<b>8,700</b>	<b>100,000</b>	<b>83,000</b>	<b>5%<sup>4</sup></b>	<b>Varies</b>	<b>Varies</b>

**NOTES:**

Results in **bold** denote concentrations detected at or above the laboratory reporting limit. Results in **bold** and highlighted **yellow** denote concentrations exceeding applicable SGSLs for the current property use (industrial/commercial).

< denotes analyte not detected at or exceeding the reporting limit listed.

--- denotes sample not analyzed or not applicable.

<sup>1</sup> Depth in feet below ground surface.

<sup>2</sup> Only detected VOCs shown in table; see lab reports for full list of analytes. Analyzed by EPA Methods 8260B/8260B-Modified (7/29/2016 (Modified), 3/11/2022, and 9/20/2022) or TO-15 (7/21/2016 and 12/16/2022), unless otherwise noted.

<sup>3</sup> Except as noted (see Footnote 4), Calculated soil gas screening levels (SGSLs) were derived by dividing the May 2022 Department of Toxic Substances Control (DTSC) screening levels (shown in black) or November 2022 U.S. Environmental Protection Agency (EPA) Regional Screening Levels (shown in blue) for VOCs, and 2019 SFBWQCB Environmental Screening Levels (ESLs) for TPH-g (shown in green) for indoor air by the noted attenuation factor.

<sup>4</sup> Methane was compared against a Lower Explosive Limit of 5% as measured by a hand-held GemTech 5000 Flame Ionization Detector

C = sample was analyzed via TO-14 due to high concentration of analytes

Farallon = Farallon Consulting, LLC

ND = not detected at or above the laboratory reporting limit

Partner = Partner Engineering and Science, Inc.

PCE = tetrachloroethene

SGSL = soil gas screening level

TCE = trichloroethene

TPH-g = total petroleum hydrocarbons, gasoline range

**APPENDIX B  
DTSC INFORMATION ADVISORY,  
CLEAN IMPORTED FILL MATERIAL**

MEDIA MANAGEMENT PLAN  
5355 East Airplane Drive  
Ontario, California

Farallon PN: 1071-080 (Task 2)

# Information Advisory

## Clean Imported Fill Material



October 2001

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

***It is DTSC's mission to restore, protect and enhance the environment, to ensure public health, environmental quality and economic vitality, by regulating hazardous waste, conducting and overseeing cleanups, and developing and promoting pollution prevention.***

State of California



California  
Environmental  
Protection Agency



### Executive Summary

*This fact sheet has been prepared to ensure that inappropriate fill material is not introduced onto sensitive land use properties under the oversight of the DTSC or applicable regulatory authorities. Sensitive land use properties include those that contain facilities such as hospitals, homes, day care centers, and schools. This document only focuses on human health concerns and ecological issues are not addressed.*

*It identifies those types of land use activities that may be appropriate when determining whether a site may be used as a fill material source area. It also provides guidelines for the appropriate types of analyses that should be performed relative to the former land use, and for the number of samples that should be collected and analyzed based on the estimated volume of fill material that will need to be used. The information provided in this fact sheet is not regulatory in nature, rather is to be used as a guide, and in most situations the final decision as to the acceptability of fill material for a sensitive land use property is made on a case-by-case basis by the appropriate regulatory agency.*

### Introduction

The use of imported fill material has recently come under scrutiny because of the instances where contaminated soil has been brought onto an otherwise clean site. However, there are currently no established standards in the statutes or regulations that address environmental requirements for imported fill material. Therefore, the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) has prepared this fact sheet to identify procedures that can be used to minimize the possibility of introducing contaminated soil onto a site that requires imported fill material. Such sites include those that are undergoing site remediation, corrective action, and closure activities overseen by DTSC or the appropriate regulatory agency. These procedures may also apply to construction projects that will result in sensitive land uses. The intent of this fact sheet is to protect people who live on or otherwise use a sensitive land use property. By using this fact sheet as a guide, the reader will minimize the chance of introducing fill material that may result in potential risk to human health or the environment at some future time.

***The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website at [www.dtsc.ca.gov](http://www.dtsc.ca.gov).***

## Overview

Both natural and manmade fill materials are used for a variety of purposes. Fill material properties are commonly controlled to meet the necessary site specific engineering specifications. Because most sites requiring fill material are located in or near urban areas, the fill materials are often obtained from construction projects that generate an excess of soil, and from demolition debris (asphalt, broken concrete, etc.). However, materials from those types of sites may or may not be appropriate, depending on the proposed use of the fill, and the quality of the assessment and/or mitigation measures, if necessary. Therefore, unless material from construction projects can be demonstrated to be free of contami-

nation and/or appropriate for the proposed use, the use of that material as fill should be avoided.

## Selecting Fill Material

In general, the fill source area should be located in nonindustrial areas, and not from sites undergoing an environmental cleanup. Nonindustrial sites include those that were previously undeveloped, or used solely for residential or agricultural purposes. If the source is from an agricultural area, care should be taken to insure that the fill does not include former agricultural waste process byproducts such as manure or other decomposed organic material. Undesirable sources of fill material include industrial and/or commercial sites where hazardous ma-

## Potential Contaminants Based on the Fill Source Area

Fill Source:	Target Compounds
Land near to an existing freeway	Lead (EPA methods 6010B or 7471A), PAHs (EPA method 8310)
Land near a mining area or rock quarry	Heavy Metals (EPA methods 6010B and 7471A), asbestos (polarized light microscopy), pH
Agricultural land	Pesticides (Organochlorine Pesticides: EPA method 8081A or 8080A; Organophosphorus Pesticides: EPA method 8141A; Chlorinated Herbicides: EPA method 8151A), heavy metals (EPA methods 6010B and 7471A)
Residential/acceptable commercial land	VOCs (EPA method 8021 or 8260B, as appropriate and combined with collection by EPA Method 5035), semi-VOCs (EPA method 8270C), TPH (modified EPA method 8015), PCBs (EPA method 8082 or 8080A), heavy metals including lead (EPA methods 6010B and 7471A), asbestos (OSHA Method ID-191)

*\*The recommended analyses should be performed in accordance with USEPA SW-846 methods (1996). Other possible analyses include Hexavalent Chromium: EPA method 7199*

## Recommended Fill Material Sampling Schedule

Area of Individual Borrow Area	Sampling Requirements
2 acres or less	Minimum of 4 samples
2 to 4 acres	Minimum of 1 sample every 1/2 acre
4 to 10 acres	Minimum of 8 samples
Greater than 10 acres	Minimum of 8 locations with 4 subsamples per location
Volume of Borrow Area Stockpile	Samples per Volume
Up to 1,000 cubic yards	1 sample per 250 cubic yards
1,000 to 5,000 cubic yards	4 samples for first 1000 cubic yards + 1 sample per each additional 500 cubic yards
Greater than 5,000 cubic yards	12 samples for first 5,000 cubic yards + 1 sample per each additional 1,000 cubic yards

terials were used, handled or stored as part of the business operations, or unpaved parking areas where petroleum hydrocarbons could have been spilled or leaked into the soil. Undesirable commercial sites include former gasoline service stations, retail strip malls that contained dry cleaners or photographic processing facilities, paint stores, auto repair and/or painting facilities. Undesirable industrial facilities include metal processing shops, manufacturing facilities, aerospace facilities, oil refineries, waste treatment plants, etc. Alternatives to using fill from construction sites include the use of fill material obtained from a commercial supplier of fill material or from soil pits in rural or suburban areas. However, care should be taken to ensure that those materials are also uncontaminated.

### Documentation and Analysis

In order to minimize the potential of introducing contaminated fill material onto a site, it is necessary

to verify through documentation that the fill source is appropriate and/or to have the fill material analyzed for potential contaminants based on the location and history of the source area. Fill documentation should include detailed information on the previous use of the land from where the fill is taken, whether an environmental site assessment was performed and its findings, and the results of any testing performed. It is recommended that any such documentation should be signed by an appropriately licensed (CA-registered) individual. If such documentation is not available or is inadequate, samples of the fill material should be chemically analyzed. Analysis of the fill material should be based on the source of the fill and knowledge of the prior land use.

Detectable amounts of compounds of concern within the fill material should be evaluated for risk in accordance with the DTSC Preliminary Endangerment Assessment (PEA) Guidance Manual. If



metal analyses are performed, only those metals (CAM 17 / Title 22) to which risk levels have been assigned need to be evaluated. At present, the DTSC is working to establish California Screening Levels (CSL) to determine whether some compounds of concern pose a risk. Until such time as these CSL values are established, DTSC recommends that the DTSC PEA Guidance Manual or an equivalent process be referenced. This guidance may include the Regional Water Quality Control Board's (RWQCB) guidelines for reuse of non-hazardous petroleum hydrocarbon contaminated soil as applied to Total Petroleum Hydrocarbons (TPH) only. The RWQCB guidelines should not be used for volatile organic compounds (VOCs) or semi-volatile organic compounds (SVOCS). In addition, a standard laboratory data package, including a summary of the QA/QC (Quality Assurance/Quality Control) sample results should also accompany all analytical reports.

When possible, representative samples should be collected at the borrow area while the potential fill material is still in place, and analyzed prior to removal from the borrow area. In addition to performing the appropriate analyses of the fill material, an appropriate number of samples should also be determined based on the approximate volume or area of soil to be used as fill material. The table above can be used as a guide to determine the number of samples needed to adequately characterize the fill material when sampled at the borrow site.

## Alternative Sampling

A Phase I or PEA may be conducted prior to sampling to determine whether the borrow area may have been impacted by previous activities on the property. After the property has been evaluated, any sampling that may be required can be determined during a meeting with DTSC or appropriate regulatory agency. However, if it is not possible to analyze the fill material at the borrow area or determine that it is appropriate for use via a Phase I or PEA, it is recommended that one (1) sample per truckload be collected and analyzed for all com-

pounds of concern to ensure that the imported soil is uncontaminated and acceptable. (See chart on Potential Contaminants Based on the Fill Source Area for appropriate analyses). This sampling frequency may be modified upon consultation with the DTSC or appropriate regulatory agency if all of the fill material is derived from a common borrow area. However, fill material that is not characterized at the borrow area will need to be stockpiled either on or off-site until the analyses have been completed. In addition, should contaminants exceeding acceptance criteria be identified in the stockpiled fill material, that material will be deemed unacceptable and new fill material will need to be obtained, sampled and analyzed. Therefore, the DTSC recommends that all sampling and analyses should be completed prior to delivery to the site to ensure the soil is free of contamination, and to eliminate unnecessary transportation charges for unacceptable fill material.

Composite sampling for fill material characterization may or may not be appropriate, depending on quality and homogeneity of source/borrow area, and compounds of concern. Compositing samples for volatile and semivolatile constituents is not acceptable. Composite sampling for heavy metals, pesticides, herbicides or PAH's from unanalyzed stockpiled soil is also unacceptable, unless it is stockpiled at the borrow area and originates from the same source area. In addition, if samples are composited, they should be from the same soil layer, and not from different soil layers.

When very large volumes of fill material are anticipated, or when larger areas are being considered as borrow areas, the DTSC recommends that a Phase I or PEA be conducted on the area to ensure that the borrow area has not been impacted by previous activities on the property. After the property has been evaluated, any sampling that may be required can be determined during a meeting with the DTSC.

*For further information, call Shahir Haddad, P.E. at (714) 484-5368.*

**APPENDIX C**  
**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**  
***SOUTH COAST AQMD RULE BOOK, RULE 403, FUGITIVE DUST***

MEDIA MANAGEMENT PLAN  
5355 East Airplane Drive  
Ontario, California

Farallon PN: 1071-080 (Task 2)

(Adopted May 7, 1976) (Amended November 6, 1992)  
(Amended July 9, 1993) (Amended February 14, 1997)  
(Amended December 11, 1998)(Amended April 2, 2004)  
(Amended June 3, 2005)

**RULE 403. FUGITIVE DUST**

(a) Purpose

The purpose of this Rule is to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions.

(b) Applicability

The provisions of this Rule shall apply to any activity or man-made condition capable of generating fugitive dust.

(c) Definitions

- (1) ACTIVE OPERATIONS means any source capable of generating fugitive dust, including, but not limited to, earth-moving activities, construction/demolition activities, disturbed surface area, or heavy- and light-duty vehicular movement.
- (2) AGGREGATE-RELATED PLANTS are defined as facilities that produce and / or mix sand and gravel and crushed stone.
- (3) AGRICULTURAL HANDBOOK means the region-specific guidance document that has been approved by the Governing Board or hereafter approved by the Executive Officer and the U.S. EPA. For the South Coast Air Basin, the Board-approved region-specific guidance document is the Rule 403 Agricultural Handbook dated December 1998. For the Coachella Valley, the Board-approved region-specific guidance document is the Rule 403 Coachella Valley Agricultural Handbook dated April 2, 2004.
- (4) ANEMOMETERS are devices used to measure wind speed and direction in accordance with the performance standards, and maintenance and calibration criteria as contained in the most recent Rule 403 Implementation Handbook.
- (5) BEST AVAILABLE CONTROL MEASURES means fugitive dust control actions that are set forth in Table 1 of this Rule.

- (6) BULK MATERIAL is sand, gravel, soil, aggregate material less than two inches in length or diameter, and other organic or inorganic particulate matter.
- (7) CEMENT MANUFACTURING FACILITY is any facility that has a cement kiln at the facility.
- (8) CHEMICAL STABILIZERS are any non-toxic chemical dust suppressant which must not be used if prohibited for use by the Regional Water Quality Control Boards, the California Air Resources Board, the U.S. Environmental Protection Agency (U.S. EPA), or any applicable law, rule or regulation. The chemical stabilizers shall meet any specifications, criteria, or tests required by any federal, state, or local water agency. Unless otherwise indicated, the use of a non-toxic chemical stabilizer shall be of sufficient concentration and application frequency to maintain a stabilized surface.
- (9) COMMERCIAL POULTRY RANCH means any building, structure, enclosure, or premises where more than 100 fowl are kept or maintained for the primary purpose of producing eggs or meat for sale or other distribution.
- (10) CONFINED ANIMAL FACILITY means a source or group of sources of air pollution at an agricultural source for the raising of 3,360 or more fowl or 50 or more animals, including but not limited to, any structure, building, installation, farm, corral, coop, feed storage area, milking parlor, or system for the collection, storage, or distribution of solid and liquid manure; if domesticated animals, including horses, sheep, goats, swine, beef cattle, rabbits, chickens, turkeys, or ducks are corralled, penned, or otherwise caused to remain in restricted areas for commercial agricultural purposes and feeding is by means other than grazing.
- (11) CONSTRUCTION/DEMOLITION ACTIVITIES means any on-site mechanical activities conducted in preparation of, or related to, the building, alteration, rehabilitation, demolition or improvement of property, including, but not limited to the following activities: grading, excavation, loading, crushing, cutting, planing, shaping or ground breaking.
- (12) CONTRACTOR means any person who has a contractual arrangement to conduct an active operation for another person.
- (13) DAIRY FARM is an operation on a property, or set of properties that are contiguous or separated only by a public right-of-way, that raises cows or

produces milk from cows for the purpose of making a profit or for a livelihood. Heifer and calf farms are dairy farms.

- (14) **DISTURBED SURFACE AREA** means a portion of the earth's surface which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural soil condition, thereby increasing the potential for emission of fugitive dust. This definition excludes those areas which have:
- (A) been restored to a natural state, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby natural conditions;
  - (B) been paved or otherwise covered by a permanent structure; or
  - (C) sustained a vegetative ground cover of at least 70 percent of the native cover for a particular area for at least 30 days.
- (15) **DUST SUPPRESSANTS** are water, hygroscopic materials, or non-toxic chemical stabilizers used as a treatment material to reduce fugitive dust emissions.
- (16) **EARTH-MOVING ACTIVITIES** means the use of any equipment for any activity where soil is being moved or uncovered, and shall include, but not be limited to the following: grading, earth cutting and filling operations, loading or unloading of dirt or bulk materials, adding to or removing from open storage piles of bulk materials, landfill operations, weed abatement through disking, and soil mulching.
- (17) **DUST CONTROL SUPERVISOR** means a person with the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule 403 requirements at an active operation.
- (18) **FUGITIVE DUST** means any solid particulate matter that becomes airborne, other than that emitted from an exhaust stack, directly or indirectly as a result of the activities of any person.
- (19) **HIGH WIND CONDITIONS** means that instantaneous wind speeds exceed 25 miles per hour.
- (20) **INACTIVE DISTURBED SURFACE AREA** means any disturbed surface area upon which active operations have not occurred or are not expected to occur for a period of 20 consecutive days.
- (21) **LARGE OPERATIONS** means any active operations on property which contains 50 or more acres of disturbed surface area; or any earth-moving operation with a daily earth-moving or throughput volume of 3,850 cubic

meters (5,000 cubic yards) or more three times during the most recent 365-day period.

- (22) OPEN STORAGE PILE is any accumulation of bulk material, which is not fully enclosed, covered or chemically stabilized, and which attains a height of three feet or more and a total surface area of 150 or more square feet.
- (23) PARTICULATE MATTER means any material, except uncombined water, which exists in a finely divided form as a liquid or solid at standard conditions.
- (24) PAVED ROAD means a public or private improved street, highway, alley, public way, or easement that is covered by typical roadway materials, but excluding access roadways that connect a facility with a public paved roadway and are not open to through traffic. Public paved roads are those open to public access and that are owned by any federal, state, county, municipal or any other governmental or quasi-governmental agencies. Private paved roads are any paved roads not defined as public.
- (25) PM<sub>10</sub> means particulate matter with an aerodynamic diameter smaller than or equal to 10 microns as measured by the applicable State and Federal reference test methods.
- (26) PROPERTY LINE means the boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) shall refer to the boundaries dividing the areas of all sub-tenancies.
- (27) RULE 403 IMPLEMENTATION HANDBOOK means a guidance document that has been approved by the Governing Board on April 2, 2004 or hereafter approved by the Executive Officer and the U.S. EPA.
- (28) SERVICE ROADS are paved or unpaved roads that are used by one or more public agencies for inspection or maintenance of infrastructure and which are not typically used for construction-related activity.
- (29) SIMULTANEOUS SAMPLING means the operation of two PM<sub>10</sub> samplers in such a manner that one sampler is started within five minutes of the other, and each sampler is operated for a consecutive period which must be not less than 290 minutes and not more than 310 minutes.
- (30) SOUTH COAST AIR BASIN means the non-desert portions of Los Angeles, Riverside, and San Bernardino counties and all of Orange

County as defined in California Code of Regulations, Title 17, Section 60104. The area is bounded on the west by the Pacific Ocean, on the north and east by the San Gabriel, San Bernardino, and San Jacinto Mountains, and on the south by the San Diego county line.

- (31) **STABILIZED SURFACE** means any previously disturbed surface area or open storage pile which, through the application of dust suppressants, shows visual or other evidence of surface crusting and is resistant to wind-driven fugitive dust and is demonstrated to be stabilized. Stabilization can be demonstrated by one or more of the applicable test methods contained in the Rule 403 Implementation Handbook.
  - (32) **TRACK-OUT** means any bulk material that adheres to and agglomerates on the exterior surface of motor vehicles, haul trucks, and equipment (including tires) that have been released onto a paved road and can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.
  - (33) **TYPICAL ROADWAY MATERIALS** means concrete, asphaltic concrete, recycled asphalt, asphalt, or any other material of equivalent performance as determined by the Executive Officer, and the U.S. EPA.
  - (34) **UNPAVED ROADS** means any unsealed or unpaved roads, equipment paths, or travel ways that are not covered by typical roadway materials. Public unpaved roads are any unpaved roadway owned by federal, state, county, municipal or other governmental or quasi-governmental agencies. Private unpaved roads are all other unpaved roadways not defined as public.
  - (35) **VISIBLE ROADWAY DUST** means any sand, soil, dirt, or other solid particulate matter which is visible upon paved road surfaces and which can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.
  - (36) **WIND-DRIVEN FUGITIVE DUST** means visible emissions from any disturbed surface area which is generated by wind action alone.
  - (37) **WIND GUST** is the maximum instantaneous wind speed as measured by an anemometer.
- (d) Requirements
- (1) No person shall cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area such that:

- (A) the dust remains visible in the atmosphere beyond the property line of the emission source; or
  - (B) the dust emission exceeds 20 percent opacity (as determined by the appropriate test method included in the Rule 403 Implementation Handbook), if the dust emission is the result of movement of a motorized vehicle.
- (2) No person shall conduct active operations without utilizing the applicable best available control measures included in Table 1 of this Rule to minimize fugitive dust emissions from each fugitive dust source type within the active operation.
- (3) No person shall cause or allow PM<sub>10</sub> levels to exceed 50 micrograms per cubic meter when determined, by simultaneous sampling, as the difference between upwind and downwind samples collected on high-volume particulate matter samplers or other U.S. EPA-approved equivalent method for PM<sub>10</sub> monitoring. If sampling is conducted, samplers shall be:
- (A) Operated, maintained, and calibrated in accordance with 40 Code of Federal Regulations (CFR), Part 50, Appendix J, or appropriate U.S. EPA-published documents for U.S. EPA-approved equivalent method(s) for PM<sub>10</sub>.
  - (B) Reasonably placed upwind and downwind of key activity areas and as close to the property line as feasible, such that other sources of fugitive dust between the sampler and the property line are minimized.
- (4) No person shall allow track-out to extend 25 feet or more in cumulative length from the point of origin from an active operation. Notwithstanding the preceding, all track-out from an active operation shall be removed at the conclusion of each workday or evening shift.
- (5) No person shall conduct an active operation with a disturbed surface area of five or more acres, or with a daily import or export of 100 cubic yards or more of bulk material without utilizing at least one of the measures listed in subparagraphs (d)(5)(A) through (d)(5)(E) at each vehicle egress from the site to a paved public road.
- (A) Install a pad consisting of washed gravel (minimum-size: one inch) maintained in a clean condition to a depth of at least six inches and extending at least 30 feet wide and at least 50 feet long.



- (B) Pave the surface extending at least 100 feet and at least 20 feet wide.
  - (C) Utilize a wheel shaker/wheel spreading device consisting of raised dividers (rails, pipe, or grates) at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.
  - (D) Install and utilize a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.
  - (E) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the actions specified in subparagraphs (d)(5)(A) through (d)(5)(D).
- (6) Beginning January 1, 2006, any person who operates or authorizes the operation of a confined animal facility subject to this Rule shall implement the applicable conservation management practices specified in Table 4 of this Rule.
- (e) Additional Requirements for Large Operations
- (1) Any person who conducts or authorizes the conducting of a large operation subject to this Rule shall implement the applicable actions specified in Table 2 of this Rule at all times and shall implement the applicable actions specified in Table 3 of this Rule when the applicable performance standards can not be met through use of Table 2 actions; and shall:
    - (A) submit a fully executed Large Operation Notification (Form 403 N) to the Executive Officer within 7 days of qualifying as a large operation;
    - (B) include, as part of the notification, the name(s), address(es), and phone number(s) of the person(s) responsible for the submittal, and a description of the operation(s), including a map depicting the location of the site;
    - (C) maintain daily records to document the specific dust control actions taken, maintain such records for a period of not less than three years; and make such records available to the Executive Officer upon request;

- (D) install and maintain project signage with project contact signage that meets the minimum standards of the Rule 403 Implementation Handbook, prior to initiating any earthmoving activities;
  - (E) identify a dust control supervisor that:
    - (i) is employed by or contracted with the property owner or developer;
    - (ii) is on the site or available on-site within 30 minutes during working hours;
    - (iii) has the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule requirements;
    - (iv) has completed the AQMD Fugitive Dust Control Class and has been issued a valid Certificate of Completion for the class; and
  - (F) notify the Executive Officer in writing within 30 days after the site no longer qualifies as a large operation as defined by paragraph (c)(18).
- (2) Any Large Operation Notification submitted to the Executive Officer or AQMD-approved dust control plan shall be valid for a period of one year from the date of written acceptance by the Executive Officer. Any Large Operation Notification accepted pursuant to paragraph (e)(1), excluding those submitted by aggregate-related plants and cement manufacturing facilities must be resubmitted annually by the person who conducts or authorizes the conducting of a large operation, at least 30 days prior to the expiration date, or the submittal shall no longer be valid as of the expiration date. If all fugitive dust sources and corresponding control measures or special circumstances remain identical to those identified in the previously accepted submittal or in an AQMD-approved dust control plan, the resubmittal may be a simple statement of no-change (Form 403NC).
- (f) **Compliance Schedule**  
The newly amended provisions of this Rule shall become effective upon adoption. Pursuant to subdivision (e), any existing site that qualifies as a large operation will have 60 days from the date of Rule adoption to comply with the notification and recordkeeping requirements for large operations. Any Large Operation

Notification or AQMD-approved dust control plan which has been accepted prior to the date of adoption of these amendments shall remain in effect and the Large Operation Notification or AQMD-approved dust control plan annual resubmittal date shall be one year from adoption of this Rule amendment.

(g) Exemptions

(1) The provisions of this Rule shall not apply to:

- (A) Dairy farms.
- (B) Confined animal facilities provided that the combined disturbed surface area within one continuous property line is one acre or less.
- (C) Agricultural vegetative crop operations provided that the combined disturbed surface area within one continuous property line and not separated by a paved public road is 10 acres or less.
- (D) Agricultural vegetative crop operations within the South Coast Air Basin, whose combined disturbed surface area includes more than 10 acres provided that the person responsible for such operations:
  - (i) voluntarily implements the conservation management practices contained in the Rule 403 Agricultural Handbook;
  - (ii) completes and maintains the self-monitoring form documenting sufficient conservation management practices, as described in the Rule 403 Agricultural Handbook; and
  - (iii) makes the completed self-monitoring form available to the Executive Officer upon request.
- (E) Agricultural vegetative crop operations outside the South Coast Air Basin whose combined disturbed surface area includes more than 10 acres provided that the person responsible for such operations:
  - (i) voluntarily implements the conservation management practices contained in the Rule 403 Coachella Valley Agricultural Handbook; and
  - (ii) completes and maintains the self-monitoring form documenting sufficient conservation management practices, as described in the Rule 403 Coachella Valley Agricultural Handbook; and
  - (iii) makes the completed self-monitoring form available to the Executive Officer upon request.

- (F) Active operations conducted during emergency life-threatening situations, or in conjunction with any officially declared disaster or state of emergency.
  - (G) Active operations conducted by essential service utilities to provide electricity, natural gas, telephone, water and sewer during periods of service outages and emergency disruptions.
  - (H) Any contractor subsequent to the time the contract ends, provided that such contractor implemented the required control measures during the contractual period.
  - (I) Any grading contractor, for a phase of active operations, subsequent to the contractual completion of that phase of earth-moving activities, provided that the required control measures have been implemented during the entire phase of earth-moving activities, through and including five days after the final grading inspection.
  - (J) Weed abatement operations ordered by a county agricultural commissioner or any state, county, or municipal fire department, provided that:
    - (i) mowing, cutting or other similar process is used which maintains weed stubble at least three inches above the soil; and
    - (ii) any discing or similar operation which cuts into and disturbs the soil, where watering is used prior to initiation of these activities, and a determination is made by the agency issuing the weed abatement order that, due to fire hazard conditions, rocks, or other physical obstructions, it is not practical to meet the conditions specified in clause (g)(1)(H)(i). The provisions this clause shall not exempt the owner of any property from stabilizing, in accordance with paragraph (d)(2), disturbed surface areas which have been created as a result of the weed abatement actions.
  - (K) sandblasting operations.
- (2) The provisions of paragraphs (d)(1) and (d)(3) shall not apply:
- (A) When wind gusts exceed 25 miles per hour, provided that:

- (i) The required Table 3 contingency measures in this Rule are implemented for each applicable fugitive dust source type, and;
    - (ii) records are maintained in accordance with subparagraph (e)(1)(C).
  - (B) To unpaved roads, provided such roads:
    - (i) are used solely for the maintenance of wind-generating equipment; or
    - (ii) are unpaved public alleys as defined in Rule 1186; or
    - (iii) are service roads that meet all of the following criteria:
      - (a) are less than 50 feet in width at all points along the road;
      - (b) are within 25 feet of the property line; and
      - (c) have a traffic volume less than 20 vehicle-trips per day.
  - (C) To any active operation, open storage pile, or disturbed surface area for which necessary fugitive dust preventive or mitigative actions are in conflict with the federal Endangered Species Act, as determined in writing by the State or federal agency responsible for making such determinations.
- (3) The provisions of (d)(2) shall not apply to any aggregate-related plant or cement manufacturing facility that implements the applicable actions specified in Table 2 of this Rule at all times and shall implement the applicable actions specified in Table 3 of this Rule when the applicable performance standards of paragraphs (d)(1) and (d)(3) can not be met through use of Table 2 actions.
  - (4) The provisions of paragraphs (d)(1), (d)(2), and (d)(3) shall not apply to:
    - (A) Blasting operations which have been permitted by the California Division of Industrial Safety; and
    - (B) Motion picture, television, and video production activities when dust emissions are required for visual effects. In order to obtain this exemption, the Executive Officer must receive notification in writing at least 72 hours in advance of any such activity and no nuisance results from such activity.
  - (5) The provisions of paragraph (d)(3) shall not apply if the dust control actions, as specified in Table 2, are implemented on a routine basis for

each applicable fugitive dust source type. To qualify for this exemption, a person must maintain records in accordance with subparagraph (e)(1)(C).

- (6) The provisions of paragraph (d)(4) shall not apply to earth coverings of public paved roadways where such coverings are approved by a local government agency for the protection of the roadway, and where such coverings are used as roadway crossings for haul vehicles provided that such roadway is closed to through traffic and visible roadway dust is removed within one day following the cessation of activities.
- (7) The provisions of subdivision (e) shall not apply to:
  - (A) officially-designated public parks and recreational areas, including national parks, national monuments, national forests, state parks, state recreational areas, and county regional parks.
  - (B) any large operation which is required to submit a dust control plan to any city or county government which has adopted a District-approved dust control ordinance.
  - (C) any large operation subject to Rule 1158, which has an approved dust control plan pursuant to Rule 1158, provided that all sources of fugitive dust are included in the Rule 1158 plan.
- (8) The provisions of subparagraph (e)(1)(A) through (e)(1)(C) shall not apply to any large operation with an AQMD-approved fugitive dust control plan provided that there is no change to the sources and controls as identified in the AQMD-approved fugitive dust control plan.

(h) Fees

Any person conducting active operations for which the Executive Officer conducts upwind/downwind monitoring for PM<sub>10</sub> pursuant to paragraph (d)(3) shall be assessed applicable Ambient Air Analysis Fees pursuant to Rule 304.1. Applicable fees shall be waived for any facility which is exempted from paragraph (d)(3) or meets the requirements of paragraph (d)(3).

**TABLE 1  
BEST AVAILABLE CONTROL MEASURES  
(Applicable to All Construction Activity Sources)**

Source Category	Control Measure	Guidance
Backfilling	01-1 Stabilize backfill material when not actively handling; and 01-2 Stabilize backfill material during handling; and 01-3 Stabilize soil at completion of activity.	<ul style="list-style-type: none"> <li>✓ Mix backfill soil with water prior to moving</li> <li>✓ Dedicate water truck or high capacity hose to backfilling equipment</li> <li>✓ Empty loader bucket slowly so that no dust plumes are generated</li> <li>✓ Minimize drop height from loader bucket</li> </ul>
Clearing and grubbing	02-1 Maintain stability of soil through pre-watering of site prior to clearing and grubbing; and 02-2 Stabilize soil during clearing and grubbing activities; and 02-3 Stabilize soil immediately after clearing and grubbing activities.	<ul style="list-style-type: none"> <li>✓ Maintain live perennial vegetation where possible</li> <li>✓ Apply water in sufficient quantity to prevent generation of dust plumes</li> </ul>
Clearing forms	03-1 Use water spray to clear forms; or 03-2 Use sweeping and water spray to clear forms; or 03-3 Use vacuum system to clear forms.	<ul style="list-style-type: none"> <li>✓ Use of high pressure air to clear forms may cause exceedance of Rule requirements</li> </ul>
Crushing	04-1 Stabilize surface soils prior to operation of support equipment; and 04-2 Stabilize material after crushing.	<ul style="list-style-type: none"> <li>✓ Follow permit conditions for crushing equipment</li> <li>✓ Pre-water material prior to loading into crusher</li> <li>✓ Monitor crusher emissions opacity</li> <li>✓ Apply water to crushed material to prevent dust plumes</li> </ul>

**TABLE 1  
BEST AVAILABLE CONTROL MEASURES  
(Applicable to All Construction Activity Sources)**

Source Category	Control Measure	Guidance
Cut and fill	05-1 Pre-water soils prior to cut and fill activities; and 05-2 Stabilize soil during and after cut and fill activities.	<ul style="list-style-type: none"> <li>✓ For large sites, pre-water with sprinklers or water trucks and allow time for penetration</li> <li>✓ Use water trucks/pulls to water soils to depth of cut prior to subsequent cuts</li> </ul>
Demolition – mechanical/manual	06-1 Stabilize wind erodible surfaces to reduce dust; and 06-2 Stabilize surface soil where support equipment and vehicles will operate; and 06-3 Stabilize loose soil and demolition debris; and 06-4 Comply with AQMD Rule 1403.	<ul style="list-style-type: none"> <li>✓ Apply water in sufficient quantities to prevent the generation of visible dust plumes</li> </ul>
Disturbed soil	07-1 Stabilize disturbed soil throughout the construction site; and 07-2 Stabilize disturbed soil between structures	<ul style="list-style-type: none"> <li>✓ Limit vehicular traffic and disturbances on soils where possible</li> <li>✓ If interior block walls are planned, install as early as possible</li> <li>✓ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes</li> </ul>
Earth-moving activities	08-1 Pre-apply water to depth of proposed cuts; and 08-2 Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction; and 08-3 Stabilize soils once earth-moving activities are complete.	<ul style="list-style-type: none"> <li>✓ Grade each project phase separately, timed to coincide with construction phase</li> <li>✓ Upwind fencing can prevent material movement on site</li> <li>✓ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes</li> </ul>



**TABLE 1  
BEST AVAILABLE CONTROL MEASURES  
(Applicable to All Construction Activity Sources)**

Source Category	Control Measure	Guidance
Importing/exporting of bulk materials	09-1 Stabilize material while loading to reduce fugitive dust emissions; and 09-2 Maintain at least six inches of freeboard on haul vehicles; and 09-3 Stabilize material while transporting to reduce fugitive dust emissions; and 09-4 Stabilize material while unloading to reduce fugitive dust emissions; and 09-5 Comply with Vehicle Code Section 23114.	<ul style="list-style-type: none"> <li>✓ Use tarps or other suitable enclosures on haul trucks</li> <li>✓ Check belly-dump truck seals regularly and remove any trapped rocks to prevent spillage</li> <li>✓ Comply with track-out prevention/mitigation requirements</li> <li>✓ Provide water while loading and unloading to reduce visible dust plumes</li> </ul>
Landscaping	10-1 Stabilize soils, materials, slopes	<ul style="list-style-type: none"> <li>✓ Apply water to materials to stabilize</li> <li>✓ Maintain materials in a crusted condition</li> <li>✓ Maintain effective cover over materials</li> <li>✓ Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes</li> <li>✓ Hydroseed prior to rain season</li> </ul>
Road shoulder maintenance	11-1 Apply water to unpaved shoulders prior to clearing; and 11-2 Apply chemical dust suppressants and/or washed gravel to maintain a stabilized surface after completing road shoulder maintenance.	<ul style="list-style-type: none"> <li>✓ Installation of curbing and/or paving of road shoulders can reduce recurring maintenance costs</li> <li>✓ Use of chemical dust suppressants can inhibit vegetation growth and reduce future road shoulder maintenance costs</li> </ul>

**TABLE 1  
BEST AVAILABLE CONTROL MEASURES  
(Applicable to All Construction Activity Sources)**

Source Category	Control Measure	Guidance
Screening	12-1 Pre-water material prior to screening; and 12-2 Limit fugitive dust emissions to opacity and plume length standards; and 12-3 Stabilize material immediately after screening.	<ul style="list-style-type: none"> <li>✓ Dedicate water truck or high capacity hose to screening operation</li> <li>✓ Drop material through the screen slowly and minimize drop height</li> <li>✓ Install wind barrier with a porosity of no more than 50% upwind of screen to the height of the drop point</li> </ul>
Staging areas	13-1 Stabilize staging areas during use; and 13-2 Stabilize staging area soils at project completion.	<ul style="list-style-type: none"> <li>✓ Limit size of staging area</li> <li>✓ Limit vehicle speeds to 15 miles per hour</li> <li>✓ Limit number and size of staging area entrances/exits</li> </ul>
Stockpiles/ Bulk Material Handling	14-1 Stabilize stockpiled materials. 14-2 Stockpiles within 100 yards of off-site occupied buildings must not be greater than eight feet in height; or must have a road bladed to the top to allow water truck access or must have an operational water irrigation system that is capable of complete stockpile coverage.	<ul style="list-style-type: none"> <li>✓ Add or remove material from the downwind portion of the storage pile</li> <li>✓ Maintain storage piles to avoid steep sides or faces</li> </ul>

**TABLE 1**  
**BEST AVAILABLE CONTROL MEASURES**  
**(Applicable to All Construction Activity Sources)**

Source Category	Control Measure	Guidance
Traffic areas for construction activities	15-1 Stabilize all off-road traffic and parking areas; and 15-2 Stabilize all haul routes; and 15-3 Direct construction traffic over established haul routes.	<ul style="list-style-type: none"> <li>✓ Apply gravel/paving to all haul routes as soon as possible to all future roadway areas</li> <li>✓ Barriers can be used to ensure vehicles are only used on established parking areas/haul routes</li> </ul>
Trenching	16-1 Stabilize surface soils where trencher or excavator and support equipment will operate; and 16-2 Stabilize soils at the completion of trenching activities.	<ul style="list-style-type: none"> <li>✓ Pre-watering of soils prior to trenching is an effective preventive measure. For deep trenching activities, pre-trench to 18 inches soak soils via the pre-trench and resuming trenching</li> <li>✓ Washing mud and soils from equipment at the conclusion of trenching activities can prevent crusting and drying of soil on equipment</li> </ul>
Truck loading	17-1 Pre-water material prior to loading; and 17-2 Ensure that freeboard exceeds six inches (CVC 23114)	<ul style="list-style-type: none"> <li>✓ Empty loader bucket such that no visible dust plumes are created</li> <li>✓ Ensure that the loader bucket is close to the truck to minimize drop height while loading</li> </ul>
Turf Overseeding	18-1 Apply sufficient water immediately prior to conducting turf vacuuming activities to meet opacity and plume length standards; and 18-2 Cover haul vehicles prior to exiting the site.	<ul style="list-style-type: none"> <li>✓ Haul waste material immediately off-site</li> </ul>

**TABLE 1  
BEST AVAILABLE CONTROL MEASURES  
(Applicable to All Construction Activity Sources)**

Source Category	Control Measure	Guidance
Unpaved roads/parking lots	19-1 Stabilize soils to meet the applicable performance standards; and 19-2 Limit vehicular travel to established unpaved roads (haul routes) and unpaved parking lots.	✓ Restricting vehicular access to established unpaved travel paths and parking lots can reduce stabilization requirements
Vacant land	20-1 In instances where vacant lots are 0.10 acre or larger and have a cumulative area of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, prevent motor vehicle and/or off-road vehicle trespassing, parking and/or access by installing barriers, curbs, fences, gates, posts, signs, shrubs, trees or other effective control measures.	

**Table 2  
DUST CONTROL MEASURES FOR LARGE OPERATIONS**

<b>FUGITIVE DUST SOURCE CATEGORY</b>	<b>CONTROL ACTIONS</b>
<p><b>Earth-moving (except construction cutting and filling areas, and mining operations)</b></p>	<p>(1a) Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; OR</p> <p>(1a-1) For any earth-moving which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.</p>
<p><b>Earth-moving: Construction fill areas:</b></p>	<p>(1b) Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Executive Officer and the California Air Resources Board and the U.S. EPA, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations.</p>

Table 2 (Continued)

<b>FUGITIVE DUST SOURCE CATEGORY</b>	<b>CONTROL ACTIONS</b>
<b>Earth-moving: Construction cut areas and mining operations:</b>	(1c) Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.
<b>Disturbed surface areas (except completed grading areas)</b>	(2a/b) Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 percent of the unstabilized area.
<b>Disturbed surface areas: Completed grading areas</b>	(2c) Apply chemical stabilizers within five working days of grading completion; OR  (2d) Take actions (3a) or (3c) specified for inactive disturbed surface areas.
<b>Inactive disturbed surface areas</b>	(3a) Apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; OR  (3b) Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR  (3c) Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR  (3d) Utilize any combination of control actions (3a), (3b), and (3c) such that, in total, these actions apply to all inactive disturbed surface areas.

Table 2 (Continued)

<b>FUGITIVE DUST SOURCE CATEGORY</b>	<b>CONTROL ACTIONS</b>
<b>Unpaved Roads</b>	<p>(4a) Water all roads used for any vehicular traffic at least once per every two hours of active operations [3 times per normal 8 hour work day]; OR</p> <p>(4b) Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR</p> <p>(4c) Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.</p>
<b>Open storage piles</b>	<p>(5a) Apply chemical stabilizers; OR</p> <p>(5b) Apply water to at least 80 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; OR</p> <p>(5c) Install temporary coverings; OR</p> <p>(5d) Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile. This option may only be used at aggregate-related plants or at cement manufacturing facilities.</p>
<b>All Categories</b>	<p>(6a) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 2 may be used.</p>

**TABLE 3**  
**CONTINGENCY CONTROL MEASURES FOR LARGE OPERATIONS**

<b>FUGITIVE DUST SOURCE CATEGORY</b>	<b>CONTROL MEASURES</b>
<b>Earth-moving</b>	(1A) Cease all active operations; OR (2A) Apply water to soil not more than 15 minutes prior to moving such soil.
<b>Disturbed surface areas</b>	(0B) On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR (1B) Apply chemical stabilizers prior to wind event; OR (2B) Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; OR (3B) Take the actions specified in Table 2, Item (3c); OR (4B) Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas.
<b>Unpaved roads</b>	(1C) Apply chemical stabilizers prior to wind event; OR (2C) Apply water twice per hour during active operation; OR (3C) Stop all vehicular traffic.
<b>Open storage piles</b>	(1D) Apply water twice per hour; OR (2D) Install temporary coverings.
<b>Paved road track-out</b>	(1E) Cover all haul vehicles; OR (2E) Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.
<b>All Categories</b>	(1F) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 3 may be used.



**Table 4**  
**(Conservation Management Practices for Confined Animal Facilities)**

<b>SOURCE CATEGORY</b>	<b>CONSERVATION MANAGEMENT PRACTICES</b>
<b>Manure Handling</b>  <b>(Only applicable to Commercial Poultry Ranches)</b>	(1a) Cover manure prior to removing material off-site; AND (1b) Spread the manure before 11:00 AM and when wind conditions are less than 25 miles per hour; AND (1c) Utilize coning and drying manure management by removing manure at laying hen houses at least twice per year and maintain a base of no less than 6 inches of dry manure after clean out; or in lieu of complying with conservation management practice (1c), comply with conservation management practice (1d). (1d) Utilize frequent manure removal by removing the manure from laying hen houses at least every seven days and immediately thin bed dry the material.
<b>Feedstock Handling</b>	(2a) Utilize a sock or boot on the feed truck auger when filling feed storage bins.
<b>Disturbed Surfaces</b>	(3a) Maintain at least 70 percent vegetative cover on vacant portions of the facility; OR (3b) Utilize conservation tillage practices to manage the amount, orientation and distribution of crop and other plant residues on the soil surface year-round, while growing crops (if applicable) in narrow slots or tilled strips; OR (3c) Apply dust suppressants in sufficient concentrations and frequencies to maintain a stabilized surface.
<b>Unpaved Roads</b>	(4a) Restrict access to private unpaved roads either through signage or physical access restrictions and control vehicular speeds to no more than 15 miles per hour through worker notifications, signage, or any other necessary means; OR (4b) Cover frequently traveled unpaved roads with low silt content material (i.e., asphalt, concrete, recycled road base, or gravel to a minimum depth of four inches); OR (4c) Treat unpaved roads with water, mulch, chemical dust suppressants or other cover to maintain a stabilized surface.
<b>Equipment Parking Areas</b>	(5a) Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR (5b) Apply material with low silt content (i.e., asphalt, concrete, recycled road base, or gravel to a depth of four inches).

Facts and Findings and Statement of Overriding  
Considerations for the:

# 5355 East Airport Drive Project

State Clearinghouse No. 2022090006

**Lead Agency**

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Ontario, CA 91764

**CEQA Consultant**

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February 2024

# “EXHIBIT X”

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# **“EXHIBIT X”**

## **1.0 INTRODUCTION AND PURPOSE**

The Planning Commission of the City of Ontario (the “Planning Commission”) in approving the 5355 East Airport Drive Project (the “Project”) makes the Findings described below. The Findings are based upon the entire record before the Planning Commission, as described in Subsection 1.3 below, including the Environmental Impact Report (“EIR”) prepared for the Project with the City of Ontario (the “City”) acting as lead agency under the California Environmental Quality Act (“CEQA”).

Hereafter, the Notice of Preparation, Notice of Availability, Draft EIR (“DEIR”), Technical Studies, and Final EIR (containing responses to public comments on the DEIR and textual revisions to the Final EIR), will be referred to collectively herein as the “EIR” unless otherwise specified.

### **1.1 FINDINGS REQUIRED UNDER CEQA**

Public Resources Code Section 21002 provides that “public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects[.]” The statute also provides that the procedures required by CEQA are “intended to assist public agencies in systematically identifying both the significant effects of projects and the feasible alternatives or feasible mitigation measures which will avoid or lessen such significant effects.” Finally, Section 21002 indicates that “in the event [that] specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof.”

The mandate described in Public Resources Code Section 21002 is implemented, in part, through the requirement that agencies must adopt findings before approving projects for which EIRs are required. For each significant environmental effect identified in an EIR for a project, the approving agency must issue a written finding reaching one or more of three permissible conclusions. The first such finding is that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR. The second finding is that such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. The third finding is that specific economic, legal, social, technological, or other considerations make infeasible the mitigation measures or project alternatives identified in the EIR. (CEQA Guidelines, §15091.) Public Resources Code Section 21061.1 defines “feasible” to mean “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, legal, and technological factors.”

### **1.2 PROJECT SUMMARY**

#### **1.2.1 SITE LOCATION**

The 13.08-acre Project Site is located in southwestern San Bernardino County, within the City of Ontario. The Project Site is located at 5355 East Airport Drive (APN: 0238-052-29 and 0238-052-20). The Project Site is bordered by East Airport Drive to the south, industrial uses to the east and west, and railroad tracks to the north.

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## 1.2.2 PROJECT OVERVIEW

The Project Applicant seeks to demolish all existing on-site structures and redevelop the site as a warehouse distribution facility with approximately 270,337 square feet (s.f.) of building area and 54 south-facing loading dock doors. Of the total building square footage, the Project design allocates 255,337 s.f. for ground floor space and 15,000 s.f. for mezzanine space. Development of the Project site would require demolition of the existing buildings and structures, on-site landscaping, and on-site parking. The proposed building would be a one-story, 49-foot-tall speculative warehouse/ distribution facility with ancillary office space. The Project design includes surface parking with 251 parking spaces including 126 standard automobile parking stalls, 7 accessible parking stalls, 25 electric vehicle parking stalls, 93 additional standard stalls within the truck court, and 48 truck trailer parking spaces. The truck court/loading area would be enclosed and screened from public viewing areas by landscaping and minimum 14-foot-tall concrete tilt screening walls, with an 8-foot-tall black tube steel gate used at the access points. Vehicular access would be provided via 2 driveways connecting with East Airport Drive. A new sidewalk would be constructed along East Airport Drive to provide pedestrian access from the public street to the primary building entrances. Bike racks also would be provided near the building entrance and electrical room. Ornamental landscaping, lighting, walls, and utility infrastructure improvements/connections would be installed in compliance with the City's Municipal Code. Although the future building user is not presently known, the proposed building is assumed to operate 24 hours a day, 7 days a week.

## 1.2.3 PROJECT OBJECTIVES

The fundamental purpose and goal of the 5355 East Airport Drive Project is to accomplish the orderly redevelopment of the Project Site with a modern warehouse distribution facility. The Project would achieve this goal through the following objectives.

- A. To expand economic development and facilitate job creation in the City of Ontario by redeveloping the property with a new, in-demand industrial use adjacent to an already established industrial area.
- B. To attract employment-generating businesses to the City of Ontario to reduce the need for members of the local workforce to commute outside the area for employment.
- C. To develop industrial buildings with loading bays in close proximity to designated truck routes and the State highway system to avoid or shorten heavy truck-trip lengths on City and regional roads.
- D. To attract businesses that can expedite the delivery of goods to consumers and businesses in the City of Ontario and beyond.
- E. To develop a project that has architectural design and operational characteristics that complement other existing and planned buildings in the immediate vicinity of the Project Site and minimize conflicts with other nearby land uses.

## **“EXHIBIT X”**

F. To develop a property that has access to available infrastructure, including roads and utilities.

### **1.2.4 CITY OF ONTARIO ACTIONS COVERED BY THE EIR**

The following discretionary and administrative actions are required of the City to implement the Project. The EIR prepared for the Project covers all discretionary and administrative approvals which may be needed to construct or implement the Project, whether or not they are explicitly listed below.

- Development Plan (PDEV22-017)

### **1.2.5 APPROVALS FROM OTHER AGENCIES**

The California Public Resource Code (§ 21104) requires that all EIRs be reviewed by responsible and trustee agencies (see also CEQA Guidelines Section 15082 and Section 15086(a)). As defined by CEQA Guidelines Section 15381, “the term ‘Responsible Agency’ includes all public agencies other than the Lead Agency that have discretionary approval power over the project.” A “Trustee Agency” is defined in CEQA Guidelines Section 15386 as “a state agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California.”

The anticipated agencies expected to use the EIR are described below. However, the EIR can be used by any Trustee Agency or Responsible Agency, whether explicitly noted in the table below or not, as part of their decision-making processes in relation to the proposed Project.

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Agency	Action
<b>Responsible and Trustee Agencies</b>	
Santa Ana Regional Water Quality Control Board (“RWQCB”)	Santa Ana RWQCB is responsible for the protection of California’s water resources and water quality. The Santa Ana RWQCB is responsible for issuance of a National Pollutant Discharge Elimination System (“NPDES”) Permit to ensure that during and after Project construction, on-site water flows do not result in siltation, other erosional actions, or degradation of surface or subsurface water quality.
San Bernardino County Flood Control District (“SBCFCD”)	Responsible for the proposed drainage infrastructure that would be utilized by the Project.
Ontario Fire Department (“OFD”)	Approvals required for the installation of new fire hydrant locations and fire protection features for the proposed building.
South Coast Air Quality Management District (“South Coast AQMD”)	Responsible for the issuance of permits that allow for the construction and operation of the Project to ensure that during and post-Project construction and during Project operation, Project emissions do not result in significant impacts to air quality
Ontario Municipal Utilities Company (“OMUC”)	Approvals for the installation of proposed water improvements and connections.
Inland Empire Utilities Agency (“IEUA”)	Approval of proposed sewer improvements and connections.
Southern California Edison (“SCE”)	Approvals required for the installation of new SCE facilities/connections to service the Project
Southern California Gas Company (“SoCal Gas”)	Approvals required for the installation of new SoCal Gas facilities/connections to service the Project

### **1.3 ENVIRONMENTAL REVIEW AND PUBLIC PARTICIPATION**

The City conducted an extensive environmental review of the Project to ensure that the City’s decision makers and the public are fully informed about the potential significant environmental effects of the Project; to identify ways that environmental damage can be avoided or significantly reduced; and to prevent significant, avoidable damage to the environment by requiring changes in the Project using mitigation measures which have been found to be feasible. To do this, the City, acting as Lead Agency under CEQA, undertook the following:

- Circulated a Notice of Preparation (NOP) to the California Office of Planning and Research (the “State Clearinghouse”), Responsible Agencies, Trustee Agencies, other interested parties, and all property owners and occupants within a 600-foot radius of the Project site on September 1, 2022 for a 30-day review period beginning on September 1;
- Held a publicly noticed virtual EIR Scoping Meeting on September 13, 2022 to solicit comments from the public on the environmental issue areas that should be analyzed in the EIR;
- Sent a Notice of Completion (NOC) and copies of the Draft EIR to the California Office of Planning and Research, State Clearinghouse, on August 22, 2023, for a 45-day public review period from August 22, 2023 to October 5, 2023;



## **“EXHIBIT X”**

- Mailed a Notice of Availability (NOA) to all Responsible Agencies, Trustee Agencies, the Riverside County Clerk, other interested parties, and organizations, individuals who had previously requested the Notice, and all property owners and occupants within a 600-foot radius of the Project site to inform recipients that the Draft EIR was available for a 45-day review period beginning on August 22, 2023, and ending on October 5, 2023;
- Made an electronic copy of the Draft EIR available on the City’s website;
- Prepared responses to comments on the Draft EIR received during the 45-day comment period on the Draft EIR, which have been included in the Final EIR;
- Mailed notice of the Planning Commission hearing to all property owners and occupants within a 600-foot radius of the Project site.
- Sent individual responses to all public agencies, organizations, and individuals who submitted comments the Draft EIR on April 10, 2023; and
- Held a Planning Commission hearing on April 23, 2023.

All the documents identified above and all the documents which are required to be part of the record pursuant to Public Resources Code §21167.6(e) are on file with the City of Ontario Planning Department located at 303 East B Street in Ontario, CA 91764. Questions should be directed to Thomas Grahm, Senior Planner.

## **“EXHIBIT X”**

### **2.0 ENVIRONMENTAL IMPACTS AND FINDINGS**

The EIR was prepared by T&B Planning, Inc., an independent, professional consulting firm. The professional qualifications and reputation of the EIR Consultant, the supervision and direction of the EIR Consultant by City staff, the thorough and independent review of the DEIR and Final EIR, including comments and responses by City staff, and the review and careful consideration of the Final EIR by the Planning Commission, including comments and responses, all conclusively show that the Final EIR is the product of and reflects the independent judgment and analysis of the City as the Lead Agency.

Based on the NOP, Technical Appendix A to the Draft EIR, and the responses to the NOP, the EIR analyzed 12 potential areas where significant environmental impacts could result from the development of the Project. The 12 potential areas where significant environmental impacts could result from the development of the Project include: aesthetics, air quality, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, transportation, tribal cultural resources, and utilities and service systems.

## “EXHIBIT X”

### 3.0 ENVIRONMENTAL IMPACTS NOT REQUIRING MITIGATION

The Planning Commission hereby finds that the following potential environmental impacts associated with the implementation of the 5355 East Airport Drive Project are less-than-significant and therefore do not require the imposition of mitigation measures, or there are no impacts at all.

#### 3.1 AESTHETICS

##### 3.1.1 THRESHOLD A

**Impact Statement:** The Project would not have a substantial effect on a scenic vista.

**Findings**

Potential impacts of the Project related to Threshold a are discussed in detail in Section 4.1.5 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold a; therefore, no mitigation is required.

**Substantial Evidence**

A significant impact would occur if a project were to introduce incompatible scenic elements within a field of view containing a scenic vista or substantially block views of a scenic vista. Viewsheds refer to the visual qualities of the geographical area that is defined by the horizon, topography, and other natural features that give an area its visual boundary and context, or by artificial developments that have become prominent visual components of an area. The City of Ontario’s General Plan (Policy Plan) does not identify scenic vistas within the City; however, The Policy Plan (Policy CD1-5) requires all major north-south streets be designed and redeveloped to feature views of the San Gabriel Mountain. The Project Site is located at East Airport Drive, a minor east-west minor arterial street, as identified in the Functional Roadway Classification Plan (Figure M-2) of the Mobility Element within the Policy Plan. Additionally, the Project Site is bordered by industrial uses to the east and west. The San Gabriel Mountains are partially visible from the East Airport Drive segment that abuts the Project Site (while looking north); however, views of the Mountains are largely obstructed by existing onsite structures and improvements. The proposed warehouse building would not obscure views of the San Gabriel Mountains substantially more than views of the Mountains are already obscured under existing conditions, and views of the San Bernardino Mountains would continue to be available above the proposed building. Therefore, the visibility – or lack thereof – of the San Gabriel Mountains from public viewing areas along the Project Site frontage would not change substantially with implementation of the Project. Accordingly, given that the Project Site is not a scenic vista, is not located near a designated scenic resource, and unique, prominent, and scenic views would not be obscured by the Project, implementation of the Project would not have a substantial adverse effect on a scenic vista and less-than-significant impacts would occur. (DEIR, p. 4.1-8)

##### 3.1.2 THRESHOLD B

**Impact Statement:** The Project would not damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

## “EXHIBIT X”

### Findings

Potential impacts of the Project related to Threshold b are discussed in detail in Section 4.1.5 of the DEIR. This Planning Commission finds that the development of the proposed Project would result in no impacts with respect to Threshold b; therefore, no mitigation is required.

### Substantial Evidence

The City of Ontario is served by three freeways: I-10, I-15, and SR-60. I-10 and SR-60 traverse the northern and central portion of the City, respectively, in an east–west direction. I-15 traverses the northeastern portion of the City in a north–south direction. These segments of I-10, I-15, and SR-60 have not been officially designated as scenic highways by the California Department of Transportation. The nearest eligible State scenic highway is SR-142, approximately 12.7 miles to the southwest of the Project Site. In addition, there are no historic buildings or any scenic resources identified on or in the vicinity of the Project Site. Therefore, the Project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a state scenic highway. No impacts are anticipated. (DEIR, pp. 4.1-8)

### **3.1.3 THRESHOLD C**

**Impact Statement:** The Project would not, in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality.

### Findings

Potential impacts of the Project related to Threshold c are discussed in detail in Section 4.1.5 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold c; therefore, no mitigation is required.

### Substantial Evidence

According to CEQA Guidelines Section 15387, urban areas mean a central city or group of contiguous cities with a population of 50,000 or more, together with adjacent densely populated areas having a population density of at least 1,000 persons per square mile. According to the 2010 Census Urbanized Area Reference Map, the Project is located within an urbanized area. As such, the potential impacts of the Project under this threshold are assessed based on whether the Project would conflict with applicable zoning and other regulations governing scenic quality.

The Project Site is zoned Heavy Industrial (IH) and the Project is required to comply with the development standards established in Section 6.01.025, Industrial Zoning Districts, of the City’s Development Code. The intent and purpose of Section 6.01.025 are to ensure that development within the industrial zoning districts of the City will contribute toward an urban environment of stable, desirable character, which is harmonious with existing and future development, and is consistent with the goals and policies of the Policy Plan component of The Ontario Plan (TOP). Furthermore, these regulations are to ensure that the appearance of industrial buildings and uses are compatible with the visual character of the area in which they are located. Table 4.1-1, *Zoning District Development Standards Consistency Analysis*, addresses the Project’s consistency with applicable development

## “EXHIBIT X”

standards outlined in the City’s Development Code. As shown below, the Project would not conflict with the applicable development standards in the City’s Development Code established for the IH zone. Therefore, no adverse impacts are anticipated. (DEIR, pp. 4.1-9 – 4.1-12)

### 3.1.4 THRESHOLD D

**Impact Statement:** The Project would not create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area.

**Findings**

Potential impacts of the Project related to Threshold d are discussed in detail in Section 4.1.5 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in impacts related to Threshold d; therefore, no mitigation is required.

**Substantial Evidence**

The analysis of light and glare describes the existing light and glare environments in the Project area, identifies the light- and glare-sensitive land uses in the area, describes the light and glare sources under the Project, and qualitatively evaluates whether the Project would result in a substantial increase in nighttime lighting and daytime glare as seen from the area’s sensitive uses. The analysis of lighting impacts focuses on whether the Project would cause or substantially increase adverse night time lighting effects on light sensitive uses. Included in this analysis is consideration of the affected street frontages, the direction in which Project lighting would be directed, the potential for sunlight to reflect off the exterior surfaces of the proposed buildings, and the extent to which glare would interfere with the operation of motor vehicles or other activities.

Under existing conditions, the Project Site is surrounded by industrial uses and railroad tracks and street lights are located along East Airport Drive. New lighting would be introduced to the Site with the development of the Project. Pursuant to the requirements of the City’s Development Code, on-site lighting is required to be shielded, diffused or indirect, to avoid glare to pedestrians or motorists. In addition, lighting fixtures are required to be selected and located to confine the area of illumination to within the Project Site and minimize light spillage. Furthermore, Site lighting plans are subject to review by the City’s Planning Department and Police Department prior to issuance of building permits (pursuant to the City’s Building Security Ordinance).

With respect to glare, a majority of Project building materials would consist of tilt-up concrete panels which are low reflective. Although the building would incorporate some glass elements, the glass would result in minimal glare effects because proposed window glazing would be low reflective, would be set back from East Airport Drive at a distance and would be buffered from East Airport Drive by landscaping. Therefore, implementation of the Project would not result in a significant source of light or glare that would adversely affect daytime or nighttime views and impacts would be less than significant. (DEIR, p. 4.1-12.)

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## 3.2 AGRICULTURAL AND FORESTRY RESOURCES

### 3.2.1 THRESHOLD A

**Impact Statement:** The Project would not the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

#### Findings

Potential impacts of the Project related to Threshold a are discussed in detail in Section 5.4.1 of the DEIR. This Planning Commission finds that the development of the proposed Project would not result in significant impacts related to Threshold a; therefore, no mitigation is required.

#### Substantive Evidence

The Project Site is presently industrial and does not contain any agricultural uses. Further, the Site is identified as Urban and Built-up Land on the map prepared by the California Resources Agency, pursuant to the Farmland Mapping and Monitoring Program (DOC, 2018). The Project does not have the potential to convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use. As a result, no adverse environmental impacts are anticipated. (DEIR, p. 5-5-4)

### 3.2.2 THRESHOLD B

**Impact Statement:** The Project would not conflict with existing zoning for agricultural use, or a Williamson Act contract.

#### Findings

Potential impacts of the Project related to Threshold b are discussed in detail in Section 5.4.1 of the DEIR. This Planning Commission finds that the development of the proposed Project would not result in significant impacts related to Threshold b; therefore, no mitigation is required.

#### Substantive Evidence

The Project Site is not zoned for agricultural use. The Project Site is zoned Heavy Industrial. The Project’s implementation would not require a zone change and would not result in a loss of land zoned for agriculture. The Project is consistent with the development standards and allowed land uses of the proposed zone. Furthermore, there is no Williamson Act contract in effect on the subject Site. Therefore, no impacts to agricultural uses are anticipated, nor will there be any conflict with existing or Williamson Act contracts. (DEIR, p. 5-5-4)

### 3.2.3 THRESHOLD C

**Impact Statement:** The Project would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public

## “EXHIBIT X”

Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g).

### **Findings**

Potential impacts of the Project related to Threshold c are discussed in detail in Section 5.4.1 of the DEIR. This Planning Commission finds that the development of the proposed Project would not result in significant impacts related to Threshold c; therefore, no mitigation is required.

### **Substantive Evidence**

The Project is zoned Heavy Industrial and does not contain forest land. The Project is consistent with the development standards and allowed land uses of the Heavy Industrial zone. The City’s Zoning Map does not designate any parcels of land in the Project area for forest land, timberland, or timberland zoned Timberland Production. Therefore, no adverse impacts are anticipated. (DEIR, p. 5-5-4)

### **3.2.4 THRESHOLD D**

**Impact Statement:** The Project would not result in the loss of forest land or conversion of forest land to non-forest use.

### **Findings**

Potential impacts of the Project related to Threshold d are discussed in detail in Section 5.4.1 of the DEIR. This Planning Commission finds that the development of the proposed Project would not result in significant impacts related to Threshold d; therefore, no mitigation is required.

### **Substantive Evidence**

There is currently no land in the City of Ontario that qualifies as forest land as defined in Public Resources Code Section 12220(g). Neither the Policy Plan nor the City’s Zoning Code provide designations for forest land. Consequently, the Project would not result in the loss or conversion of forest land. (DEIR, p. 5-5-5)

### **3.2.5 THRESHOLD E**

**Impact Statement:** The Project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

### **Findings**

Potential impacts of the Project related to Threshold e are discussed in detail in Section 5.4.1 of the DEIR. This Planning Commission finds that the development of the proposed Project would not result in significant impacts related to Threshold e; therefore, no mitigation is required.

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### Substantive Evidence

The Project Site is currently zoned Heavy Industrial and is not designated as Farmland. The Project Site is currently developed with industrial uses and there are no agricultural uses occurring onsite. As a result, to the extent that the Project would result in changes to the existing environment those changes would not result in the loss of Farmland to non-agricultural use.

Additionally, there is currently no land in the City of Ontario that qualifies as forest land as defined in Public Resources Code Section 12220(g). Neither the Policy Plan nor the City’s Development Code provide designations for forest land. Consequently, to the extent that the Project would result in changes to the existing environment, those changes would not impact forest land. (DEIR, p. 5-5)

### **3.3** AIR QUALITY

#### **3.3.1** THRESHOLD A

**Impact Statement:** The Project would conflict with and/or obstruct implementation of the applicable air quality plan.

### Findings

Potential impacts of the Project related to Threshold a are discussed in detail in Section 4.2.4 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold a; therefore, no mitigation is required.

### Substantial Evidence

Consistency Criterion No. 1 refers to violations of the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS). CAAQS and NAAQS violations would occur if LSTs or regional significance thresholds were exceeded. As disclosed under the analysis for Thresholds “b” and “c” below, Project localized and regional construction and operational-source emissions would not exceed applicable South Coast Air Quality Management District (SCAQMD) regional significance thresholds and Localized significance thresholds (LST) thresholds. As such, the Project is determined to be consistent with the first criterion.

With regard to Consistency Criterion No. 2, the 2016 Air Quality Management Plan (AQMP) demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under federal law. Growth projections from local general plans adopted by cities in the Air District are provided to the Southern California Association of Governments (SCAG), which develops regional growth forecasts, which are then used to develop future air quality forecasts for the AQMP. Development consistent with the growth projections in City of Ontario Policy Plan is considered to be consistent with the AQMP.

Peak day emissions generated by construction activities are largely independent of land use assignments, but rather are a function of development scope and maximum area of disturbance. Irrespective of the site’s land use designation, development of the site to its maximum potential would



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likely occur, with disturbance of the entire site occurring during construction activities. As such, when considering that no emissions thresholds will be exceeded, a less than significant impact would result.

The Project is designated for Industrial uses within the Policy Plan. The Industrial designation allows for a variety of light industrial uses, including warehousing/distribution, assembly, light manufacturing, research and development, storage, repair facilities, and supporting retail and professional office uses. This designation also accommodates activities that could potentially generate impacts, such as noise, dust, and other nuisances. The Project is proposed to consist of a single 270,337 s.f. warehouse building. As previously stated, this analysis assumes up to 27,034 s.f. of high-cube cold storage use (10% of the total building s.f.) and 243,303 s.f. of warehouse use (90% of total building) which is consistent with the proposed Industrial designation and therefore, the Project does not propose or require amendment of the Site’s underlying land use designation.

Furthermore, as discussed below, the Project would not result in or cause exceedances of regional or localized air quality significance thresholds. Emissions generated by the Project are accurately represented in the AQMP emissions modeling, air pollution control strategies, and associated assumptions for emissions affecting the South Coast Air Basin (SCAB). On the basis of the preceding discussion, the Project would not exceed the assumptions in the AQMP based on the years of Project build-out phase. The Project is therefore determined to be consistent with the second criterion.

The Project would not result in or cause NAAQS or CAAQS violations and the Project is consistent with the land use and growth intensities reflected in the adopted City of Ontario Policy Plan. Furthermore, the Project would not exceed any applicable regional or local thresholds. As such, the Project is considered to be consistent with the AQMP and impacts would be less than significant. (DEIR, pp. 4.2-29 – 4.2-30)

### **3.3.2 THRESHOLD B**

**Impact Statement:** The Project would result in a cumulatively considerable net increase of criteria pollutants for which the Project region is non-attainment under an applicable federal or state ambient air quality standard.

#### **Findings**

Potential impacts of the Project related to Threshold a are discussed in detail in Section 4.2.4 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold b; therefore, no mitigation is required.

#### **Substantial Evidence**

Construction Emissions Impact Analysis: The Project’s peak construction-related emissions are summarized in Table 4.2-8, *Peak Construction Emissions Summary*, of the DEIR. Detailed air model outputs are presented in Appendix 4.1 of the Project’s Air Quality Impact Analysis (AQIA). As shown in Table 4.2-8, peak construction-related emissions of VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) would not exceed the applicable South Coast Air Quality Management District (SCAQMD) regional thresholds. Accordingly, the Project’s construction activities would not emit

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substantial concentrations for all pollutants and would not contribute to an existing or projected air quality violation on a cumulatively-considerable basis, and Project construction impacts would be less than significant.

Operational Emissions Impact Analysis: Peak emissions from Project operations are presented in Table 4.2-9, *Peak Operational Emissions Summary*, of the DEIR. Detailed air model outputs for the operational analysis are provided in Appendices 4.2 and 4.3 of the Project’s AQIA contained as *Technical Appendix B1* of the DEIR. As shown, Project operational emissions of VOCs, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> would not exceed SCAQMD regional criteria thresholds. Moreover, existing emissions from operation of the existing uses on the Project Site summarized in Table 4.2-4, *Existing Project Site Operation-Source Emissions*, were subtracted from the Project operational emissions to determine the new emissions from the proposed Project. As summarized in Table 4.2-9, Project operational emissions of VOCs, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> would not exceed SCAQMD regional criteria thresholds. Accordingly, the Project would not emit substantial concentrations of these pollutants during long-term operation and would not contribute to an existing or projected air quality violation. The Project’s long-term emissions of VOCs, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> would be less than significant. (DEIR, pp. 4.2-31 – 4.2-32)

### 3.3.3 THRESHOLD C

**Impact Statement:** The Project would not expose sensitive receptors to substantial pollutant concentrations.

**Findings**

Potential impacts of the Project related to Threshold c are discussed in detail in Section 4.2.4 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold c; therefore, no mitigation is required.

**Substantial Evidence**

During both construction and operation, the Project has the potential to expose nearby sensitive receptors to substantial pollutant concentrations. The following provides an analysis based on the applicable LSTs established by the State of California and SCAQMD, an analysis of the Project’s potential to result in or contribute to CO “hot spots,” and an analysis of the Project’s potential to result in cancer risks and non-cancer health hazards.

#### 1. *Localized Criteria Pollutant Analysis*

Construction Analysis: Table 4.2-10, *Localized Construction-Source Emissions Summary*, of the DEIR shows that localized emissions of NO<sub>x</sub>, CO, and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) during Project construction would not exceed applicable SCAQMD thresholds. Accordingly, Project construction would not expose any sensitive receptors in the vicinity of the Project Site to substantial criteria pollutant concentrations. Impacts would be less than significant.

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Operational Analysis: As shown in Table 4.2-11, *Localized Operational-Source Emissions Summary*, Project operations would not exceed the applicable SCAQMD thresholds for localized NO<sub>x</sub>, CO, and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) emissions. Accordingly, the Project would not expose any sensitive receptors in the vicinity of the Project Site to substantial pollutant concentrations. Impacts would be less than significant.

### **2. CO Hot Spot Impact Analysis**

An adverse CO concentration, known as a “hot spot”, would occur if an exceedance of the State one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur. It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last twenty years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SCAB is now designated as attainment.

A CO “hot spot” analysis was not performed for the Project because CO attainment in the SCAB was thoroughly analyzed as part of SCAQMD’s 2003 AQMP and the 1992 Federal Attainment for Carbon Monoxide Plan (1992 CO Plan). For context, the CO “hot spot” analysis performed for the 2003 AQMP recorded a CO concentration of 8.4 parts per million (8-hour) at the Long Beach Boulevard/Imperial Highway intersection in Los Angeles County; however, only a small portion of the recorded CO concentrations (0.7 parts per million) were attributable to traffic congestion at the intersection. The vast majority of the recorded CO concentrations at the Long Beach Boulevard/Imperial Highway intersection (7.7 parts per million) were attributable to ambient air concentrations. In comparison, the ambient 1-hr and 8-hr CO concentration within the Project study area is estimated to be 1.6 ppm and 1.3 ppm, respectively (data from I-10 Near Road monitoring station for 2020). Therefore, even if the traffic volumes for the Project were double or even triple of the traffic volumes generated at the Long Beach Blvd. and Imperial Hwy. intersection, coupled with the on-going improvements in ambient air quality, the Project would not be capable of resulting in a CO “hot spot” at any study area intersections. Furthermore, data from several air studies indicate that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by between 24,000 and 44,000 vehicles per hour in order to generate a significant CO impact; the Project would generate nowhere near this volume of traffic. Based on the relatively low traffic congestion levels, low existing ambient CO concentrations, and the lack of any unusual meteorological and/or topographical conditions in the Project Site vicinity, the Project is not expected to cause or contribute to a CO “hot spot”. (Urban Crossroads, 2022a, pp. 47-49) Impacts would be less than significant.

### **3. Toxic Air Contaminant Impact Analysis**

Construction Analysis: Construction activity would occur over the entire Project Site. Therefore, the sensitive receptor land use with the greatest potential exposure to Project construction-source DPM emissions is Location R6 which is located approximately 8,840 feet northwest of the Project Site at an existing residence located at 11210 Fourth Street on the opposite side of I-10 and SR-60 from the

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Project Site. Since there are no private outdoor living areas (backyards) facing the Project Site, receptor R6 is placed at the building façade facing the Project Site. At the Maximally Exposed Individual Resident (MEIR), the maximum incremental cancer risk attributable to Project construction-source DPM emissions is estimated at <0.01 in one million, which is far less than the SCAQMD’s significance threshold of 10 in one million. At this same location, non-cancer risks were estimated to be <0.01, which would not exceed the applicable threshold of 1.0. There are no sensitive receptors located in immediate, close proximity to the Project Site. As such, the Project will not cause a significant human health or cancer risk to adjacent land uses as a result of Project construction activity. All other receptors during construction activity would experience less risk than what is identified for Location R6.

Operational Analysis: The Project Site primarily surrounded by industrial uses. Therefore, the residential land use with the greatest potential exposure to Project operational-source DPM emissions is Location R6 which is located approximately 8,840 feet northwest of the Project Site at an existing residence located at 11210 Fourth Street on the opposite side of I-15 and I-10 from the Project Site. Since there are no private outdoor living areas (backyards) facing the Project Site, receptor R6 is placed at the building façade facing the Project Site. At the MEIR, the maximum incremental cancer risk attributable to Project operational-source DPM emissions is estimated at 0.01 in one million, which is far less than the SCAQMD’s significance threshold of 10 in one million. At this same location, non-cancer risks were estimated to be residential receptors located in immediate, close proximity to the Project Site. As such, the Project will not cause a significant human health or cancer risk to nearby residences.

The worker receptor land use with the greatest potential exposure to Project operational-source DPM emissions is Location R5, which represents the adjacent potential worker receptor approximately 58 feet east of the Project Site. At the Maximally Exposed Individual Worker (MEIW), the maximum incremental cancer risk impact is 0.25 in one million which is far less than the SCAQMD’s threshold of 10 in one million. Maximum non-cancer risks at this same location were estimated to be <0.01, which would not exceed the applicable significance threshold of 1.0. Because all other modeled worker receptors are located at a greater distance than the MEIW analyzed herein, and DPM dissipates with distance from the source, all other worker receptors in the vicinity of the Project would be exposed to less emissions and therefore less risk than the MEIW identified herein. As such, the Project will not cause a significant human health or cancer risk to adjacent workers.

Proximity to sources of toxics is critical to determining the impact. In traffic-related studies, the additional non-cancer health risk attributable to proximity was seen within 1,000 feet and was strongest within 300 feet. California freeway studies show about a 70-percent drop-off in particulate pollution levels at 500 feet. Based on California Air Resources Board (CARB) and SCAQMD emissions and modeling analyses, an 80-percent drop-off in pollutant concentrations is expected at approximately 1,000 feet from a distribution center. The 1,000-foot evaluation distance is supported by research-based findings concerning TAC emission dispersion rates from roadways and large sources showing that emissions diminish substantially between 500 and 1,000 feet from emission sources. A one-quarter mile radius, or 1,320 feet, is commonly utilized for identifying sensitive receptors, such as schools, that may be impacted by a proposed project. This radius is more robust than, and therefore provides a more health protective scenario for evaluation than the 1,000-foot impact radius identified above.

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There are no schools within one-quarter mile of the Project Site. The nearest school is Chaparral Elementary School, which is located approximately 11,200 feet southeast of the Project Site. Because there is no reasonable potential that TAC emissions would cause significant health impacts at distances of more than one-quarter mile from the air pollution source, the Project would result in less-than-significant impacts to any schools in the vicinity of the Project. (DEIR, pp. 4.2-33 – 4.2-36)

### 3.3.4 THRESHOLD D

**Impact Statement:** The Project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

#### Findings

Potential impacts of the Project related to Threshold d are discussed in detail in Section 4.2.4 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold d; therefore, no mitigation is required.

#### Substantial Evidence

During construction activities on the Project Site, odors could be produced by construction equipment exhaust or from the application of asphalt and/or architectural coatings; however, standard construction practices would minimize the odor emissions and their associated impacts. Furthermore, any odors emitted during construction would be temporary, short-term, and intermittent in nature, and would cease upon the completion of the respective phase of construction. In addition, construction activities on the Project Site would be required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance. Accordingly, the Project’s construction would not create objectionable odors affecting a substantial number of people and all impacts would be less than significant.

During long-term operation, the Project would operate as a warehouse distribution facility, which is not typically associated with the emission of objectionable odors. Temporary outdoor refuse storage could be a potential source of odor; however, Project-generated refuse is required to be stored in covered containers and removed at regular intervals in compliance with the City’s solid waste regulations, thereby precluding any significant odor impact. Furthermore, the occupant(s) of the proposed warehouse building would be required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance, during long-term operation. As such, long-term operation of the Project would not create objectionable odors affecting a substantial number of people and all impacts would be less than significant. (DEIR, pp. 4.2-36 – 4.2-37)

## 3.4 BIOLOGICAL RESOURCES

### 3.4.1 THRESHOLD A

**Impact Statement:** The Project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in

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local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

### **Findings**

Potential impacts of the Project related to Threshold a are discussed Section 5.4.2 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Thresholds a; therefore, no mitigation is required.

### **Substantial Evidence**

The Project Site is currently developed with a grain processing company and a corn storage and distribution facility. The Project Site is in an urbanized and industrialized area in the City of Ontario and vegetation onsite is limited to ornamental species. The Project Site is located within an area that has not been identified as containing species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations or by the California Department of Fish and Wildlife (CDFW) or the United States Fish and Wildlife Service (USFWS). As a part of the Project, existing vegetation within the developed portion of the Project Site would be removed and replaced with a variety of trees and ornamental vegetation. The relocation and/or replacement of on-site vegetation and trees would not have a substantial adverse effect on candidate, sensitive or special status species, as defined by the CDFW or the USFWS. Therefore, no adverse impacts are anticipated. (DEIR, p. 5-5-5)

### **3.4.2 THRESHOLD B**

**Impact Statement:** The Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

### **Findings**

Potential impacts of the Project related to Threshold b are discussed Section 5.4.2 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold b; therefore, no mitigation is required.

### **Substantial Evidence**

The Project Site is currently developed with industrial uses and is in a highly urbanized and industrialized area in the City. The Project Site does not contain any riparian habitat or other sensitive natural community identified by the CDFW or the USFWS (USFWS, 2020). Therefore, no adverse environmental impacts are anticipated. (DEIR, p. 5-5-6)

### **3.4.3 THRESHOLD C**

**Impact Statement:** The Project would not have a substantial adverse effect on federally protected wetlands [as defined by Section 404 of the Clean Water Act] (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

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### Findings

Potential impacts of the Project related to Threshold c are discussed Section 5.4.2 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold c; therefore, no mitigation is required.

### Substantial Evidence

There are no wetlands habitat present on site (USFWS, 2020). Therefore, Project implementation would have no impact on these resources. (DEIR, p. 5-5-6)

### 3.4.4 THRESHOLD D

**Impact Statement:** The Project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

### Findings

Potential impacts of the Project related to Threshold d are discussed Section 5.4.2 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold d; therefore, no mitigation is required.

### Substantial Evidence

No surface water bodies, streams or waterways occur on the Project Site. The Project Site does not provide nursery sites for wildlife, nor is it conducive to function as a corridor for migratory wildlife. There are a limited number of ornamental trees on site that would be removed and replaced with new trees and landscaping. The Migratory Bird Treaty Act of 1918 (MBTA) implements the United States’ commitment to four treaties with Canada, Japan, Mexico, and Russia for the protection of shared migratory bird resources. Nesting migratory birds are protected under the MBTA (United States Code, Title 16, Sections 703–712) and California Fish and Game Code Sections 3503 et seq. Compliance with federal MBTA and California Fish and Game Code would eliminate any potential impacts. The Project would not interfere with the movement of any native resident or migratory species or impede the use of native wildlife nursery sites. Therefore, no adverse environmental impacts are anticipated. (DEIR, p. 5-5-6)

### 3.4.5 THRESHOLD E

**Impact Statement:** The Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

### Findings

Potential impacts of the Project related to Threshold e are discussed Section 5.4.2 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold e; therefore, no mitigation is required.

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### **Substantial Evidence**

The City of Ontario does not have any ordinances protecting biological resources. Further, the Site does not contain any mature trees necessitating the need for preservation. As a result, no adverse environmental impacts are anticipated. (DEIR, p. 5-5-6)

#### **3.4.6 THRESHOLD F**

**Impact Statement:** The Project would not conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan.

### **Findings**

Potential impacts of the Project related to Thresholds f are discussed Section 5.4.2 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold f; therefore, no mitigation is required.

### **Substantial Evidence**

The Project Site is not part of an adopted HCP, NCCP or other approved habitat conservation plan (CDFW, 2019). As a result, no adverse environmental impacts are anticipated. (DEIR, p. 5-5-7)

## **3.5 CULTURAL RESOURCES**

### **3.5.1 THRESHOLD A**

**Impact Statement:** The Project would not cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5.

### **Findings**

Potential impacts of the Project related to Threshold a are discussed in detail in Section 4.3.4 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold a; therefore, no mitigation is required.

### **Substantial Evidence**

Under existing conditions, the Project Site is currently developed with a grain processing company and a corn storage and distribution facility. The eastern portion of the Project Site contains grain storage silos, grain mill area, and five buildings that are used for maintenance and repair, grain storage, and service shop. The western portion of the Project Site contains enclosed silo grain storage, with an office trailer. A vehicle wash-down area is also present on the northeastern portion of the Site, and three known septic systems are located beneath the Site. Implementation of the Project would require the demolition of all structures that are located on the Project Site under existing conditions.

Brian F. Smith & Associates, Inc. (BFSA) conducted a cultural resources record search of the Project Site and concluded that no recorded historical resources pursuant to CEQA Guidelines Section 15064.5



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are located within the Project boundaries or a one-half mile radius of the Project Site. The structures on the Project Site have a construction date of 1975 and after; and, the buildings and features within the Project Site were assessed and found not to be historically or architecturally significant under CEQA. Accordingly, implementation of the Project would not result in a substantial adverse change to any historical resource as defined by CEQA Guidelines Section 15064.5. No impact to a historical resource would occur. (DEIR, pp. 4.3-7 – 4.3-8)

### 3.5.2 THRESHOLD C

**Impact Statement:** The Project would not disturb any human remains, including those interred outside of formal cemeteries.

#### Findings

Potential impacts of the Project related to Threshold c are discussed in detail in Section 4.3.4 of the DEIR. This Planning Commission finds that the development of the proposed Project would not result in significant impacts related to Threshold c; therefore, no mitigation is required.

#### Substantial Evidence

The Project Site does not contain a cemetery and no known formal cemeteries are located within the immediate Site vicinity. Nevertheless, the remote potential exists that human remains may be unearthed during grading and excavation activities associated with Project construction.

If human remains are unearthed during Project construction, the construction contractor would be required by law to comply with California Health and Safety Code Section 7050.5 “Disturbance of Human Remains.” According to Section 7050.5(b) and (c), if human remains are discovered, the County Coroner must be contacted and if the Coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, the Coroner is required to contact the Native American Heritage Commission (NAHC) by telephone within 24 hours. Pursuant to California Public Resources Code Section 5097.98, whenever the NAHC receives notification of a discovery of Native American human remains from a county coroner, the NAHC is required to immediately notify those persons it believes to be most likely descended from the deceased Native American. The descendants may, with the permission of the owner of the land, or his or her authorized representative, inspect the site of the discovery of the Native American human remains and may recommend to the owner or the person responsible for the excavation work means for treatment or disposition, with appropriate dignity, of the human remains and any associated grave goods. The descendants shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the Project Site. According to Public Resources Code Section 5097.94(k), the NAHC is authorized to mediate disputes arising between landowners and known descendants relating to the treatment and disposition of Native American human burials, skeletal remains, and items associated with Native American burials. With mandatory compliance to California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98, any potential impacts to human remains, including human remains of Native American ancestry, that may result from development of the Project would be less than significant. (DEIR, pp. 4.3-8 – 4.3-9)

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### 3.6 ENERGY

#### 3.6.1 THRESHOLD A

**Impact Statement:** The Project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

#### Findings

Potential impacts of the Project related to Threshold a are discussed in detail in Section 4.4.4 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold a; therefore, no mitigation is required.

#### Substantial Evidence

##### 1. *Construction*

The Project’s construction process would consume electrical energy and diesel fuel. Project-related construction would represent a “single-event” energy demand and would not require on-going or permanent commitment of diesel fuel resources. Project construction activities are estimated to consume approximately 113,853 kWh of electricity, 67,491 gallons of diesel fuel from operation of construction equipment, 15,066 gallons of fuel from construction worker trips, and 11,965 gallons of fuel related to construction vendor trips (Urban Crossroads, 2022c, p. 30-38). Detailed calculations for all components of the Project’s construction energy use are provided in subsection 5.3 of the Project’s energy analysis (refer to *Technical Appendix D* of Draft EIR). Construction equipment use of fuel would not be atypical for the type of construction proposed because there are no aspects of the Project’s proposed construction process that are unusual or energy-intensive, and Project construction equipment would conform to the applicable CARB emissions standards, acting to promote equipment fuel efficiencies. (Urban Crossroads, 2022c, p. 41) CCR Title 13, Title 13, Motor Vehicles, Section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Best Available Control Measures (BACMs) inform construction equipment operators of this requirement. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints. (Urban Crossroads, 2022c, p. 41) As supported by the preceding discussion, the Project’s construction energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

##### 2. *Operation*

Energy consumption in support of or related to Project operations would include transportation fuel demands (fuel consumed by passenger car and truck vehicles accessing the Project Site), fuel demands from operational equipment, and facilities energy demands (energy consumed by building operations, site maintenance activities, and on-site cargo handling equipment). The Project energy demand is calculated to be 179,406 gallons of fuel, 5,337,545 kBtu of natural gas per year, and 1,774,048 kWh of electricity per year. The energy consumption of existing uses on the Project Site (refer to Subsection 4.4.1) were subtracted from the Project’s gross energy totals to determine the new, net energy demands

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from the proposed Project. The net Project energy demand is calculated to be 45,152 gallons of fuel, 4,543,279 kBtu of natural gas per year, and 746,675 kWh of electricity per year. Project on-site cargo handling equipment would consume an estimated 4,642 gallons of natural gas per year (Urban Crossroads, 2022c, pp. 38-40). Refer to subsection 5.4 of the Project’s energy analysis (see *Technical Appendix D* of the Draft EIR) for detailed calculations of all components of the Project’s operational energy use.

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands. The Project would implement sidewalks, facilitating and encouraging pedestrian access. Facilitating pedestrian and bicycle access would reduce VMT and associated energy consumption. In compliance with the California Green Building Standards Code and City requirements, the Project would promote the use of bicycles as an alternative mean of transportation by providing short-term and/or long-term bicycle parking accommodations. (Urban Crossroads, 2022c, p. 42)

Project on-site equipment would conform to the applicable CARB emissions standards, acting to promote equipment fuel efficiencies. The Project proposes a conventional warehouse use reflecting contemporary energy efficient/energy conserving designs and operational programs. The Project does not propose uses that are inherently energy intensive and the energy demands in total would be comparable to other industrial uses of similar scale and configuration. Lastly, the Project will comply with the applicable California Green Building Standard Code Title 24 standards. (Urban Crossroads, 2022c, p. 43) As supported by the preceding discussion, the Project’s operational energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary. (DEIR, pp. 4.4-5 – 4.4-6)

### 3.6.2 THRESHOLD B

**Impact Statement:** The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

#### **Findings**

Potential impacts of the Project related to Threshold b are discussed in detail in Section 4.4.4 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold b; therefore, no mitigation is required.

#### **Substantial Evidence**

The Project was analyzed for consistency with the Intermodal Surface Transportation Efficiency Act of 1991, the Transportation Equity Act for the 21st Century, Integrated Energy Policy Report, the State of California Energy Plan, California Code Title 24, Part 6, Energy Efficiency Standards, California Code Title 24, Part 11, CALGreen, Pavley Fuel Efficiency Standards, Renewable Portfolio Standard, Senate Bill 350, and the City of Ontario Community Climate Action Plan. The Project would not

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conflict with any of the preceding state and local plans. As such impacts would be less than significant. (DEIR, pp. 4.4-6 – 4.4-8)

### **3.7 GEOLOGY AND SOILS**

#### **3.7.1 THRESHOLD A**

**Impact Statement:** The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: strong seismic ground shaking; seismic-related ground failure, including liquefaction; or landslides.

##### **Findings**

Potential impacts of the Project related to Threshold a are discussed Section 4.5.4 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold a; therefore, no mitigation is required.

##### **Substantial Evidence**

#### *1. Rupture of a Known Earthquake Fault*

There are no known active or potentially active faults on or trending toward the Project Site. Research of available maps indicates that the Project Site is not located within an Alquist-Priolo Earthquake Fault Zone. No evidence of faulting was identified during the geotechnical investigation. (SoCal Geotechnical, 2022a, p. 10) Because there are no known faults located on or trending towards the Project Site, there is no potential for the Project to directly or indirectly expose people or structures to substantial adverse effects related to ground rupture. Impacts would be less than significant.

#### *2. Strong Seismic Ground Shaking*

The Project Site is located in a seismically active area of southern California and is expected to experience moderate to severe ground shaking during the lifetime of the Project. The risk is not substantially different than the risk to other properties throughout the southern California area. As a mandatory condition of Project approval, the Project Applicant would be required to construct the proposed building in accordance with the California Building Standards Commission (CBSC) and the Ontario Development Code. The CBSC and Ontario Development Code, which have been specifically tailored for California earthquake conditions, provide building standards that must be met to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings and structures. In addition, the CBSC (Chapter 18) require development project sites to be evaluated in preliminary soil reports to identify site-specific geologic and seismic conditions and provide site-specific recommendations to preclude adverse effects involving unstable soils and strong seismic ground-shaking, including, but not limited to, recommendations related to ground stabilization, selection of appropriate foundation type and depths, and selection of appropriate structural systems. The Project Applicant retained a professional geotechnical firm, Southern California Geotechnical, to prepare a geotechnical investigation for the Project Site, which is included as *Technical Appendix E1* to the DEIR. The geotechnical investigation included recommendations for design, construction, and grading

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considerations based on the site-specific geological conditions and the Project’s specific design. The recommendations included seismic design considerations, geotechnical design considerations, site grading, construction, foundation design and construction, floor slab design and construction, retaining wall design and construction, and pavement design parameters. This geotechnical investigation complies with the requirements of Chapter 18 of the CBSC. With mandatory compliance with these standards and site-specific design and construction measures, implementation of the Project would not directly or indirectly expose people or structures to substantial adverse effects, including loss, injury or death, involving seismic ground shaking. Impacts would be less than significant.

### 3. *Seismic-Related Ground Failure*

The Project would be required to be designed and constructed in accordance with applicable seismic safety guidelines, including the standard requirements of the CBSC, as noted above. Furthermore, the Project would be required (via conditions of approval) to comply with the grading and construction recommendations contained within the geotechnical investigation for the Project Site to further reduce the risk of seismic-related ground failure due to liquefaction. Therefore, implementation of the Project would not directly or indirectly expose people or structures to substantial hazards associated with seismic-related ground failure and/or liquefaction hazards. Impacts would be less than significant.

### 4. *Landslides*

The Project Site is relatively flat, as is the immediately surrounding area. The Project Site slopes gently to the south-southeast at a gradient of less than 1 percent. There is no evidence of historical landslides or rockfalls on the Project Site (CGS, 2021). The Project includes retaining walls, which would be constructed in accordance with the site-specific recommendations contained within the geotechnical report to ensure their structural soundness. The City would condition the Project to comply with the site-specific design and engineering recommendations contained within the geotechnical investigation to ensure these measures are implemented. Mandatory compliance with the recommendations contained within the Project Site’s geotechnical report would ensure that the Project is engineered and constructed to maximize stability and preclude safety hazards to on-site and abutting off-site areas. Accordingly, the Project would not be exposed to substantial landslide risks, and implementation of the Project would not pose a substantial direct or indirect landslide risk to surrounding properties. Impacts would be less than significant. (DEIR, pp. 4.5-8 – 4.5-9)

### **3.7.2 THRESHOLD B**

**Impact Statement:** The Project would not result in substantial soil erosion or the loss of topsoil.

#### **Findings**

Potential impacts of the Project related to Threshold b are discussed Section 4.5.4 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold b; therefore, no mitigation is required.

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### ❑ Substantial Evidence

#### 1. *Construction*

Development of the Project would result in the demolition of all structures on-site, and grading and construction activities would occur that would expose and disturb soils that are currently covered by impervious surfaces. Disturbed soils would be subject to potential erosion during rainfall events or high winds due to the removal of stabilizing vegetation and building materials (e.g., existing concrete foundations) and exposure of these erodible materials to wind and water.

Pursuant to the requirements of the State Water Resources Control Board, the Project Applicant would be required to obtain coverage under the State’s General Construction Storm Water Permit for construction activities (National Pollutant Discharge Elimination System [NPDES] permit). The NPDES permit is required for all development projects that include construction activities, such as clearing, grading, and/or excavation, that disturb at least 1 acre of total land area. In addition, the Project would be required to comply with the Santa Ana Regional Water Quality Control Board’s (RWQCB’s) Santa Ana River Basin Water Quality Control Program. Compliance with the NPDES permit and the Santa Ana River Basin Water Quality Control Program involves the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) for construction-related activities. The SWPPP will specify the Best Management Practices (BMPs) that the Project Applicant will be required to implement during construction activities to ensure that waterborne pollution – including erosion/sedimentation – is prevented, minimized, and/or otherwise appropriately treated prior to surface runoff being discharged from the subject property. Examples of Best Management Practices (BMPs) that may be utilized during construction include, but are not limited to, sandbag barriers, geotextiles, storm drain inlet protection, sediment traps, rip rap soil stabilizers, and hydro-seeding. Mandatory compliance with the SWPPP would ensure that the Project’s implementation does not violate any water quality standards or waste discharge requirements during construction activities. Therefore, water quality impacts associated with construction activities would be less than significant and no mitigation measures would be required..

#### 2. *Operation*

Upon Project build-out, the Project Site would be covered by buildings, landscaping, and impervious surfaces. Stormwater runoff from the Project Site would be captured, treated to reduce waterborne pollutants (including sediment), and conveyed off-site via an on-site storm drain system. The Project would be required to implement erosion control measures pursuant to Ontario Municipal Code Title 6, Chapter 12. During operation of the Project, the Project Applicant would be required to prepare and implement a Water Quality Management Plan (WQMP) to demonstrate compliance with the City’s NPDES municipal stormwater permit, and to minimize the release of potential waterborne pollutants, including pollutants of concern for downstream receiving waters. The WQMP is a site specific post-construction water quality management program designed to address the potential release of pollutants of concern for downstream receiving waters and other water pollutants through the use of BMPs. Implementation of the WQMP ensures on-going, long-term protection of the watershed basin. The Preliminary WQMP for the Project was prepared by Westland and is included as *Technical Appendix H2* to the DEIR. Because the Project Applicant would be required to utilize erosion and sediment control measures to preclude substantial, long-term soil erosion and loss of topsoil, Project operation

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would result in less-than-significant impacts related to soil erosion and sedimentation. (DEIR, pp. 4.5-10 – 4.5-11)

### 3.7.3 THRESHOLD C

**Impact Statement:** The Project would not be located on a geologic unit or soil that is unstable, or that would become unstable because of the Project, and potentially result in on-site or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse.

#### **Findings**

Potential impacts of the Project related to Threshold c are discussed Section 4.5.4 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold c; therefore, no mitigation is required.

#### **Substantial Evidence**

The Project Site is relatively flat, as is the immediately surrounding area. The Project Site slopes gently to the south-southeast at a gradient of less than 1 percent. There is no evidence of historical landslides or rockfalls on the Project Site (CGS, 2021). As noted in the response to Threshold “a”, the Project includes retaining walls and manufactured slopes that would be engineered for structural soundness and constructed in accordance with the site-specific recommendations contained within the geotechnical investigation for the Project. Accordingly, the Project would result in less than significant impacts associated with landslide hazards.

Southern California Geotechnical indicated that there is a low potential for subsidence to affect the Project Site. Removal and recompaction of the near-surface existing soils is estimated to result in an average shrinkage of 5 to 15 percent. Minor ground subsidence is expected to occur in the soils below the zone of removal, due to settlement and machinery working. The subsidence is estimated to be 0.15 feet. The City will condition the Project to comply with the Site-specific ground preparation and construction recommendations contained in the Project’s geotechnical report. Based on the foregoing, potential impacts related to soil shrinkage/subsidence and collapse would be less than significant.

Southern California Geotechnical indicated that there is a low potential for lateral spreading to affect the Project Site. Lateral spreading is primarily associated with liquefaction hazards. As noted above under the discussion of Threshold “a,” the Project Site is not susceptible to liquefaction. Accordingly, impacts associated with lateral spreading would be less than significant. (DEIR, p. 4.5-11)

### 3.7.4 THRESHOLD D

**Impact Statement:** The Project would not be located on expansive soil, as defined in the Uniform Building Code, creating substantial risks to life or property.

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### Findings

Potential impacts of the Project related to Threshold d are discussed Section 4.5.4 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold d; therefore, no mitigation is required.

### Substantial Evidence

The near-surface soils consist of sands and silty sands with no appreciable clay content. These materials have been visually classified as non-expansive. Therefore, no design considerations related to expansive soils are considered warranted for this Site. (SoCal Geotechnical, 2022a, p. 13) Accordingly, the Project Site does not contain expansive soils and as such, would not create substantial direct or indirect risks to life or property associated with the presence of expansive soils. No impacts would occur. (DEIR, p. 4.5-11)

### **3.7.5 THRESHOLD E**

**Impact Statement:** The Project would not propose the use of septic tanks.

### Findings

Potential impacts of the Project related to Threshold e are discussed Section 4.5.4 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold e; therefore, no mitigation is required.

### Substantial Evidence

The Project would connect to an existing sewer line installed beneath Airport Drive. The existing onsite septic systems would be removed and there would be no continued use of Project-site related septic systems upon implementation of the proposed Project. The Project would not utilize septic tanks or alternative wastewater systems. No impact related to the use of alternative waste water systems would thus occur. (DEIR, p. 4.5-12)

## **3.8 GREENHOUSE GAS EMISSIONS**

### **3.8.1 THRESHOLD A**

**Impact Statement:** The Project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

### Findings

Potential impacts of the Project related to Threshold a are discussed in detail in Section 4.6.4 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold a; therefore, no mitigation is required.



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### **Substantial Evidence**

As previously stated, Supplemental Environmental Impact Report (SEIR) prepared for The Ontario Plan 2050 identifies that the measures included in the 2022 update to the Community Climate Action Plan (CCAP) are not substantially different than that of the 2014 CCAP and therefore there is no change in the environmental impacts associated with the CCAP. As such, and consistent with the 2014 CCAP, this analysis relies on the annual screening threshold of 3,000 MTCO<sub>2</sub>e/yr to define small projects that are considered less than significant and do not require further GHG emissions calculations or analysis. Projects that do not exceed an annual 3,000 MTCO<sub>2</sub>e/yr are therefore considered less than significant and would not require further analysis or mitigation. (Urban Crossroads, 2022d, p. 51)

The annual GHG emissions associated with the operation of the proposed Project are summarized in Table 4.6-3, *Project GHG Emissions*, of the DEIR. As shown, construction and operation of the Project would generate a total of approximately 4,236.54 MTCO<sub>2</sub>e/yr. GHG emissions from existing land uses on the Project Site were subtracted from the Project’s gross emissions to determine the net (or new) emissions attributed to the Project. Construction and operation of the Project less emissions from the existing onsite uses would result a net total of new GHG emissions of approximately 2,590.77 MTCO<sub>2</sub>e/yr, which would fall below the significance threshold of 3,000 MTCO<sub>2</sub>e/yr; therefore, Project-related GHG emissions are considered less than significant. (DEIR, pp. 4.6-22 – 4.5-23)

### **3.8.2 THRESHOLD B**

**Impact Statement:** The Project would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

### **Findings**

Potential impacts of the Project related to Threshold b are discussed in detail in Section 4.6.4 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold b; therefore, no mitigation is required.

### **Substantial Evidence**

The Project’s consistency with the City’s CCAP, Assembly Bill (AB) 32 and Senate Bill (SB) 32 are discussed below. It should be noted that the Project’s consistency with the SB 32 (2017 Scoping Plan) also satisfies consistency with AB 32 since the 2017 Scoping Plan is based on the overall targets established by AB 32. Consistency with the 2008 Scoping Plan is not necessary, since the target year for the 2008 Scoping Plan was 2020, and the Project’s buildout year is 2024. As such the 2008 Scoping Plan does not apply and consistency with the 2017 Scoping Plan is relevant. (Urban Crossroads, 2022d, p. 59)

Since the Project does not exceed the established annual screening threshold of 3,000 MTCO<sub>2</sub>e/yr, the Project is considered less than significant, does not require further GHG emissions calculations or analysis, and is presumed to be consistent with the City’s CCAP. (Urban Crossroads, 2022d, p. 59)

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In April 2015, Governor Brown signed EO B-30-15, which advocated for a statewide GHG-reduction target of 40 percent below year 1990 levels by 2030 and 80 percent below 1990 levels by 2050. In September 2016, Governor Brown signed the SB 32. SB 32 formally established a statewide goal to reduce GHG emissions to 40 percent below year 1990 levels by 2030. To date, no statutes or regulations have been adopted to translate the year 2050 GHG reduction goal into comparable, scientifically-based statewide emission reduction targets.

CARB prepared the 2017 Scoping Plan Update to identify the measures that would achieve the emissions reduction goals of SB 32 (and, thus, also would achieve the emissions reductions goals of AB 32). Research conducted by the Lawrence Berkeley National Laboratory confirmed that California, under its existing GHG reduction policy framework (i.e., Scoping Plan Update), is on track to meet the year 2030 reduction targets established by the SB 32 (Urban Crossroads, 2022d, p. 37). As explained in point-by-point detail in Table 4-7 of the Project’s GHG Analysis (Refer to *Technical Appendix F* of the DEIR), the Project would not conflict with applicable measures of the 2017 Scoping Plan Update and, therefore, would not interfere with the State’s ability to achieve the year GHG-reduction targets established by AB 32 and SB32. Further, recent studies show that the State’s existing and proposed regulatory framework will allow the State to reduce its GHG emissions level to 40% below 1990 levels by 2030 (Urban Crossroads, 2022d, p. 59-64)

In relation to CARB’s 2022 Scoping Plan, the Project would not impede the State’s progress towards carbon neutrality by 2045 under the 2022 Scoping Plan. The Project would be required to comply with applicable current and future regulatory requirements promulgated through the 2022 Scoping Plan. Some of the current transportation sector policies that the Project would comply with (through vehicle manufacturer compliance) include: Advanced Clean Cars II, Advanced Clean Trucks, Advanced Clean Fleets, Zero Emission Forklifts, the Off-Road Zero-Emission Targeted Manufacturer rule, Clean Off Road Fleet Recognition Program, In-use Off-Road Diesel-Fueled Fleets Regulation, Off-Road Zero Emission Targeted Manufacturer rule, Clean Off-Road Fleet Recognition Program, Amendments to the In-use Off-Road Diesel-Fueled Fleets Regulation, carbon pricing through the Cap-and-Trade Program, and the Low Carbon Fuel Standard. Further, the Project would be required to comply with applicable elements outlined in the City’s CAP. As such, the Project would not be inconsistent with the 2022 Scoping Plan.

As described on the preceding pages, implementation of the Project would not conflict with the State’s ability to achieve the State-wide GHG reduction mandates and would be consistent with applicable policies and plans related to GHG emissions reductions. Implementation of the Project would not actively interfere with any future federally-, State-, or locally-mandated retrofit obligations (such as requirements to use new technologies such as diesel particulate filters, emissions upgrades to a higher tier equipment, etc.) enacted or promulgated to legally require development projects to assist in meeting State-adopted GHG emissions reduction targets, including those established under Executive Order (EO) S-3-05, EO B-30-15, or SB 32. Therefore, the Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs and would result in a less-than significant impact. (DEIR, pp. 4.6-23 – 4.5-24)

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### 3.9 HAZARDS AND HAZARDOUS MATERIALS

#### 3.9.1 THRESHOLD C

**Impact Statement:** The Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

**Findings**

Potential impacts of the Project related to Threshold c are discussed in detail in Section 4.7.5 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in impacts related to Threshold c; therefore, no mitigation is required.

**Substantial Evidence**

The Project Site is not within one-quarter mile of an existing or proposed school. The nearest school to the Project Site is the Chaparral Elementary School, which is located approximately 2.23 miles southeast of the Project Site. Accordingly, the Project has no potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, and/or wastes within one-quarter mile of an existing or proposed school. No impact would occur. (DEIR, p. 4.7-16)

#### 3.9.2 THRESHOLD D

**Impact Statement:** The Project site would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not create a significant hazard to the public or the environment.

**Findings**

Potential impacts of the Project related to Threshold d are discussed in detail in Section 4.7.5 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in impacts related to Threshold d; therefore, no mitigation is required.

**Substantial Evidence**

Government Code Section 65962.5 requires State Department of Health Services (DTSC), State Water Resources Control Board, and the State Department of Resources Recycling and Recovery to maintain a list of hazardous materials sites that fall within specific, defined categories. As discussed in Subsection 4.7.1A.2, current and previous uses of the Project Site are included in several listings. No violations indicating a spill or a release were identified in the listings. Therefore, these listings are not considered to represent a significant environmental concern. Additionally, Farallon searched the GeoTracker database and the California Department of Toxic Substances Control online EnviroStor database (EnviroStor database) for records related to the Site, but found no listings.

Two facilities (Costco Distribution Center to the south and Praxair, Inc. to the east) in the Project’s vicinity were also recorded in several listings. However, based on the status, depth to groundwater, and location of the property at a cross-gradient direction from the Project Site, no evidence was found

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to indicate that these properties represent a recognized environmental condition in connection with the Project Site. (Farallon, 2022, pp. 6-2 to 6-3) Therefore, impacts would be less than significant. (DEIR, p. 4.7-16)

### 3.9.3 THRESHOLD E

**Impact Statement:** The Project site is not within two miles of an airport and the Project site is not identified as within an airport influence area.

#### Findings

Potential impacts of the Project related to Threshold e are discussed in detail in Section 4.7.5 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in impacts related to Threshold e; therefore, no mitigation is required.

#### Substantial Evidence

The Project Site is located approximately 2.7 miles east of the Ontario International Airport (ONT). According to the Ontario International Airport (ONT) Land Use Compatibility Plan (ALUCP), the Project Site is located within the ONT Airport Influence Area (Ontario, 2011). Moreover, the Project Site is located outside the 65 community noise equivalent level (CNEL) noise impact zone and is subject to the Noise Criteria established on Table 2-3 in the ONT ALUCP. According to Table 2-3 of the ONT ALUCP, industrial land uses located outside the 65 dBA CNEL noise level contours of ONT, such as the Project, are considered normally compatible land use. For normally compatible land use, either the activities associated with the land use are inherently noisy or standard construction methods will sufficiently attenuate exterior noise to an acceptable indoor CNEL. Therefore, the Project would not result in excessive noise for people residing or working in the Project area.

Furthermore, the Project Site is not located in an ONT safety hazard zone (Ontario, 2011). Accordingly, implementation of the Project would not result in a safety hazard for people living or working on the Project area and impacts would be less than significant. (DEIR, p. 4.7-16 – 4.7-17)

### 3.9.4 THRESHOLD F

**Impact Statement:** The Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

#### Findings

Potential impacts of the Project related to Threshold f are discussed in detail in Section 4.7.5 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in impacts related to Threshold f; therefore, no mitigation is required.

#### Substantial Evidence

The City's Safety Element includes policies and procedures to be administered in the event of a disaster. The Ontario Plan seeks interdepartmental and interjurisdictional coordination and collaboration to be

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prepared for, respond to and recover from everyday and disaster emergencies. The City manages disaster preparedness through the Technical Services Bureau of the Ontario Fire Department. This bureau is responsible for the preparation of the community for disasters and the organization of recovery efforts. The City updated a Local Hazard Mitigation Plan prepared by the Office of Emergency Services of the Ontario Fire Department in 2018. Because the Project Site has been historically used for industrial uses, it is not identified in any of these plans as being an evacuation area.

Furthermore, construction of the Project would be generally confined to the Project Site and would not physically impair access to the Site or the Project area. During both construction and long-term operation, the Project would be required to maintain adequate emergency access for emergency vehicles as required by the City and the Ontario Fire Department. In addition, the Project will comply with the requirements of the Ontario Fire Department and all City requirements for fire and other emergency access. Because the Project is required to comply with all applicable City codes, impacts would be less than significant level. (DEIR, p. 4.7-17)

### 3.9.5 THRESHOLD G

**Impact Statement:** The Project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

#### Findings

Potential impacts of the Project related to Threshold g are discussed in detail in Section 4.7.5 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in impacts related to Threshold g; therefore, no mitigation is required.

#### Substantial Evidence

The Project Site is not located adjacent to wildlands nor is the Project Site located within or adjacent to a very high fire hazard severity zone (CAL FIRE, 2008). Accordingly, the Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. No impact would occur. (DEIR, p. 4.7-17)

### 3.10 HYDROLOGY AND WATER QUALITY

#### 3.10.1 THRESHOLD A

**Impact Statement:** The Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.

#### Findings

Potential impacts of the Project related to Threshold a are discussed in detail in Section 4.8.4 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold a; therefore, no mitigation is required.

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### ☐ Substantial Evidence

The Project Applicant would be required to comply with Section 402 of the Clean Water Act, which authorizes the NPDES permit program that covers point sources of pollution discharging to a water body. The NPDES program would require the Project Applicant and/or construction contractor to prepare a Stormwater Pollution Prevention Plan (SWPPP) and obtain authorization to discharge stormwater under a NPDES construction stormwater permit because the Project would result in construction on a site that is larger than 1 acre. The Project Applicant also would be required to comply with the California Porter-Cologne Water Quality Control Act (Section 13000 et seq., of the California Water Code), which requires that comprehensive water quality control plans be developed for all waters within the State of California. The Project Site is located within the jurisdiction of the Santa Ana RWQCB.

#### 1. *Construction-Related Water Quality Impacts*

Construction of the Project would include demolition, site preparation and grading, building construction, paving, utility installation, and architectural coating and landscaping, which have the potential to generate silt, debris, organic waste, chemicals, paints, and other solvents; should these materials come into contact with water that reaches the groundwater table or flows off-site, the potential exists for the Project’s construction activities to adversely affect water quality. As such, short term water quality impacts have the potential to occur during Project construction in the absence of any protective or avoidance measures.

Pursuant to the requirements of the Santa Ana RWQCB and Ontario Municipal Code Title 6, Chapter 6, Article IV and V, the Project Applicant would be required to obtain coverage under the State’s General Construction Storm Water Permit for construction activities (NPDES permit). The NPDES permit is required for all development projects that include construction activities, such as clearing, grading, and/or excavation, that disturb at least one (1) acre of total land area. In addition, the Project Applicant would be required to comply with the Santa Ana RWQCB’s *Santa Ana River Basin Water Quality Control Program*. Compliance with the NPDES permit and the *Santa Ana River Basin Water Quality Control Program* involves the preparation and implementation of a SWPPP for construction related activities. The SWPPP will specify the Best Management Practices (BMPs) that the Project’s construction contractors would be required to implement during construction activities to ensure that potential pollutants of concern are prevented, minimized, and/or otherwise appropriately treated prior to being discharged from the subject property. Examples of BMPs that may be utilized during construction include, but are not limited to, sandbag barriers, geotextiles, storm drain inlet protection, sediment traps, rip rap soil stabilizers, and hydroseeding. Pursuant to Ontario Municipal Code Title 6, Chapter 12, the Project Applicant also would be required to implement erosion control measures to prevent soil erosion by wind. Mandatory compliance with the SWPPP and erosion control measures would ensure that the Project construction does not violate any water quality standards or waste discharge requirements. Therefore, water quality impacts associated with construction activities would be less than significant.

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### 2. *Post-Development Water Quality Impact*

The Project Applicant would be required to prepare and implement a Water Quality Management Plan (WQMP) to demonstrate compliance with the City’s NPDES municipal stormwater permit, and to minimize the release of potential waterborne pollutants, including pollutants of concern for downstream receiving waters. The WQMP is a site-specific post-construction water quality management program designed to address the potential release of pollutants of concern for downstream receiving waters and other water pollutants through the use of BMPs. Implementation of the WQMP ensures on-going, long-term protection of the watershed basin. The preliminary WQMP for the Project was prepared by Westland and is included as *Technical Appendix H2* to the DEIR. As identified in the WQMP, the Project is designed to include underground stormwater retention chambers, source control BMPs, and treatment control BMPs to minimize, prevent, and/or otherwise appropriately treat stormwater runoff flows for pollutants of concern before they are discharged into the municipal storm drain system (Westland, 2022b, pp. 4 to 6). Compliance with the preliminary WQMP would be required as a condition or Project approval pursuant to Ontario Municipal Code Title 6, Chapter 6, Article V, and long-term maintenance of on-site BMPs would be required to ensure their long-term effectiveness. Therefore, water quality impacts associated with long-term operational activities would be less than significant.

Additionally, pursuant to Ontario Municipal Code Title 6, Chapter 6, Article IV, all businesses that own or operate facilities described in 40 CFR 122.26(b)(14)(i)-(xi) are required to obtain coverage under the State’s General Permit for Discharges of Stormwater Associated with Industrial Activities, at least 14 days prior to the startup of business activities. All listed businesses are required to submit a completed Notice of Intent (NOI) form, site map and application fee to the SWRCB. The SWRCB also requires the listed businesses to prepare a SWPPP, retain a copy of the SWPPP on site and comply with all the requirements of the general permit. The Project would be required to prepare a SWPPP for operational activities and implement a long-term water quality sampling and monitoring program or receive an exemption. Because the permit is dependent upon a detailed accounting of all operational activities and procedures, and the Project’s building users and their operational characteristics are not known at this time, details of the operational SWPPP (including BMPs) or potential exemption to the SWPPP operational activities requirement cannot be determined with certainty at this time. However, based on the performance requirements of the NPDES Industrial General Permit, the Project’s mandatory compliance with all applicable water quality regulations would further reduce potential water quality impacts during long-term operation. Additionally, the Project would comply with the State Trash Amendments and the MS4 Permit by installing the appropriate Full Capture System or equivalent.

Based on the foregoing analysis, the Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during long term operation. Impacts would be less than significant. (DEIR, pp. 4.8-10 – 4.8-11)

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### 3.10.2 THRESHOLD B

**Impact Statement:** The Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the Project would impede sustainable groundwater management of the basin.

#### Findings

Potential impacts of the Project related to Threshold b are discussed in detail in Section 4.8.4 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold b; therefore, no mitigation is required.

#### Substantial Evidence

Water service to the Project Site would be provided by the Ontario Municipal Utilities Company (OMUC). As depicted in Figure 3-7, *Proposed Utility Plan*, water would be accommodated via proposed water lines that would extend from the southeastern and southwestern corners of the building to an existing 12-inch water main at East Airport Drive. The Project Applicant does not propose the use of any wells or other groundwater extraction activities. Therefore, the Project would not directly draw water from the groundwater table. Implementation of the Project has no potential to substantially deplete or decrease groundwater supplies and the Project’s impact to groundwater supplies would be less than significant. Development of the Project would slightly increase impervious surface coverage on the Project Site, which would, in turn, slightly reduce the amount of water percolating down into the underground aquifer that underlies the Project Site and a majority of the City and surrounding areas (i.e., Chino Groundwater Basin). Percolation is just one of several sources of groundwater recharge for the Subbasin. A majority of the groundwater recharge in the Chino Groundwater Basin occurs within percolation basins (“recharge basins”) that are located in the northern and western portions of the Basin (CBWM, 2021, Exhibit 3-5). The Project Site is located in the central portion of the Chino Groundwater Basin and would not physically impact any of the major groundwater recharge facilities in the Basin. Therefore, the Project would not result in substantial, adverse effects to local groundwater levels. Additionally, the Project includes design features that would maximize the percolation of onsite stormwater runoff into the groundwater basin, such as underground infiltration chambers and permeable landscape areas. Accordingly, buildout of the Project with these design features would not interfere substantially with groundwater recharge or impede sustainable groundwater management of the Chino Groundwater Basin. Based on the foregoing information, the Project would not interfere substantially with groundwater recharge. For the reasons stated above, the Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project would impede sustainable groundwater management of the basin. Impacts would be less than significant. (DEIR, pp. 4.8-11 – 4.8-12)

### 3.10.3 THRESHOLD C

**Impact Statement:** The Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: result in substantial erosion or siltation on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding



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on- or offsite; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows.

### **Findings**

Potential impacts of the Project related to Threshold c are discussed in detail in Section 4.8.4 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold c; therefore, no mitigation is required.

### **Substantial Evidence**

The proposed Project entails redevelopment of the Project Site with one warehouse building supported by drive aisles and parking areas for passenger vehicles and trailers. Docking areas are located south facing façade of the proposed building. Landscape areas are proposed around the perimeter of the Site. The proposed development would consist of approximately 89% of impervious areas.

The proposed development would maintain the same drainage pattern as the existing condition. Stormwater is designed to sheet flow from north to south and be captured by proposed onsite catch basins. The proposed on-site storm drain system is designed to convey the flow into a proposed underground infiltration chamber. This system is designed to meet project’s water quality requirements and provide sufficient storage to meet the 100-year storm hydrology requirement. In a large storm event, stormwater would exit the underground chamber system via pipes and be pumped out through a proposed parkway drain on Airport Drive. Runoff would sheet flow east along Airport Drive and discharge into the existing catch basin to maintain the same point of discharge as the existing condition. (Westland, 2022a, p. 2) See Figure 4.8-1, *Proposed Post-Development Hydrology Map*, for the post development drainage map.

The following analysis evaluates the potential for Project-related development activities to adversely affect water quality or cause or exacerbate local flooding.

### **A. Erosion and Siltation**

The Project would not alter the existing drainage pattern. Pursuant to the requirements of the State Water Resources Control Board, the Project Applicant would be required to obtain coverage under the State’s General Construction Storm Water Permit for construction activities (NPDES permit). The NPDES permit is required for all development projects, including the Project, that include construction activities, such as clearing, grading, and/or excavation, that disturb at least 1 acre of total land area. In addition, the Project would be required to comply with the Santa Ana RWQCB’s Santa Ana River Basin Water Quality Control Program. Compliance with the NPDES permit and the Santa Ana River Basin Water Quality Control Program involves the preparation and implementation of a SWPPP for construction-related activities. The SWPPP will specify the BMPs that would be required to be implemented during construction activities to ensure that waterborne pollution – including erosion/siltation – is prevented, minimized, and/or otherwise appropriately treated prior to surface runoff being discharged from the subject property. Examples of BMPs that may be utilized during construction include, but are not limited to, sandbag barriers, geotextiles, storm drain inlet protection,

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sediment traps, rip rap soil stabilizers, and hydro-seeding. Lastly, the Project would be required to implement erosion control measures pursuant to Ontario Municipal Code Title 6, Chapter 12, and to ensure compliance with SCAQMD Rule 403. Mandatory compliance with the SWPPP and the City required erosion control measures would ensure that the Project’s implementation does not violate any water quality standards or waste discharge requirements during construction activities. Based on the foregoing information, erosion and sedimentation impacts associated with Project construction activities would be less than significant.

During operation of the Project, the Project Applicant would be required to prepare and implement a WQMP to demonstrate compliance with the City’s NPDES municipal stormwater permit, and to minimize the release of potential waterborne pollutants, including pollutants of concern for downstream receiving waters. The WQMP is a site-specific post-construction water quality management program designed to address the potential release of pollutants of concern for downstream receiving waters and other water pollutants through the use of BMPs. Implementation of the WQMP ensures on-going, long-term protection of the watershed basin. The PWQMP for the Project was prepared by Westland and is included as *Technical Appendix H2* to the DEIR. Because the Project Applicant would be required to utilize erosion and sediment control measures to preclude substantial, long-term soil erosion and loss of topsoil, Project operation would result in less-than-significant impacts related to soil erosion and sedimentation.

### **B. Stormwater Runoff Discharge**

Based on the 100-year rational method analysis presented in Table 4.8-1, *Pre-Development Hydrology Summary Table*, and Table 4.8-2, *Post-Development Hydrology Summary Table*, the post-development flow rate within the disturbed area decreased compared to the pre-development flow rate. Furthermore, the post-development runoff volume decreased compared to the pre-development runoff volume. The decrease in flow rate and runoff volume was a result from a decrease in impervious areas.

The proposed Project would not create or contribute runoff that would exceed the capacity of the existing downstream storm drain system. At buildout, the Project would discharge approximately 35.24 cubic feet per second (cfs) to the existing storm drain system, which is an approximately 7 percent decrease relative to existing conditions. Furthermore, the underground infiltration system is designed to accommodate the 100-year storm event and would not exceed the flow rates and runoff volumes generated by the existing condition. Once construction is complete, there would not be any substantial increase in flood boundaries, levels, or frequencies in any areas outside the development. (Westland, 2022a, p. 4)

Based on the foregoing information, the Project would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site. Impacts would be less than significant.

### **C. Stormwater Drainage System Capacity & Polluted Runoff**

As described above, buildout of the Project would reduce the cfs of runoff discharged into the existing municipal storm drain system during peak storm events relative to existing conditions. Accordingly,

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the Project would not create or contribute runoff that would exceed the capacity of any existing storm water drainage system, and impacts would be less than significant.

As discussed in the response to Threshold “a” and this Threshold (refer to sub-item “A”), the Project’s construction contractors would be required to comply with a SWPPP and the Project’s owner or operator would be required to comply with the WQMP to ensure that Project-related construction activities and operational activities do not result in substantial amounts of polluted runoff. Additionally, the Project would comply with the State Trash Amendments and the MS4 Permit by installing the appropriate Full Capture System or equivalent. The Project would not result in substantial additional sources of polluted runoff and impacts would be less than significant.

### **D. Flood Flows**

The Project Site is not located within a special flood hazard area (FEMA, 2016). Accordingly, the Project Site is not expected to be inundated by flood flows during the lifetime of the Project and the Project would not impede flood flows. No impact would occur. (DEIR, pp. 4.8-12 – 4.8-16)

### **3.10.4 THRESHOLD D**

**Impact Statement:** The Project would not result in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.

#### **Findings**

Potential impacts of the Project related to Threshold d are discussed in detail in Section 4.8.4 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in impacts related to Threshold d; therefore, no mitigation is required.

#### **Substantial Evidence**

The Project Site is located approximately 38 miles northeast of the Pacific Ocean; consequently, there is no potential for the Project Site to be impacted by a tsunamis as tsunamis typically only reach up to a few miles inland. The Project Site also is not subject to flooding hazards associated with a seiche because the nearest body of water is the San Antonio Dam, approximately 10 miles to the north of the Project Site, which is too far away from the subject property to impact the property with a seiche (Google Earth, 2021). According to The Ontario Plan 2050 EIR, the Project Site is not located within the potential inundation from San Antonio Dam; however, the Project Site is adjacent to an area with potential inundation from debris basins (Ontario, 2022a, Figure 5.10-3). The probability of dam failure is very low, and Ontario has never been impacted by a major dam failure. In addition, dam owners are required to maintain emergency action plans that include procedures for damage assessment and emergency warnings. (Ontario, 2022a, p. 5.10-26) Accordingly, impacts would be less than significant. (DEIR, p. 4.8-16)

### **3.10.5 THRESHOLD E**

**Impact Statement:** The Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

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### **Findings**

Potential impacts of the Project related to Threshold e are discussed in detail in Section 4.8.6 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold e; therefore, no mitigation is required.

### **Substantial Evidence**

As discussed under Threshold “a” above, the Project Site is located within the Santa Ana River Basin and Project-related construction and operational activities would be required to comply with the Santa Ana RWQCB’s Santa Ana River Basin Water Quality Control Plan by preparing and adhering to a SWPPP and WQMP. As also discussed in Threshold “a” above, implementation of the Project would not conflict with or obstruct the Santa Ana River Basin Water Quality Control Plan and impacts would be less than significant.

The Project Site is located within the Chino Groundwater Basin, which is an adjudicated groundwater basin. Adjudicated basins, like the Chino Groundwater Basin, are exempt from the 2014 Sustainable Groundwater Management Act (SGMA) because such basins already operate under a court-ordered management plan to ensure the long-term sustainability of the basin. No component of the Project would obstruct with or prevent implementation of the management plan for the Chino Groundwater Basin. As such, the Project’s construction and operation would not conflict with any sustainable groundwater management plan. Impacts would be less than significant. (DEIR, p. 4.8-17)

## **3.11 LAND USE AND PLANNING**

### **3.11.1 THRESHOLD A**

**Impact Statement:** The Project would not physically divide an established community.

### **Findings**

Potential impacts of the Project related to Threshold a are discussed in detail in Section 5.4.3 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold a; therefore, no mitigation is required.

### **Substantial Evidence**

The Project Site is located in an area that is currently developed with urban land uses. Existing industrial development borders the Site to the south, west, and east; the BNSF railroad track borders the Site to the north. The Project Applicant would redevelop the Site with another industrial use with associated parking and landscaping improvements. The Project will be of similar design and size to surrounding development. The Project would not have the potential to physically divide an established community. No adverse impacts are anticipated.. (DEIR, p. 5-5-7)

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### 3.11.2 THRESHOLD B

**Impact Statement:** The Project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

**Findings**

Potential impacts of the Project related to Threshold b are discussed in detail in Section 5.4.3 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold b; therefore, no mitigation is required.

**Substantial Evidence**

The Project Site is designated for Industrial by the City’s Policy Plan and the Heavy Industrial zoning district. The Project Applicant would redevelop the Project Site in accordance with the underlying land use designation and applicable zoning ordinance development standards. No change to the existing land use designation or zoning is required or proposed by the Project. The Project is consistent with the Policy Plan and does not interfere with any policies for environmental protection. As such, no impacts are anticipated. (DEIR, p. 5-5-7)

### 3.12 MINERAL RESOURCES

#### 3.12.1 THRESHOLD A

**Impact Statement:** The Project would not result in the loss of availability of a known mineral resource of value to the region and residents of the state.

**Findings**

Potential impacts of the Project related to Threshold a are discussed Section 5.4.4 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold a; therefore, no mitigation is required.

**Substantial Evidence**

The Project Site is located within a mostly developed area surrounded by urban land uses. As shown in Figure 5.12-1 of The Ontario Plan 2050 Final Supplemental EIR, the Project Site is designated as Mineral Resource Zone MRZ-3 (Ontario, 2022b). Areas designated by the State of California Geologist as MRZ-3 include land that the significance of mineral deposits cannot be determined from the available data. According to the Policy Plan, there are no permitted mining operations in the City. Significant mineral resources within Ontario are limited to construction aggregate. These areas have been developed with urban uses and are not suitable for mineral resource extraction (Ontario, 2022a). There are no known mineral resources in the area. Therefore, no impacts are anticipated. (DEIR, p. 5-5-7)

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### 3.12.2 THRESHOLD B

**Impact Statement:** The Project would not result in the loss of availability of a locally important mineral resource recovery site delineated on any land use plan.

**Findings**

Potential impacts of the Project related to Threshold b are discussed Section 5.4.4 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold b; therefore, no mitigation is required.

**Substantial Evidence**

As discussed in threshold a above, there are no known mineral resources in the area. The Project would not result in the loss of availability of locally-important mineral resources. No impacts are anticipated. (DEIR, p. 5-5-8)

### 3.13 NOISE

#### 3.13.1 THRESHOLD A

**Impact Statement:** The Project will not generate substantial increase in ambient noise levels in the vicinity of the Project site in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

**Findings**

Potential impacts of the Project related to Threshold a are discussed in detail in Section 4.9.6 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in impacts related to Threshold a; therefore, no mitigation is required.

**Substantial Evidence**

The analysis presented on the following pages summarizes the Project’s potential construction noise levels and operational noise levels, including operational noise that would be generated on-site as well as off-site noise that would be generated by Project-related traffic. The detailed noise calculations for the analysis presented here are provided in Appendices 7.1 and 8.1 of the Project’s noise impact analysis (see *Technical Appendix I*).

#### **A. Construction Noise Impact Analysis**

Construction activities on the Project Site would proceed in 6 stages: 1) demolition; 2) site preparation; 3) grading; 4) building construction; 5) paving, and 6) application of architectural coatings. These activities would create temporary periods of noise when heavy construction equipment (i.e. trucks, concrete mixer, portable generators, power tools) is in operation and would cause a short-term increase in ambient noise levels. The Project construction noise levels at nearby receiver locations are summarized in Table 4.9-5, *Construction Equipment Noise Level Summary*.

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To evaluate whether the Project will generate potentially significant short-term noise levels at nearest receiver locations, a construction-related daytime noise level threshold of 80 dBA Leq is used as a reasonable threshold to assess the daytime construction noise level impacts. The construction noise analysis shows that the nearest receiver locations will satisfy the reasonable daytime 80 dBA Leq significance threshold during Project construction activities as shown in Table 4.9-5. Additionally, Project-related construction activities are expected to occur on weekdays (and, potentially, on Saturdays) during the hours when the City’s Municipal Code does not restrict construction noise (i.e., between the hours 7:00 a.m. and 6:00 p.m. on any weekday or between the hours of 9:00 a.m. and 6:00 p.m. on Saturday or Sunday). Accordingly, construction noise impacts would be less than significant. If the Project’s construction requires concrete pouring during nighttime hours, the resulting noise levels are summarized in Table 4.9-6, *Nighttime Concrete Pouring Noise Level Summary*. At all receiver locations, the Project’s nighttime concrete pouring noise levels would not exceed the standards established by the City and impacts would be less than significant

### **B. Operational Noise Impact Analysis – Stationary Noise**

Stationary (on-site) noise sources associated with long-term Project operation are expected to include idling trucks, delivery truck and automobile parking, delivery truck backup alarms, roof-top air conditioning units, loading and unloading of dry goods, and parking lot vehicle movements. The Project also is expected to generate noise during the loading and unloading of delivery trailers on-site. The daytime and nighttime Project stationary noise levels at nearby sensitive receptor locations are summarized Table 4.9-7, *Daytime Project Operational Noise Levels*, and Table 4.9-8, *Nighttime Project Operational Noise Levels*. Table 4.9-7, *Daytime Project Operational Noise Levels*, shows the Project operational noise levels during the daytime hours of 7:00 a.m. to 10:00 p.m. The daytime hourly noise levels at the off-site receiver locations are expected to range from 22.2 to 27.4 dBA Leq.

Table 4.9-8, *Nighttime Project Operational Noise Levels*, shows the Project operational noise levels during the nighttime hours of 10:00 p.m. to 7:00 a.m. The nighttime hourly noise levels at the off-site receiver locations are expected to range from 22.1 to 27.4 dBA Leq. The daytime and nighttime Project stationary noise levels at nearby receiver locations are summarized in Table 4.9-9, *Project Operational Noise Summary – Stationary Noise*. As shown, Project stationary noise would not expose nearby receivers to unacceptable daytime or nighttime noise levels during Project operations following Project buildout. Accordingly, Project operation would not result in the exposure of receivers near the Project Site to stationary noise levels that exceed the exterior noise level standards established in the City. Impacts would be less than significant.

Noise levels that would be experienced at receiver locations when unmitigated Project-source noise is added to the ambient daytime, evening, and nighttime conditions are presented on Table 4.9-10, *Project Operational Noise Level Contributions – Daytime* and Table 4.9-11, *Project Operational Noise Level Contributions – Nighttime*. As shown, the Project-related operational noise level increases will satisfy the operational noise level increase criteria at the nearest sensitive receiver locations. On this basis, although the Project would increase noise level in the Project vicinity, Project operational stationary source noise would not result in a substantial temporary/periodic, or permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project. Noise impacts associated with long-term on-site operations would be less than significant.

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### **C. Off-Site Transportation Noise Impact Analysis**

Traffic generated by the operation of the proposed Project will influence the traffic noise levels in surrounding off-site areas and at the Project Site. The off-site Project-related traffic represents an incremental increase to the existing roadway volumes, which is not expected to generate a barely perceptible noise level increase of 3 dBA CNEL at nearby sensitive land uses adjacent to study area roadways, since a doubling of the existing traffic volumes would be required to generate a 3 dBA CNEL increase. Due to the low traffic volumes generated by the Project, the off-site traffic noise levels generated by the Project are considered less than significant and no further analysis is required. (DEIR, pp. 4.9-16 – 4.9-21)

#### **3.13.2 THRESHOLD B**

**Impact Statement:** The Project will not generate excessive groundborne vibration or groundborne noise levels.

##### **Findings**

Potential impacts of the Project related to Threshold b are discussed in detail in Section 4.9.6 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in impacts related to Threshold b; therefore, no mitigation is required.

##### **Substantial Evidence**

**Construction Analysis:** Construction activities on the Project Site would utilize equipment that has the potential to generate vibration. Vibration levels at sensitive receptors near the Project Site during Project construction are summarized on Table 4.9-12, *Construction Equipment Vibration Levels*. As shown, none of the receiver locations in the vicinity of the Project Site would be exposed to vibration levels that exceed the applicable significance threshold. Accordingly, Project construction would not generate excessive or substantial temporary groundborne vibration or noise levels and a less-than-significant impact would occur.

**Operational Analysis:** Under long-term conditions, the Project would not include or require equipment or activities that would result in perceptible groundborne vibration beyond the Project Site. Trucks would travel to and from the Project Site along local roadways; however, vibration levels for heavy trucks operating at the posted speed limits on paved surfaces are not perceptible beyond the roadway. The Project would not result in the exposure of persons to excessive groundborne vibration or noise levels during long-term operation. (DEIR, pp. 4.10-21 – 4.10-22)

#### **3.13.3 THRESHOLD C**

**Impact Statement:** The Project is not located within vicinity of a private airstrip or airport land use plan, or within two miles of a public airport or public use airport.



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### **Findings**

Potential impacts of the Project related to Threshold c are discussed in detail in Section 4.10.6 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in impacts related to Threshold c; therefore, no mitigation is required.

### **Substantial Evidence**

The Project Site is located approximately 2.7 miles east of ONT. The Project Site is located within the ONT Airport Influence Area but is located outside the 65 dBA CNEL airport noise impact zone. According to Table 2-3 of the ONT ALUCP, industrial land uses located outside the 65 dBA CNEL noise level contours of ONT, such as the Project, are considered normally compatible land use. For normally compatible land use, either the activities associated with the land use are inherently noisy or standard construction methods will sufficiently attenuate exterior noise to an acceptable indoor CNEL. Accordingly, the Project would be a compatible use within the ONT Noise Impact Zone and operation of the Project would not expose people working on the Project Site to excessive noise levels. The Project’s impact would be less than significant. (DEIR, p. 4.9-22)

## **3.14 POPULATION AND HOUSING**

### **3.14.1 THRESHOLD A**

**Impact Statement:** The Project would not induce substantial unplanned population growth in the area.

### **Findings**

Potential impacts of the Project related to Threshold a are discussed Section 5.4.5 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold a; therefore, no mitigation is required.

### **Substantial Evidence**

The Project would result in the development of approximately 270,337 s.f. warehouse facility, replacing an existing grain processing and corn storage and distribution facility. According to Southern California Association of Governments’ (SCAG) Employment Density Study, the Project would generate approximately 226 employees (Urban Crossroads, 2022f). According to the California Employment Development Department (EDD), as of June 2022, the City of Ontario has a labor force of 92,300 persons and of that labor force, 3,200 are unemployed (unemployment rate of 3.5 percent) (EDD, 2022). According to SCAG’s 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy, the City of Ontario is anticipated to employ approximately 169,300 persons by 2045 (SCAG, 2020b). As discussed above, TOP 2050 projected a total of 296,002 jobs in 2050. Therefore, the Project is consistent with the SCAG’s 2045 and the TOP 2050 employment projections for the City. Project-generated jobs are well within the employment projections for the City of Ontario. Operation of the Project would not induce substantial unplanned population growth in the Project area, either directly or indirectly and would not exceed regional or local growth projections. Therefore, no impacts are anticipated. (DEIR, p. 5-5-8)

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### 3.14.2 THRESHOLD B

**Impact Statement:** The Project would not displace substantial numbers of existing people or housing.

**Findings**

Potential impacts of the Project related to Threshold b are discussed Section 5.4.5 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold b; therefore, no mitigation is required.

**Substantial Evidence**

The Project Site does not contain any housing and there are no people living at the Project Site that would be displaced by the Project. Therefore, no impacts are anticipated. (DEIR, p. 5-5-8)

### 3.15 PUBLIC SERVICES

#### 3.15.1 THRESHOLD A

**Impact Statement:** The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of public services.

**Findings**

Potential impacts of the Project related to Threshold a are discussed Section 5.4.6 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold a; therefore, no mitigation is required.

**Substantial Evidence**

**A. Fire Protection**

Fire protection services are provided by the Ontario Fire Department (OFD). OFD serves these residents from 10 strategically located fire stations, including the Ontario International Airport fire station, with a daily staffing level of 59 sworn firefighters. These fire stations house nine 4-person paramedic engine companies, three 4-person truck companies, an 8-person Aircraft Rescue and Fire Fighting (ARFF) station, 1 fire investigation supervisor, and 2 battalion chiefs (Ontario, 2022c). The closest fire station to the Project Site is Station 7, located at 4901 Vanderbilt Street, approximately 1.3 miles to the southwest of the Project Site. The proposed building would be in accordance with the applicable provisions of the adopted California Fire Code (CFC) and the City’s Municipal Code Section 4-4.01, ordinances, and standard conditions regarding fire prevention and suppression measures related to water improvement plans, fire hydrants, fire access, and water availability. The Project Site is in a developed area currently served by OFD. The Project will not require the construction of any new fire protection facilities or alteration of any existing fire protection facilities or cause a decline in the levels of service, which could cause the need to construct new fire protection

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facilities. Development impact fees (DIF) would also be collected in order to build and supply necessary infrastructure for fire protection services, as necessary. No impacts are anticipated.

### **B. Police Protection**

Police protection services are provided by the Ontario Police Department (OPD). OPD’s headquarters is located at 2500 S. Archibald Avenue, approximately 4.16 miles to the southwest of the Project Site. The Project Site is in a developed area, currently served by OPD. The Project will not require the construction of any new police protection facilities or alteration of any existing police protection facilities or cause a decline in the levels of service, which could cause the need to construct new police protection facilities. DIF would also be collected in order to build and supply necessary infrastructure for police protection services, as necessary. No impacts are anticipated.

### **C. Schools**

The Project is located within the attendance boundaries of the Cucamonga Elementary School District and Chaffey Joint Union High School District. The Project Applicant proposes to demolish the existing grain processing and corn storage and distribution facility and redevelop the Site with a single industrial building. Implementation of the Project does not have the potential to result in substantial direct growth in the population, nor an increase in student population. The Project would be required to pay school fees as prescribed by state law prior to the issuance of building permits. No impacts are anticipated.

### **D. Parks**

The City of Ontario Recreation & Community Services Department operates and manages parks and park programs for the City. The Project would not introduce new residents to the City necessitating the need for additional parks. The Project will not require the construction of any new parks or alteration of any existing parks or cause a decline in the levels of service, which could cause the need to construct new park facilities. No impacts are anticipated.

### **E. Other Public Facilities**

The Project would not introduce new residents to the City necessitating the need for additional public facilities. The Project will not require the construction of any new public facilities or alteration of any existing public facilities or cause a decline in the levels of service, which could cause the need to construct new public facilities. No impacts are anticipated. (DEIR, pp. 5-5-9 – 5-5-10)

## **3.16 RECREATION**

### **3.16.1 THRESHOLD A**

**Impact Statement:** The Project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

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### **Findings**

Potential impacts of the Project related to Threshold a are discussed Section 5.4.7 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold a; therefore, no mitigation is required.

### **Substantial Evidence**

The Project is not proposing any significant new housing or large employment generator that would cause an increase in the use of neighborhood parks or other recreational facilities. No impacts are anticipated. (DEIR, p. 5-5-10)

### **3.16.2 THRESHOLD B**

**Impact Statement:** The Project would not require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

### **Findings**

Potential impacts of the Project related to Threshold b are discussed Section 5.4.7 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold b; therefore, no mitigation is required.

### **Substantial Evidence**

The Project does not include recreational facilities or require the construction or expansion of recreational facilities. Implementation of the Project would not result in any adverse physical effects on the environment due to the construction of recreational facilities. No impacts are anticipated. (DEIR, p. 5-5-10)

## **3.17 TRANSPORTATION**

### **3.17.1 THRESHOLD A**

**Impact Statement:** The Project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

### **Findings**

Potential impacts of the Project related to Threshold a are discussed in detail in Section 4.10.4 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold a; therefore, no mitigation is required.

### **Substantial Evidence**

This response provides an analysis of a project’s potential to conflict with plans, programs, ordinances, or policies that address the circulation system, including transit, roadway, bicycle, and pedestrian facilities. A project that generally conforms with, and does not obstruct, applicable development plans, programs, ordinances, and policies is considered to be consistent. The transportation plans, policies,

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programs, ordinances, and standards that are relevant to the Project are identified in the analysis below. For context, the Project is expected to generate approximately 160 more vehicle trips than are being generated by the uses at the Project Site under existing conditions. (Urban Crossroads, 2023a.) In order to develop the traffic characteristics of the proposed Project, trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021) for the proposed Project’s land uses was utilized. As shown in Table 4.10-2, *Project Trip Generation*, the proposed Project is anticipated to generate 476 vehicle trip-ends per day with 42 AM peak hour trips and 46 PM peak hour trips. Taking into consideration that the existing structures proposed for demolition generate 316 daily trips (see Table 4.10-1), the net number of new trips that would be generated by the Project is 160 trips with 12 AM peak hour trips and 44 PM peak hour trips above the trips generated by existing uses. The comparison is shown below in Table 4.10-3, *Project Net New Daily Trips*.

Connect SoCal: The fundamental goals of SCAG’s Connect SoCal are to make the SCAG region a better place to live, work, and play for all residents regardless of race, ethnicity, or income class. As shown in Table 4.10- 4, *SCAG’s Connect SoCal Goal Consistency Analysis*, the Project would not conflict with any applicable goals and policies of SCAG’s regional planning program. As such, Project impacts would be less than significant.

City of Ontario Policy Plan: As demonstrated in Table 4.10-5, *Mobility Element Policy Consistency Analysis*, the Project would not conflict with the City’s Mobility Element, and impacts associated with conflict of an applicable program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities would be less than significant. (DEIR, pp. 4.10-5 – 4.10.11)

### 3.17.2 THRESHOLD C

**Impact Statement:** The Project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

#### **Findings**

Potential impacts of the Project related to Threshold c are discussed in detail in Section 4.10.4 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold c; therefore, no mitigation is required.

#### **Substantial Evidence**

The Project’s potential to increase hazards as a result of a geometric design feature has been assessed to provide adequate truck access/circulation. The Project’s circulation plan is designed to be compatible with all foreseeable vehicles. Vehicular access would be provided via two driveways that would connect with East Airport Drive. Both driveways would include enhanced decorative paving and would provide inbound/outbound access for passenger vehicles and trucks. The driveways are designed as 40 feet wide to accommodate the wide turning radius of the heavy trucks. The types of traffic generated during operation of the Project (i.e., passenger cars and trucks) would be compatible with the type of traffic generated by surrounding development. All proposed improvements within the

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public right-of-way would be installed in conformance with City design standards. If any component of Project construction would occur in the public right-of-way and require the partial or full closure of a sidewalk and/or travel lane, all work would be required to adhere to the applicable construction control practices that are specified in the *State of California Department of Transportation Construction Manual and the California Manual on Uniform Traffic Control Devices*, to minimize potential safety hazards. The City of Ontario Engineering Department reviewed the Project’s application materials and determined that no hazardous transportation design features would be introduced within the City public right-of-way through implementation of the Project. At the time of final grading, landscape, and street improvement plans, the City will review project access points to ensure adequate sight distance. Based on the foregoing information, the Project’s construction and operation would not create or substantially increase safety hazards due to a design feature or incompatible use and impacts would be less than significant. (DEIR, p. 4.10-14)

### **3.17.3 THRESHOLD D**

**Impact Statement:** The Project would not result in inadequate emergency access.

**Findings**

Potential impacts of the Project related to Threshold d are discussed in detail in Section 4.11.6 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold d; therefore, no mitigation is required.

**Substantial Evidence**

The Project is designed to provide access for all emergency vehicles and meet all applicable City of Ontario Fire and Police Department access requirements to ensure that adequate access would be provided for emergency vehicles at Project build out. During construction activities that include road and sidewalk improvements, the Project would provide adequate emergency access along abutting roadways during temporary construction activities within the public right-of-way. Any Project construction activities that would occur within the East Airport Drive public right-of-way and requires a partial or full closure of a sidewalk or vehicle travel lane would require a traffic control plan that complies with the *California Manual on Uniform Traffic Control Devices* and that must be approved by the City of Ontario to ensure that emergency response is not adversely affected. As a result, the Project would not a less than significant impact to emergency access. (DEIR, pp. 4.10-14 – 4.10-15)

## **3.18 UTILITIES AND SERVICE SYSTEMS**

### **3.18.1 THRESHOLD A**

**Impact Statement:** The Project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

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### **Findings**

Potential impacts of the Project related to Threshold a are discussed in detail in Section 4.12.4 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold a; therefore, no mitigation is required.

### **Substantial Evidence**

#### **A. Water and Wastewater**

The Project would include the installation of water lines within the Project Site. Water would be accommodated via proposed water lines that would extend from the southeastern and southwestern corners of the building to an existing 12-inch water main at East Airport Drive. Additionally, recycled water to the Project Site would be provided via a proposed 8-inch recycled water main along East Airport Drive. The proposed 8-inch recycled water main would extend from the west of South Wineville Avenue to the eastern boundary of the Project Site and connect to the existing 24-inch recycled water main. Sanitary sewer service to the Project Site would be provided by OMUC’s sanitary sewer wastewater collection system and conveyed to the Inland Empire Utilities Agency (IEUA) for wastewater treatment. Sewer would be accommodated via proposed 6-inch sewer line that would extend from the southwestern corners of the building to a proposed 8-inch OMUC sewer main on East Airport Drive. There is an existing 8-inch OMUC sewer main on East Airport Drive that ends approximately at the western boundary of the Project Site where the proposed 8-inch sewer main would connect to. Although the Project would result in new water and wastewater line connections, these connections would be part of the Project’s construction phase, which is evaluated throughout the DEIR. The construction of the Project’s water and wastewater lines necessary to serve the Project would not result in any significant physical effects on the environment that are not already identified and disclosed as part of the DEIR. Impacts would be less than significant.

#### **B. Stormwater Drainage**

Stormwater will sheet flow from north to south and will be captured by proposed on-site catch basins. The proposed on-site storm drain system will convey the flow into a proposed underground infiltration chamber. In a large storm event, stormwater will exit the underground chamber system via pipes and will be pumped out through a proposed parkway drain on Airport Drive. Runoff will sheet flow east along Airport Drive and discharge into the existing catch basin, located approximately 1,500 feet east of the Project Site, to maintain the same point of discharge as the existing condition.

Refer to the analysis under Section 4.8, *Hydrology and Water Quality*, Threshold c.ii. As discussed, stormwater runoff would be treated on-site and would not require relocation or construction of new or expanded storm water drainage infrastructure which could cause significant environmental effects. Therefore, impacts would be less than significant.

#### **C. Dry Utilities**

Electricity will be provided by SCE. All new dry utility infrastructure would be installed underground and within the Project Site. Connections to the existing utility networks are available in the Project area and any offsite improvements would occur within improved rights-of-way, which are inherent to

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the Project’s construction phase and have been evaluated throughout the DEIR. Because the Project Site has been previously developed with industrial uses that requires electric power and telecommunication services, implementation of the Project is not anticipated to limit the ability of service providers to provide service to Project. Therefore, the Project would not require or result in the construction or expansion of new facilities, and impacts would be less than significant. (DEIR, pp. 4.12-9 – 4.12-10)

### 3.18.2 THRESHOLD B

**Impact Statement:** The Project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.

#### Findings

Potential impacts of the Project related to Threshold b are discussed in detail in Section 4.12.4 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold b; therefore, no mitigation is required.

#### Substantial Evidence

OMUC is responsible for supplying potable water to the Project Site. The OMUC’s 2020 UWMP includes an analysis of water supply reliability projected through 2045 under normal years, single dry year, and multiple dry years. OMUC’s total water demand for 2020 was approximately 32,109 AF (OMUC, 2021). OMUC’s forecasts for projected water demand based on the population projections of the Southern California Associations of Governments (SCAG), which rely on the adopted land use designations contained within the general plans that cover the geographic area within OMUC’s service. Because the Project Applicant would redevelop the Site with a use permitted under the Heavy Industrial land use designation, the Project would be consistent with the City’s Policy Plan and, therefore, the water demand associated with the Project was considered in the demand anticipated by the 2020 UWMP and analyzed therein. As stated above, the City is anticipated to have adequate water supplies to meet all its demands until the year 2045 under a normal year, single dry year, and multiple dry years. Therefore, the City has sufficient water supplies available to serve the Project from existing entitlements/resources and no new or expanded entitlements are needed. Impacts would be less than significant. (DEIR, p. 4.12-10)

### 3.18.3 THRESHOLD C

**Impact Statement:** The Project would not result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments.

#### Findings

Potential impacts of the Project related to Threshold c are discussed in detail in Section 4.12.4 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold c; therefore, no mitigation is required.



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### **Substantial Evidence**

IEUA is responsible for supplying wastewater treatment services to the Project Site. There are four recycling plants (RPs) within the IEUA’s service area. Regional Water Recycling Plant No. 1 (RP-1) is located in the City of Ontario and has been in operation since 1948. According to IEUA’s 2020 UWMP, the current wastewater treatment capacity of RP-1 is 44 MGD, although it currently treats approximately 21 MGD. (IEUA, 2021) The Project Site is currently developed and served by septic tank systems. The Project Applicant would demolish the existing structures and redevelop the Site with an approximately 270,337 s.f. building. The Project is calculated to generate 28,776 gallons per day (gpd) of wastewater ( $2,200 \text{ gpd/acre} \times 13.08 \text{ acres} = 28,776 \text{ gpd}$ ). The wastewater generated by the Project would only represent approximately 0.13 percent of the excess treatment capacity of RP-1 ( $[28,776 \text{ gpd} \div 23 \text{ million gpd}] \times 100 = 0.13 \%$ ); therefore, it is anticipated that RP-1 have sufficient treatment capacity to provide service to the Project. The associated increase in wastewater generation would have a negligible effect on the wastewater treatment provider. As such, the IEUA’s existing wastewater treatment facilities are anticipated to have adequate capacity to serve the Project’s project demand in addition to its existing commitments. Impacts would be less than significant. (DEIR, p. 4.12-11)

### **3.18.4 THRESHOLD D**

**Impact Statement:** The Project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

### **Findings**

Potential impacts of the Project related to Threshold d are discussed in detail in Section 4.12.4 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold d; therefore, no mitigation is required.

### **Substantial Evidence**

Solid waste generated during the operation of the Project is anticipated to be collected by the City of Ontario and is anticipated to be hauled to either Badlands Sanitary Landfill or El Sobrante Landfill. As previously discussed, the Badlands Sanitary Landfill has a permitted disposal capacity of 4,800 tons per day with a remaining capacity of 15,748,799 cubic yards. The Badlands Sanitary Landfill is estimated to reach capacity, at the earliest time, in the year 2022 (CalRecycle, 2022a). The El Sobrante Landfill is permitted to receive 16,054 tons of solid waste per day with a remaining capacity of 143,977,170 ton. The El Sobrante Landfill is estimated to reach capacity, at the earliest time, in the year 2051. (CalRecycle, 2022b; CalRecycle, 2022c) Based on the generation rate of 1.42 pounds per 100 s.f. per day, the proposed 270,337 s.f. building would result in approximately 3,838 pounds per day (1.91 tons per day). As previously stated, the Badlands Sanitary Landfill has a permitted disposal capacity of 4,800 tons per day and the El Sobrante Landfill has a permitted disposal capacity of 16,054 tons per day. The Project generated solid waste represents a nominal portion of the landfill’s capacity and would not contribute significantly to the daily landfill capacity, and the landfill facilities are sufficient. Accordingly, impacts would be less than significant. (DEIR, p. 4.12-11)

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### 3.18.5 THRESHOLD E

**Impact Statement:** The Project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

**Findings**

Potential impacts of the Project related to Threshold e are discussed in detail in Section 4.12.4 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold e; therefore, no mitigation is required.

**Substantial Evidence**

The following federal and state laws and regulations govern solid waste disposal:

- AB 939 (Chapter 1095, Statutes of 1989), the California Integrated Waste Management Act of 1989 required each city, county, and regional agency to develop a source reduction and recycling element of an integrated waste management plan that contained specified components, including a source reduction component, a recycling component, and a composting component. With certain exceptions, the source reduction and recycling components were required to divert 50 percent of all solid waste from landfill disposal or transformation by January 1, 2000, through source reduction, recycling, and composting activities.
- AB 32 (Chapter 488, Statutes of 2006), the California Global Warming Solutions Act, established mandatory recycling as one of the measures to reduce GHG emissions adopted in the Scoping Plan by the California Air Resources Board.
- AB 341 (Chapter 476, Statutes of 2011) requires that all “commercial” generators of solid waste (businesses, institutions, and multifamily dwellings) establish recycling and/or composting programs. AB 341 goes beyond AB 939 and establishes the new recycling goal of 75 percent by 2020.

The Project would implement the requirements of the City’s Integrated Waste Department's Refuse & Recycling Planning Manual on refuse and recycling storage and access for service, as well as addressing the City's recycling goals. The requirements of Chapter 3, Integrated Waste Management, of the Municipal Code will also be implemented to ensure that the Project complies with all applicable state and federal laws. Therefore, no impacts would occur. (DEIR, p. 4.12-12)

### 3.19 WILDFIRE

#### 3.19.1 THRESHOLD A

**Impact Statement:** The Project would not substantially impair an adopted emergency response plan or emergency evacuation plan.

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### **Findings**

Potential impacts of the Project related to Threshold a is discussed Section 5.4.8 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold a; therefore, no mitigation is required.

### **Substantial Evidence**

The State Responsibility Area (SRA) is the land where the State of California is financially responsible for the preservation and suppression of wildfires. The SRA does not include lands within City boundaries or in federal ownership; therefore, the Project Site does not have the potential to be in an SRA. According to the California Department of Forestry and Fire Protection’s fire hazard map for the Local Responsibility Area (LRA), the Project Site is not within a Very High Fire Hazard Severity Zone (CAL FIRE, 2008). The City updated the Local Hazard Mitigation Plan prepared by the Office of Emergency Management in 2018. The purpose of the Hazard Mitigation Plan (HMP) is to demonstrate the plan for reducing and/or eliminating risk in the City. The HMP process encourages communities to develop goals and projects that will reduce risk and build a more disaster resilient community by analyzing potential hazards. Construction of the Project would be generally confined to the Project Site and would not physically impair access to the Site or Project area. During both construction and long-term operation, the Project would be required to maintain adequate emergency access for emergency vehicles as required by the City and OFD. Because the Project is required to comply with all applicable City codes and is not located within a Very High Fire Hazard Severity Zone (VHFHSZ), any emergency evacuation or emergency response plan impacts would be reduced to a less than significant level. Therefore, impacts are less than significant. (DEIR, p. 5-5-11)

### **3.19.2 THRESHOLD B**

**Impact Statement:** Due to slope, prevailing winds, and other factors, the Project would not exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

### **Findings**

Potential impacts of the Project related to Threshold b is discussed Section 5.4.8 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold b; therefore, no mitigation is required.

### **Substantial Evidence**

As demonstrated above, the Project Site is not in or near an SRA or LRA or lands classified as VHFHSZ. Implementation of the Project would not add wildland vegetation to the Project Site or change site topography (such as adding large slopes) so as to exacerbate wildfire spread. Adjacent areas to the Project Site are also urbanized; therefore, there are no wildlands adjacent to the Site that may expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to slope and prevailing winds. Therefore, no impacts are anticipated. (DEIR, p. 5-5-11)

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### 3.19.3 THRESHOLD C

**Impact Statement:** The Project would not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.

#### Findings

Potential impacts of the Project related to Threshold c is discussed Section 5.4.8 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold c; therefore, no mitigation is required.

#### Substantial Evidence

The Project would not require the installation of infrastructure that would exacerbate fire risk. The Project would connect to the existing Ontario Municipal Utilities Company (OMUC) 12-inch water main on East Airport Drive. Sanitary sewer service to the Project Site would be provided by Inland Empire Utilities Agency (IEUA). Sewer would be accommodated via proposed 6-inch sewer line that would extend from the southwestern corners of the building to a proposed 8-inch sewer main on East Airport Drive. The proposed 8-inch sewer main would connect to an existing 8-inch sewer main on East Airport Drive that ends approximately at the western boundary of the Project Site. Although the Project would require the installation of utility infrastructure connection, the construction of these improvements is inherent to the Project’s construction phase and impacts associated with the Project construction phase are evaluated throughout the DEIR. In addition to the Project’s utility infrastructure, the Project would result in the installation of on-site fire hydrants, that are designed in accordance with the OFD standards. The internal waterlines are anticipated to supply sufficient fire flows and pressure to meet the demands required for on-site fire hydrants. Therefore, the proposed connections to existing infrastructure would not be anticipated to exacerbate fire risk on or off-site or result in temporary or ongoing impacts to the environment. Impacts would be less than significant. (DEIR, p. 5-5-12)

### 3.19.4 THRESHOLD D

**Impact Statement:** The Project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

#### Findings

Potential impacts of the Project related to Threshold d is discussed Section 5.4.8 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Threshold d; therefore, no mitigation is required.

#### Substantial Evidence

As discussed above, the Project Site is not located within a landslide zone (DOC, 2021) or in a FEMA flood zone (FEMA, 2016). Regardless of the landslide susceptibility, the Project would be required by the California Building Code (CBC) and City’s Building Code to comply with the recommendations

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identified in the Project’s Preliminary Geotechnical Investigation, which would ensure that the Project is engineered and constructed to maximize stability and preclude safety hazards to on-site areas. The implementation of the Project would not increase the risk of landslides after a wildfire compared to existing conditions. Impacts would be less than significant. Moreover, the Project would result in minor changes to the existing drainage patterns of the Project Site. However, such changes would not increase the rate or amount of surface runoff in a manner which would result in flooding or result in substantial erosion or siltation on- or off-site. The Project would replace the existing developed Site with a single industrial building and would not add wildland vegetation that would not readily transmit wildfire. Therefore, the Project would reduce the risk of wildfire spread. In the event that wildfire occurs in the Project vicinity, the Project would not result in an increased risk of downslope or downstream flooding because it is within an area of minimal flooding and Project runoff would be adequately conveyed by the existing storm drain infrastructure. Therefore, the implementation of the Project would not increase the risk of downslope or downstream flooding. Impacts would be less than significant. (DEIR, p. 5-5-12)

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### 4.0 ENVIRONMENTAL IMPACTS MITIGATED TO A LEVEL OF LESS-THAN-SIGNIFICANT

#### 4.1 CULTURAL RESOURCES

##### 4.1.1 THRESHOLD B

**Impact Statement:** The Project has the potential to cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5.

**Findings**

Potential impacts of the Project related to Threshold b are discussed in detail in Section 4.3.4 of the DEIR. A potential exists for ground disturbing activities to unearth previously unknown archaeological resources and result in a potentially significant impact. The Project is required to comply with Mitigation Measures MM 4.3-1 through MM 4.3-3, which would reduce impacts to less than significant. The Planning Commission has determined that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the EIR.

**Substantial Evidence**

BFSA conducted a cultural resources record search of the Project Site and one-half mile radius around the Project Site. The results of this records search indicate that no pre/protohistoric cultural resources are located on or within a one-half mile of the Project Site. Additionally, no pre/protohistoric resources were observed on the Project Site. Therefore, implementation of the Project would not cause a substantial adverse change in the significance of a known prehistoric archaeological resource pursuant to CEQA Guidelines Section 15064.5. Given the lack of any previously identified pre/protohistoric sites within or near the property and the magnitude of ground disturbances on the Project Site over the previous 47 years including the presence of subsurface septic systems, there is little potential for any pre/protohistoric resources to be present or disturbed by the proposed development. Notwithstanding, excavations on portions of the Project Site would occur within previously undisturbed soils that have the potential to contain pre/protohistoric archaeological resources. If any pre/protohistoric cultural resources are unearthed during Project construction that meet the definition of a significant archaeological resource pursuant to CEQA Guidelines Section 15064.5 and are disturbed/damaged by Project construction activities, impacts to those pre/protohistoric cultural resources would be significant. Based on the tribal consultation process conducted under AB 52, mitigation is presented in Subsection 4.3.7 consisting of monitoring and treatment procedures for any discovered resources that would lessen potential impacts to below a level of significance. Refer to Section 4.11, *Tribal Cultural Resources*, for details on the tribal consultation process. (DEIR, p. 4.3-8)

MM 4.3-1      Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities:

- a.            The project applicant/lead agency shall retain a Native American Monitor from or approved by the Gabrieleño Band of Mission Indians – Kizh Nation. The

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monitor shall be retained prior to the commencement of any “ground disturbing activity” for the subject project at all project locations (i.e., both onsite and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). “Ground-disturbing activity” shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching<sup>1</sup>

- b. A copy of the executed monitoring agreement shall be submitted to the lead agency prior to the earlier of the commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground disturbing activity.
- c. The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or “TCR”), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the project applicant/lead agency upon written request to the Tribe.
- d. On-site tribal monitoring shall conclude upon the latter of the following (1) written confirmation to the Kizh from a designated point of contact for the project applicant/lead agency that all ground-disturbing activities and phases that may involve ground disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Kizh to the project applicant/lead agency that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact Kizh TCRs.
- e. Upon discovery of any TCRs, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and shall not resume until the discovered TCR has been fully assessed by the Kizh monitor and/or Kizh archaeologist. The Kizh will recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate, in the Tribe’s sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural and/or historic purposes.

### MM 4.3-2 Unanticipated Discovery of Human Remains and Associated Funerary Objects:

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<sup>1</sup> Tribal monitoring shall cease once all ground disturbance activities have been completed with respect to the property or portion thereof. Example: Once excavation, grading, trenching, etc. have occurred tribal monitoring shall cease.

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- a. Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute.
- b. If Native American human remains and/or grave goods discovered or recognized on the project site, then all construction activities shall immediately cease. Health and Safety Code Section 7050.5 dictates that any discoveries of human skeletal material shall be immediately reported to the County Coroner and all ground disturbing activities shall immediately halt and shall remain halted until the coroner has determined the nature of the remains. If the coroner recognizes the human remains to be those of a Native American or has reason to believe they are Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission, and Public Resources Code Section 5097.98 shall be followed.
- c. Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2).
- d. Construction activities may resume in other parts of the project site at a minimum of 200 feet away from discovered human remains and/or burial goods, if the Kizh determines in its sole discretion that resuming construction activities at that distance is acceptable and provides the project manager express consent of that determination (along with any other mitigation measures the Kizh monitor and/or archaeologist deems necessary). (CEQA Guidelines Section 15064.5(f))
- e. Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods. Any historic archaeological material that is not Native American in origin (non-TCR) shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, it shall be offered to a local school or historical society in the area for educational purposes.
- f. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.

### MM 4.3-3 Procedures for Burials and Funerary Remains:

- a. As the Most Likely Descendant (“MLD”), the Koo-nas-gna Burial Policy shall be implemented. To the Tribe, the term “human remains” encompasses more



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than human bones. In ancient as well as historic times, Tribal Traditions included, but were not limited to, the preparation of the soil for burial, the burial of funerary objects with the deceased, and the ceremonial burning of human remains.

- b. If the discovery of human remains includes four or more burials, the discovery location shall be treated as a cemetery and a separate treatment plan shall be created.
- c. The prepared soil and cremation soils are to be treated in the same manner as bone fragments that remain intact. Associated funerary objects are objects that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later; other items made exclusively for burial purposes or to contain human remains can also be considered as associated funerary objects. Cremations will either be removed in bulk or by means as necessary to ensure complete recovery of all sacred materials.
- d. In the case where discovered human remains cannot be fully documented and recovered on the same day, the remains will be covered with muslin cloth and a steel plate that can be moved by heavy equipment placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24-hour guard should be posted outside of working hours. The Tribe will make every effort to recommend diverting the project and keeping the remains in situ and protected. If the project cannot be diverted, it may be determined that burials will be removed.
- e. In the event preservation in place is not possible despite good faith efforts by the project applicant/developer and/or landowner, before ground-disturbing activities may resume on the project site, the landowner shall arrange a designated site location within the footprint of the project for the respectful reburial of the human remains and/or ceremonial objects.
- f. Each occurrence of human remains and associated funerary objects will be stored using opaque cloth bags. All human remains, funerary objects, sacred objects and objects of cultural patrimony will be removed to a secure container on site if possible. These items should be retained and reburied within six months of recovery. The site of reburial/repatriation shall be on the project site but at a location agreed upon between the Tribe and the landowner at a site to be protected in perpetuity. There shall be no publicity regarding any cultural materials recovered.
- g. The Tribe will work closely with the project’s qualified archaeologist to ensure that the excavation is treated carefully, ethically and respectfully. If data

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recovery is approved by the Tribe, documentation shall be prepared and shall include (at a minimum) detailed descriptive notes and sketches. All data recovery data recovery-related forms of documentation shall be approved in advance by the Tribe. If any data recovery is performed, once complete, a final report shall be submitted to the Tribe and the NAHC. The Tribe does NOT authorize any scientific study or the utilization of any invasive and/or destructive diagnostics on human remains.

Implementation of MM 4.3-1 through MM 4.3-3 would ensure the proper identification and subsequent treatment of any significant archaeological resources that may be encountered during ground-disturbing activities associated with Project construction. With implementation of the required mitigation, the Project’s potential impacts to important archaeological resources would be reduced to less-than-significant. Cumulatively considerable impacts would likewise be reduced to less-than-significant.

### **4.2 GEOLOGY AND SOILS**

#### **4.2.1 THRESHOLD F**

**Impact Statement:** The Project has the potential to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

##### **Findings**

Potential impacts of the Project related to Threshold f are discussed in detail in Section 4.5.4. of the DEIR The Project site contains sediment with a high paleontological sensitivity. Ground disturbing activities have the potential to unearth previously unknown paleontological and/or unique geologic features. The Project is required to comply with Mitigation Measures MMs 4.5-1 through 4.5-4, which would reduce impacts to less than significant. The Planning Commission has determined that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the DEIR.

##### **Substantial Evidence**

The Project Site is underlain by Young Eolian Deposits (Qye) and Very Young Alluvial Fan Deposits (Qf). Qye are wind-deposited Holocene sediments consisting of silt and fine- to medium-grained sand which are generally about 10 feet thick and are underlain by alluvial fan deposits. Qf are Late Holocene and consist predominantly of sand, gravel, cobbles, and boulders that form the active and recently active portions of the fan. These deposits are generally unconsolidated to slightly consolidated, and where they have not been graded, they have a network of braided channels on the surface (Ontario, 2022b, p. 5.7-5 through 5.7-7). The possibility of finding additional paleontological resources within City boundaries is moderate to high. However, geologic maps indicate that the Project Site is situated on surface exposures of recent alluvium. These sediments have low potential to yield fossil resources or to contain significant nonrenewable paleontological resources. However, these recent sediments overlie older Pleistocene sediments with high potential to contain paleontological resources. (Ontario, 2022b, p. 5.7-17) In the event that the Project’s construction activities encroach into previously

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undisturbed older alluvium deposits, the Project could result in impacts to important paleontological resources if such resources are unearthened and not properly treated. Therefore, the Project’s potential to directly or indirectly destroy a unique paleontological resource buried beneath the ground surface is determined to be a potentially significant impact and mitigation is required. (DEIR, p. 4.5-12)

MM 4.5-1 Prior to the issuance of a grading permit, the Project Applicant shall provide evidence to the City of Ontario that a qualified paleontologist (“paleontologist”) has been retained by the Project Applicant or contractor to conduct monitoring of excavation activities in olde alluvium soils and has the authority to halt and redirect earthmoving activities in the event that suspected paleontological resources are unearthened.

MM 4.5-2 The paleontologist shall conduct full-time monitoring during grading and excavation operations in undisturbed Holocene and late Pleistocene old alluvial fan deposits starting at a depth of five (5) feet below the existing ground surface. The paleontologist shall be equipped to salvage fossils if they are unearthened to avoid construction delays and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The paleontologist shall be empowered to temporarily halt or divert equipment to allow for the removal of abundant and large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or if present, are determined upon exposure and examination by the paleontologist to have a low potential to contain or yield fossil resources.

MM 4.5-3 Recovered specimens shall be properly prepared to a point of identification and permanent preservation, including screen washing sediments to recover small invertebrates and vertebrates, if necessary. Identification and curation of specimens into the collections of the Division of Geological Sciences, San Bernardino County Museum, shall be required for discoveries of significance as determined by the paleontological monitor.

MM 4.5-4 A final monitoring and mitigation report of findings and significance shall be prepared, including lists of all fossils recovered, if any, and necessary maps and graphics to accurately record the original location of the specimens. The report shall be submitted to the City of Ontario prior to issuance of the first occupancy permit.

MMs 4.5-1 through 4.5-4 would ensure the proper identification and subsequent treatment of any paleontological resources that may be encountered during ground-disturbing activities associated with implementation of the proposed Project. Therefore, with implementation of MMs 4.5-1 through 4.5-4, the Project’s potential impact to paleontological resources would be reduced to less-than-significant.

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## 4.3 HAZARDS AND HAZARDOUS MATERIALS

### 4.3.1 THRESHOLDS A AND B

**Impact Statement:** The Project would not create a significant hazard to the public or the environment through the routine transport, use, disposal of hazardous materials or reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

#### Findings

Potential impacts of the Project related to Thresholds a and b are discussed in detail in Section 4.7.5 of the DEIR. This Planning Commission finds that the development of the proposed Project will not result in significant impacts related to Thresholds a and b; therefore, no mitigation is required.

#### Substantial Evidence

Implementation of the Project would require demolition and removal of all existing structures and improvements on the Project Site, as well as the removal of all materials stored on the Site, and would result in the construction and long-term operation of one warehouse distribution building on the Site. In the event any hazards or hazardous materials were to be present on the Project Site or any hazardous materials were to be used or stored on the Project Site during construction or long-term operation, the Project would have the potential to expose workers on-site, the public, and/or the environment to a substantial hazard. The analysis below evaluates the potential for the Project to result in a substantial hazard to people or the environment during any stage of the Project.

#### **A. Impact Analysis for Existing Site Conditions**

##### 1. *Soil Vapor*

In March 2022, Farallon conducted soil and soil vapor sampling at the Site to assess former UST areas and septic systems, and the new building footprint for the potential for vapor intrusion issues. Results showed that no total petroleum hydrocarbons (TPH) or volatile organic compounds (VOCs) were detected exceeding laboratory detection limits in the soil samples collected from the Project Site. Low concentrations of naturally occurring metals including barium, cadmium, cobalt, chromium, copper, nickel, lead, vanadium, and zinc were detected in two soil samples submitted for analysis; and these concentrations were considerably less than screening levels. (Farallon, 2022, pp. 10-3)

Based on the sampling results, tetrachloroethylene (PCE) has been documented in soil vapor in the vicinity of Building B at concentrations exceeding screening levels, and PCE is also present in central and eastern portions of the Site in shallow zones at concentrations less than calculated screening levels. (Farallon, 2022, pp. 10-4) Therefore, PCE impacts potentially associated with the use and storage of hazardous materials at Building B could contribute to vapor intrusion conditions on the Project Site and impacts would be potentially significant.

##### 2. *Building Materials*

The use of ACMs (a known carcinogen) and lead paint (a known toxin) was common in building construction prior to 1978. Because the Project Site contains structures known to be constructed before

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1978, there is potential for ACMs and surfaces covered with lead paint to be present on the Project Site.

Asbestos is a carcinogen and is categorized as a hazardous air pollutant by the federal EPA. Federal asbestos requirements are found in National Emission Standards for Hazardous Air Pollutants (NESHAP) within the CFR Title 40, Part 61, Subpart M, and are enforced in the Project area by the SCAQMD via Rule 1403. Rule 1403 establishes survey requirements, notification, and work practice requirements to prevent asbestos emissions from emanating during building renovation and demolition activities. Because ACMs are present in the existing construction debris and/or structures located on the property, then Rule 1403 requires notification of the SCAQMD prior to commencing any demolition or renovation activities. Rule 1403 also sets forth specific procedures for the removal of asbestos, and requires that an on-site representative trained in the requirements of Rule 1403 be present during the stripping, removing, handling, or disturbing of ACM. Mandatory compliance with the provisions of Rule 1403 would ensure that construction-related grading, clearing and demolition activities do not expose construction workers or nearby sensitive receptors to significant health risks associated with ACMs. Because the Project’s demolition and construction contractors would be required to comply with AQMD Rule 1403 during demolition activities, impacts due to asbestos would be less than significant.

During demolition of the existing buildings on-site, there also is a potential to expose construction workers to health hazards associated with lead-based paint (LBP). The Project’s demolition and construction contractors would be required to comply with CCR Title 17, Division 1, Chapter 8, which includes requirements such as employer provided training, air monitoring, protective clothing, respirators, and hand washing facilities. Mandatory compliance with the requirements of CCR Title 17, Division 1, Chapter 8 would ensure that construction workers and the public are not exposed to significant LBP health hazards during demolition and/or during transport of demolition waste to an appropriate disposal facility, and would ensure that impacts related to LBP remain less than significant.

### **B. Impact Analysis for Temporary Construction-Related Activities**

Heavy equipment (e.g., dozers, excavators, tractors) would be operated on the Project Site during construction. This heavy equipment likely would be fueled and maintained by petroleum-based substances such as diesel fuel, gasoline, oil, and hydraulic fluid, which are considered hazardous if improperly stored or handled. In addition, materials such as paints, adhesives, solvents, and other substances typically used in building construction would be located on the Project Site during construction. Improper use, storage, or transportation of hazardous materials can result in accidental releases or spills, potentially posing health risks to workers, the public, and the environment. This is a standard risk on all construction sites, and there would be no greater risk for improper handling, transportation, or spills associated with the Project than would occur on any other similar construction site. Construction contractors would be required to comply with all applicable federal, State, and local laws and regulations regarding the transport, use, and storage of hazardous construction-related materials, including but not limited requirements imposed by the EPA, DTSC, and the Santa Ana RWQCB. With mandatory compliance with applicable hazardous materials regulations, the Project would not create significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials during the construction phase, nor would the Project increase the

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potential for accident conditions which could result in the release of hazardous materials into the environment. A less-than-significant impact would occur.

### ***C. Impact Analysis for Long-Term Operations***

The future building occupant(s) for the Project Site are not yet identified. However, the Project is designed to house warehouse distribution occupants and it is possible that hazardous materials could be used during the course of a future building user’s daily operations. State and federal Community-Right-to-Know laws allow the public access to information about the amounts and types of chemicals in use at local businesses. Laws also are in place that requires businesses to plan and prepare for possible chemical emergencies. Any business that occupies the warehouse building on the Project Site and that handles hazardous materials (as defined in Section 25500 of California Health and Safety Code, Division 20, Chapter 6.95) will require a permit from the San Bernardino County Fire Department Hazardous Materials Division in order to register the business as a hazardous materials handler. Such businesses also are required to comply with California’s Hazardous Materials Release Response Plans and Inventory Law, which requires immediate reporting to the County of San Bernardino Fire Department and the State Office of Emergency Services regarding any release or threatened release of a hazardous material, regardless of the amount handled by the business, and to prepare a Hazardous Materials Business Emergency Plan (HMBEP). An HMBEP is a written set of procedures and information created to help minimize the effects and extent of a release or threatened release of a hazardous material. With mandatory regulatory compliance, the Project would not pose a significant hazard to the public or the environment through the routine transport, use, storage, emission, or disposal of hazardous materials, nor would the Project increase the potential for accident conditions which could result in the release of hazardous materials into the environment. Based on the foregoing information, potential hazardous materials impacts associated with long-term operation of the Project are regarded as less than significant. (DEIR, p. 4.7-13 – 4.7-16)

MM 4.7-1      Prior to the issuance of a grading permit, the Project Applicant shall prepare a Soil Management Plan (SMP). The SMP shall include explicit instructions for the appropriate handling, storage, and disposal of any known or potentially impacted soil during soil moving activities. The general contractor will be required to follow the requirements of the SMP and stop work to make notification to the environmental team if any potential impacts are observed at any time the environmental team is not already on-site. The SMP also requires air monitoring activities to monitor the air downwind of the Project Site and appropriate Health and Safety Plans that will be employed by site workers. The SMP shall identify specific requirements intended to protect human health when soil in certain areas of known or suspected impacts are disturbed for any reason, including, without limitation, as a result of demolition, utility installation/repair, soil excavation, drilling, grading/filling activities, stockpile generation, soil management, loading, and transportation. Requirements of the SMP include:

- a.      Health and Safety Plan (HASP): A HASP will be prepared and in effect for all activities associated with the SMP and other activities at the Project Site.

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Contractors working onsite are expected to be operating under their own health and safety plans.

- b. **Environmental Monitoring:** In accordance with SCAQMD Rules, air monitoring will be necessary in areas where potential PCE contaminated soil are to be disturbed. Air monitoring for dust may also be required in other areas. An air monitoring/health and safety professional will be present during relevant activities and responsibilities will include recording monitoring data on field sheets, which will be kept as part of Project documentation. c. **Soil Monitoring:** Soils impacted by PCE that are encountered during site redevelopment will be characterized and documented. The monitoring and sampling activities to be performed include:
- Visual observation performed to detect areas of soil that may be impacted by PCE or other non-VOC hazardous materials, if encountered.
  - Screening for PCEs using field instruments to document new or previously undetected sources of PCEs.
  - Soil sampling and chemical testing performed to evaluate concentrations of PCE.
- d. **Proper Soil Handling:** If impacted soil is encountered, the area will be delineated as necessary with cones, caution tape, stakes, chalk, or flagging, and the area will not be disturbed further until an environmental professional is onsite for observation and determination of whether testing and/or excavation work is required. Stockpile staging areas will be delineated prior to the start of excavation. All excavations will conform to applicable regulations, including Cal/OSHA Construction Safety Orders. The specific equipment, means, and methods to be utilized for soil removal, handling, and disposition will be selected based on the nature of the work to be conducted and its location on the site. If excavation is conducted during the rainy season (October through April), provisions will need to be made to prevent offsite migration of sediment in runoff.
- e. **Fugitive Dust and Vapor Control:** Appropriate procedures will be implemented to control the generation of airborne dust by soil removal activities, including, but not limited to, the use of water as a dust suppressant or stopping activities that have the potential to generate fugitive dust in the event wind conditions change creating an uncontrollable condition.
- f. **Excavation and Stockpiling:** Impacted soil that is excavated and not immediately removed from the site will be stockpiled onsite and covered with plastic sheeting to control dust and minimize exposure to precipitation and wind. If a stockpile remains onsite during the rainy season, a perimeter

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sediment barrier, constructed of material, such as straw bales or fiber roll, will also be installed. The stockpiles will be inspected biweekly at a minimum. During stockpile removal, only the working face of the stockpile will be uncovered. If the stockpiled impacted soil is to be transported offsite for disposal or recycling, the soil will be profiled for waste characteristics. Soil samples will be analyzed for parameters required by the disposal/recycling facility.

- g. Responding to Unknown Conditions: If previously unknown impacted soil is suspected (based on visual staining, odors, photo ionization detector readings, or other observations), the area will be delineated and construction activity will cease in this area, and sampling of the unknown material will occur using USEPA methodology. Analysis will be conducted for TPH, metals, and/or VOCs, as appropriate. Analytical results will be compared to applicable regulatory screening levels. Based on this comparison, a determination will be made regarding soil disposition (reuse on-site, off-site transport, and disposal/recycling, etc.). Additionally, if any UST or other subsurface features are encountered, a similar approach will be taken, and appropriate permitting, as necessary, will be obtained for the removal of the feature(s). Any permitted removals will be conducted with appropriate regulatory oversight, documentation, and reporting.
- h. Imported fill: As appropriate, offsite soils brought to the site for use as backfill (import fill), if necessary, will be tested in general conformance with the DTSC Information Advisory Clean Imported Fill Material document.
- i. Post-construction Requirements: If contaminated soil is left in place, the location of this soil will be surveyed or recorded by use of geographic positioning system equipment. Following the completion of construction, excavation, and disposition activities, a summary report will be prepared. The report will include a summary of activities, locations of soil sources and final disposition of contaminated soil, and estimated quantities of materials. Additionally, removal of any USTs or other subsurface features, if encountered, will be conducted under appropriate permits (if any) and documented in applicable reports for submittal to the Ontario Fire Department, or other regulatory agency, as appropriate.

Mitigation measure MM 4.7-1 would result in the preparation of a SMP for the Project. The SMP identifies requirements intended to protect human health when soil in certain areas of known or suspected areas are disturbed for any reason, including, without limitation, as a result of demolition, utility installation/repair, soil excavation, drilling, grading/filling activities, stockpile generation, soil management, loading, and transportation. Requirements of the SMP include protocols for the HASP, environmental monitoring, proper soil handling (if impacted soil is encountered), fugitive dust and vapor control, excavation and stockpiling, soil monitoring, soil monitoring, responding to unknown



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conditions, imported fill, and postconstruction requirements. With the implementation of mitigation measure MM 4.7-1, the risk of exposure of hazardous materials to the workers and the public through the routine transport, use, or disposal of contaminated or potentially contaminated soils or accident conditions would be less than significant.

### 4.4 TRIBAL CULTURAL RESOURCES

#### 4.4.1 THRESHOLD A

**Impact Statement:** The Project has the potential to cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- a. *Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources code Section 5024.1(k), or*
- b. *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of the Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.*

#### Finding

Potential impacts of the Project related to Threshold a are discussed in detail in Section 4.11.5 of the DEIR. Due to the Project Site’s location in an area where Native American tribes are known to have a cultural affiliation, there is the possibility that pre/protohistoric archaeological resources, including tribal cultural resources, could be encountered during ground-disturbing construction activities. The Project is required to comply with Mitigation Measures MM 4.3-1 through 4.3-3, which would reduce impacts to less than significant. The Planning Commission has determined that changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the EIR.

#### Substantial Evidence

No prehistoric resource sites, features, places, or landscapes were identified on the Project Site that are either listed or eligible for listing in the California Register of Historic Places. No resources were identified on the Project Site that meet any of the four criteria listed above to be eligible for the California Register and no pre/protohistoric resource sites or isolates are known to exist on the Project Site. (BFSa, 2022) Furthermore, no substantial evidence was presented to or found by the City that led to the identification of any resources on the Project Site that in the City’s discretion had the potential to be considered a tribal cultural resource.

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As part of the AB 52 consultation process required by State law, the City sent notification of the Project to Native American tribes with possible traditional or cultural affiliation to the Project area. The City consulted with each tribe that requested consultation. During the course of the tribal consultation process, tribal monitoring was requested during the Project’s ground-disturbing construction activities. Due to the Project Site’s location in an area where Native American tribes are known to have a cultural affiliation, there is the possibility that pre/protohistoric archaeological resources, including tribal cultural resources, could be encountered during ground-disturbing construction activities. In the event that a tribal cultural resource, as defined in Public Resources Code Section 21074, were to be found on the Project Site during construction – and not properly identified and treated – a significant impact would occur. Mitigation is required.

As discussed under EIR Subsection 4.3, the Project Site does not contain a known cemetery site and human remains have not been previously discovered on the Site. Mandatory compliance with State law (California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98) would ensure that, in the unlikely event that human remains are discovered during Project construction, the remains would be identified in accordance with proper protocols and the remains would be treated or disposed with appropriate dignity. Accordingly, the Project would not result in a substantial adverse effect to tribal cultural resources associated with human remains. (DEIR, pp. 4.11-4 – 4.11-5)

Refer to Mitigation Measures MM 4.3-1 and MM 4.3-3, above.

Implementation of MMs 4.3-1 through 4.3-3 would ensure the proper identification and subsequent treatment of any significant tribal cultural resources that may be encountered during ground-disturbing activities associated with Project development. With implementation of the required mitigation, the Project’s potential impact to significant tribal cultural resources would be reduced to less-than-significant.

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### 5.0 ENVIRONMENTAL IMPACTS THAT REMAIN SIGNIFICANT AND UNAVOIDABLE AFTER MITIGATION

The Ontario Planning Commission finds the project would result in significant and unavoidable impacts in the following impact categories after implementation of all feasible mitigation measures: Transportation. In accordance with CEQA Guidelines Section 15092(b)(2), the Planning Commission of the City of Ontario cannot approve the project unless it first finds (1) under Public Resources Code Section 21081(a)(3), and CEQA Guidelines Section 15091(a)(3), that specific economic, legal, social technological, or other considerations, including provisions of employment opportunities to highly trained workers, make infeasible the mitigation measures or project alternatives identified in the EIR; and (2) under CEQA Guidelines section 15092(b), that the remaining significant effects are acceptable due to overriding concerns described in the CEQA Guidelines Section 15093 and, therefore, a statement of overriding considerations has been prepared.

#### 5.1 TRANSPORTATION

##### 5.1.1 THRESHOLD B

**Impact Statement:** The Project would conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).

**Findings**

Potential impacts of the Project related to Threshold a are discussed in detail in Section 4.11.6 of the DEIR. The Project is required to implement Mitigation Measure 4.10-1, which would reduce VMT impacts to the extent feasible.

**Substantial Evidence**

Changes to State CEQA Guidelines were adopted in December 2018, which requires all lead agencies to adopt vehicle miles traveled (VMT) as a replacement for automobile delay-based level of service (LOS) as the new measurement for identifying transportation impacts for land use projects. This statewide mandate took effect on July 1, 2020. To aid in this transition, the Governor’s Office of Planning and Research (OPR) released a Technical Advisory on Evaluating Transportation Impacts in CEQA. Based on the Technical Advisory, the City of Ontario has developed and adopted their own VMT methodologies and thresholds, which were adopted by City Council in June 2020. City Guidelines identify projects that meet certain VMT screening criteria may be presumed to result in a less than significant transportation impact. The City of Ontario utilizes the San Bernardino County Transportation Authority (SBCTA) VMT Screening Tool. The Screening Tool allows users to select an assessor’s parcel number (APN) to determine if a project’s location meets one or more of the screening thresholds for land use projects identified in the City Guidelines. The City Guidelines lists the following VMT screening criteria:

- Transit Priority Area (TPA) Screening
- Low VMT Area Screening

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- Project Type Screening

A land use project need only meet one of the above screening criteria to result in a less than significant impact.

### **A. TPA Screening**

Consistent with guidance identified in the City Guidelines, projects located within a Transit Priority Area (TPA) (i.e., within ½ mile of an existing “major transit stop” or an existing stop along a “high quality transit corridor”) may be presumed to have a less than significant impact absent substantial evidence to the contrary. However, the presumption may not be appropriate if a project:

- Has a Floor Area Ratio (FAR) of less than 0.75;
- Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking);
- Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization); or
- Replaces affordable residential units with a smaller number of moderate or high-income residential units.

The Screening Tool was utilized to locate the Project Site and its proximity to a TPA. The Project Site is not located within ½ mile of an existing major transit stop, or along a high-quality transit corridor. Therefore, the Project would not meet the TPA Screening threshold.

### **B. Low VMT Area Screening**

As noted in the Technical Advisory, “Residential and office projects that locate in areas with low VMT and that incorporate similar features (density, mix of uses, and transit accessibility) will tend to exhibit similarly low VMT.” The City Guidelines state that projects may be presumed to have a less than significant VMT impact if located in an already low VMT generating traffic analysis zones (TAZs) that generates a VMT per service population (SP) that does not exceed the Citywide average under General Plan Buildout condition VMT per service population. The Screening Tool uses the subregional San Bernardino Transportation Analysis Model (SBTAM) to measure VMT performance within individual TAZ’s within the region. The Project’s physical location based on parcel number is selected in the Screening Tool to determine the TAZ in which the Project will reside. The Project’s TAZs VMT per service population was compared to Citywide average buildout VMT per service population. The parcel containing the Project was selected and the Screening Tool was run for origin destination (OD) VMT per service population, and results showed the Project is not located within a low VMT generating zone. Therefore, the Project would not meet the Low VMT Area Screening threshold.

### **C. Project Type Screening**

The City Guidelines identify that local serving retail less than 50,000 square feet or other local serving essential services (e.g., day care centers, public schools, medical/dental office buildings, etc.) are presumed to have a less than significant impact absent substantial evidence to the contrary. The Project

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as intended does not contain any local serving uses. Additionally, the City Guidelines state that small projects generating fewer than 110 daily vehicle trips or less may be presumed to have a less than significant impact, subject to discretionary approval by the City. As shown in Table 4.10-1, the Project currently generates an average of 316 vehicle trips per day. Trips generated by the Project’s proposed land uses have been estimated based on trip generation rates collected by the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition, 2021. The Project is anticipated to generate 476 daily vehicle trip-ends per day. Therefore, the Project is anticipated to generate 160 net new average daily trips, exceeding the 110 daily vehicle trip threshold, and the Project would not meet the Project Type Screening threshold.

### **D. VMT Analysis**

As the Project was not found to meet any of the aforementioned VMT screening criteria, a project level VMT analysis (Technical Appendix J to the DEIR) was prepared to assess the Project’s potential impact to VMT. Consistent with City Guidelines and standard VMT calculation methods, total VMT is calculated from SBTAM’s OD trip matrices and then divided by a project’s service population to derive the VMT efficiency metric VMT per service population. Table 4.10-6, Total VMT, presents Project generated total VMT calculated as the total of passenger car, light-duty, medium-duty, and heavy-duty truck trips.

The City Guidelines have identified following recommended threshold: a significant impact would occur if the project VMT per Service Population exceeds the Citywide average for Service Population under General Plan Buildout Conditions. The Project’s baseline and buildout VMT per service population is calculated by dividing by the total VMT the service population or in this case the number of employees generated<sup>1</sup>. As shown in Table 4.10-7, Project VMT per Service Population, the City of Ontario has identified a VMT per SP significance threshold of 27.61, which is the City of Ontario’s General Plan Buildout with the TOP model. As shown below, the Project would exceed the City’s VMT per SP impact threshold for both the baseline and TOP buildout conditions (Urban Crossroads, 2023a). Therefore, impacts would be significant. (DEIR, pp. 4.10-11 – 4.10-14)

MM 4.10-1 Prior to the issuance of a certificate of occupancy, the building operator shall prepare and submit for approval to the City of Ontario Community Development Department a Transportation Demand Management Program (TDMP). The TDMP shall specify measures that the building operator will commit to implementing in an effort to reduce vehicle miles traveled for its on-site employees. The TDMP shall include provisions, incentives, and programs for employee ridesharing programs, carpools, vanpools, transit use, bike travel, avoidance of peak periods of traffic congestion, and on-site parking preferences for zero-emission vehicles, among other items that have reasonable potential of reducing employee reliance on single-occupant gas-powered vehicles during peak time travel periods (rush hours).

Transportation Demand Management Plan (TDMP) strategies in the form of commute trip reduction program measures were reviewed for the purpose of reducing Project related VMT impacts (i.e., commute trips). The feasibility and level of effectiveness of each trip reduction measure was determined based on the location of the Project Site and the Handbook for Analyzing Greenhouse Gas

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Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity (2021 Handbook). As the future building tenant(s) is not currently known for the Project, the effectiveness of commute trip reduction measures such as carpooling and vanpooling cannot be determined with certainty. In addition to specific tenancy considerations, locational context is also a major factor relevant to the potential application and effectiveness of TDMP measures. Given the Project Site’s location in an industrial area with no nearby transit routes, an incomplete sidewalk and bikeway system, and a lack of nearby residential areas that made walking or biking to work easy, the Project Site location is not favorable to reduce VMT per service population to below a level of significance.

Under the most favorable circumstances and ideal conditions a project can realize a maximum reduction of 45% in commute VMT through implementation of the trip reduction program measures listed below. However, ideal conditions are rarely realized as variables such as a project’s locational context limitation (i.e., non-urban areas). Additionally, to achieve ideal conditions a project must achieve one hundred percent employee participation and maximum employee eligibility, which are not generally expected. The proposed Project would require a minimum VMT per service population reduction of 25.58% to achieve a less than significant impact, which cannot be assured for the proposed Project. The 2021 Handbook lists the following possible trip reduction measures.

- T-5 – Implement Commute Trip Reduction Marketing (up to 4.0% reduction)
- T-8 – Provide Ridesharing Program (up to 8% reduction)
- T-9 – Implement Subsidized or Discounted Transit Program (up to 5.5% reduction)
- T-10 – Provide End-of-Trip Facilities (up to 4.4% reduction)
- T-11 – Provide Employer-Sponsored Vanpool (up to 20.4% reduction)
- T-12 – Price Workplace Parking (up to 20.0% reduction)
- T-13 – Implement Employee Parking Cash-Out (up to 12.0% reduction)

Mitigation measure MM 4.10-1 will reduce the Project’s VMT per service population by some percentage based on the level of participation achieved, but based on the above-described factors, it is not feasible to reduce VMT to below a level of significance. However, as the Project area and surrounding communities develop as envisioned under the City of Ontario General Plan (TOP), new residential, retail, and industrial development would be implemented. These actions could collectively alter transportation patterns, improve the region’s jobs/housing ratio, reduce VMT, and support implementation of new or alternative TDM measures. With the implementation of mitigation measure MM 4.10-1, VMT is expected to be reduced, but the Project’s impacts related to VMT would still be significant and unavoidable.

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### **6.0 CUMULATIVE IMPACTS**

The CEQA Guidelines define a “cumulative impact” as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts” (CEQA Guidelines Section 15355). Regarding the Project’s potential to result in cumulative impacts, the City hereby finds as follows:

#### **6.1 AESTHETICS**

The Project’s effects to scenic views of the San Gabriel Mountains, if any, would be localized to the immediate Project Site area and would not extend beyond the public viewing areas that immediately about the Project Site (East Airport Drive). The views that would be affected only occur abutting the Project Site and the Project does not contain any off-site components that could adversely affect scenic views that occur elsewhere in the City. Furthermore, the Project’s impacts to local scenic views are inherently site specific and not influenced or exacerbated by effects to scenic views that may occur at other, off-site properties. Because of the site-specific nature of these impacts, there would be no direct or indirect connection to similar potential issues or cumulative effects to or from other properties pursuant to Threshold “a.”

As noted under the analysis of Threshold “b,” the Project Site is not located within close proximity to any designated State scenic routes and does not contain any scenic resources. Therefore, the Project has no potential contribute to a cumulatively significant impact to scenic resources within a designated scenic route corridor.

Under existing conditions, the area surrounding the Project Site is entirely developed with industrial land uses. No new or pending development projects are known to occur in the area surrounding the Project Site. Accordingly, the Project would not contribute to cumulatively considerable impacts to local visual quality. Notwithstanding, as with the Project, any re-development in the surrounding area would be subject to applicable development regulations and design standards, including, but not limited to the Ontario Development Code. Mandatory compliance to applicable development regulations and design standards would ensure that developments would incorporate high quality building materials, site design, and landscaping to preclude potential conflicts with applicable zoning and other regulations governing visual quality.

With respect to potential cumulative light and glare impacts, the Project would be required to comply with City’s Development Code, which sets standards for exterior lighting/fixtures. The restriction on unshielded light fixtures and “spill over” lighting enforced by these lighting regulations has the effect of minimizing light and glare that would affect daytime views and/or create sky glow. Additionally, development projects with artificial light sources in surrounding jurisdictions would be required to comply with the light reduction requirements applicable in their respective jurisdiction. Although cumulative development in the Project’s surrounding area is expected to introduce new sources of lighting and potentially reflective materials, the required compliance with the applicable legal standard and code requirements would ensure that future cumulative development does not introduce substantial sources of lighting or glare. As such, the Project would not contribute to cumulatively-considerable, adverse impacts to the existing daytime or nighttime views of the Project Site or its surroundings. (DEIR, pp. 4.1-12 – 4.1-13)

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### **6.2 AIR QUALITY**

Based on SCAQMD guidance, any exceedance of a regional or localized threshold for criteria pollutants also is considered to be a cumulatively-considerable effect, while air pollutant emissions that fall below applicable regional and/or localized thresholds are not considered cumulatively considerable. As discussed in the analysis under Threshold “b,” the criteria pollutant emissions from Project construction and operation would be far less than the SCAQMD regional thresholds of significance. Therefore, the Project’s emissions would not be considered cumulatively considerable. Furthermore, the Project would not conflict with the 2016 AQMP and is not considered cumulatively considerable.

As discussed under the analysis for Threshold “c,” all Project-related construction- and operational localized air pollutant emissions – including DPM – would not exceed the applicable SCAQMD thresholds of significance. According to the SCAQMD’s Mates V study and data visualization tool, which includes an emissions inventory of toxic air contaminants based on 2016-2018 data, the cancer risk in the Project Site’s zip code (91761) is 600 per million, which indicates that the air toxics cancer risk in this zip code was higher than 93.0% of the SCAQMD population at the time the data was collected (SCAQMD, 2021). As regulatory requirements have become more stringent, however, air quality has improved and health risks have decreased, despite an increase in the number of warehouses across the Inland Empire and the SCAB (Ramboll, 2023). Because the Project’s contribution to health risk would fall far below the SCAQMD’s threshold of significance, and the SCAQMD is the regulatory authority responsible for air quality in the SCAB in which the Project site is located, the Project’s contribution is not considered cumulatively-considerable.

As indicated in the analysis of Threshold “d,” above, there are no Project components that would expose a substantial number of sensitive receptors to objectionable odors. There are no known sources of offensive odors in the Project area. Because the Project’s construction and operation would not create substantial and objectionable odors and because there are no sources of objectionable odors in the areas immediately surrounding the Project Site, there is no potential for odors from the Project Site to commingle with odors from nearby development projects and expose nearby sensitive receptors to substantial, offensive odors. Accordingly, implementation of the Project would result in a less-than significant cumulative impact related to odors. (DEIR, pp. 4.2-36 – 4.2-37)

### **6.3 CULTURAL RESOURCES**

Record searches indicate the absence of significant historical sites and resources on the Project Site; therefore, implementation of the Project has no potential to contribute towards a significant cumulative impact to historical sites and/or resources.

The potential for Project construction to result in cumulatively-considerable impacts to prehistoric archaeological resources were also analyzed in conjunction with other projects located in the traditional use areas of Native American tribes that are affiliated to the Project Site. Development activities on the Project Site would not impact any known prehistoric archaeological resources and the likelihood of uncovering previously unknown prehistoric archaeological resources during Project construction are low due to the magnitude of surface and subsurface disturbance that has occurred on the Site to-date. Nonetheless, the remote potential exists for subsurface prehistoric archaeological resource that meet the CCR Section 15064.5 definition of a significant archaeological resource to be discovered



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beneath the surface of the Project Site during Project-related construction activities and on and beneath other development project sites in the region during construction activities. Accordingly, the Project has the potential to contribute to a significant cumulatively-considerable impact to prehistoric archaeological resources, if such resources are unearthed during Project construction, for which mitigation is required. As discussed below, with implementation of mitigation, cumulatively considerable impacts would be less than significant.

Mandatory compliance with the provisions of California Health and Safety Code Section 7050.5 as well as Public Resources Code Section 5097 et seq., would assure that all future development projects within the region treat human remains that may be uncovered during development activities in accordance with prescribed, respectful and appropriate practices, thereby avoiding significant cumulative impacts. (DEIR, pp. 4.3-9 – 4.3-10)

### **6.4 ENERGY**

The Project and other new development projects within the cumulative study area would be required to comply with all of the same applicable federal, State, and local regulatory measures aimed at reducing fossil fuel consumption and the conservation of energy. Accordingly, the Project would not cause or contribute to a significant cumulatively considerable impact related to conflicts with a State or local plan for renewable energy efficiency. (DEIR, p. 4.4-8)

### **6.5 GEOLOGY AND SOILS**

With the exception of erosion hazards, potential hazardous effects related to geologic and soil conditions addressed under Thresholds “a,” “c,” “d,” and “e” are unique to the Project Site, and inherently restricted to the specific property proposed for development. That is, issues including fault rupture, seismic ground shaking, liquefaction, landslides, and expansive soils would involve effects to (and not from) a proposed development project, are specific to conditions on the subject property, and are not influenced or exacerbated by the geologic and/or soil hazards that may occur on other, off-site properties. Further, as noted in the foregoing analysis, all potential Project-related direct and indirect impacts related to potential hazardous effects related to geologic and soil conditions would be precluded through mandatory conformance with the CBSC, Ontario Development Code, other standard regulatory requirements, and the site-specific geotechnical recommendations contained within the Project’s geotechnical investigation, which will be incorporated into the Project’s design via conditions of approval. Because of the site-specific nature of these potential hazards and the measures to address them, there would be no direct or indirect connection to similar potential issues or cumulative effects to or from other properties. As discussed under Threshold “b”, regulatory requirements mandate that the Project incorporate design measures during construction and long-term operation to ensure that significant erosion impacts do not occur. Other development projects in the vicinity of the Project Site would be required to comply with the same regulatory requirements as the Project to preclude substantial adverse water and wind erosion impacts. Because the Project and other projects within the cumulative study area would be subject to similar mandatory regulatory requirements to control erosion hazards during construction and longterm operation, cumulative impacts associated with wind and water erosion hazards would be less than significant. The Project’s potential to result in cumulative impacts to paleontological resources (Threshold “f”) is similar to that of other projects located in the region that are underlain by older alluvial soils. Because the older alluvial soils present on the Project

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Site contain high paleontological sensitivity and because this geologic layer is present throughout the City of Ontario and southern California, the potential to impact paleontological resources is a cumulatively. (DEIR, pp. 4.5-12 – 4.5-13)

### **6.6 GREENHOUSE GAS EMISSIONS**

GCC occurs as the result of global emissions of GHGs. An individual development project does not have the potential to result in direct and significant GCC-related effects in the absence of cumulative sources of GHGs. The CEQA Guidelines emphasize that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA’s requirements for cumulative impacts analysis (See CEQA Guidelines Section 15130[f]). Accordingly, the analysis provided in subsection 4.6.4 reflects a cumulative impact analysis of the effects related to the Project’s GHG emissions, which concludes that the Project would not exceed the applicable threshold of significance and that the Project would not conflict with an applicable GHG-reduction plans, policies, or regulations. (DEIR, pp. 4.6-24)

### **6.7 HAZARDOUS AND HAZARDOUS MATERIALS**

As discussed above under the responses to Thresholds “a” and “b,” the Project’s construction and operation would be required to comply with all applicable federal, state, and local regulations to ensure proper use, storage, and disposal of hazardous substances. Although the end user(s) of the Project Site are not presently known, if businesses that use or store hazardous materials occupy the Project, the business owners and operators would be required to comply with all applicable federal, state, and local regulations to ensure proper use, storage, and disposal of hazardous substances. Such uses also would be subject to additional review and permitting requirements by the San Bernardino County Fire Department. Similarly, any other developments in the area proposing the construction of uses with the potential for use, storage, or transport of hazardous materials also would be required to comply with applicable federal, State, and local regulations, and such uses would be subject to additional review and permits from their local oversight agency. Although there is on-site contamination present, compliance with mitigation measure MM 4.7-1 would ensure isolation of any impacts to the Project Site and would not have the ability to impact the surrounding area. Therefore, the potential for release of toxic substances or hazardous materials into the environment, either through accidents or due to routine transport, use, or disposal of such materials, would be reduced to a less-than-significant cumulative level. Accordingly, the Project’s potential to contribute to a cumulatively significant hazardous materials impact would be less than significant.

The Project Site is not located within one-quarter mile of a school; therefore, the Project has no potential effect on students in relation to the use, handling, and transport of hazardous materials and would have no impact.

As indicated under Threshold “d,” facilities in the site vicinity are not considered to be an REC to the Site. Because the Project Site is not classified as a hazardous materials site, there is no potential for the Project to contribute to, or exacerbate, adverse environmental effects resulting from other hazardous materials sites in the Project vicinity.

As discussed above under the response to Threshold “e,” the Project is not a noise-sensitive land use and would not be adversely affected by noise from operations at the ONT. In addition, the Project would not introduce any land use to the Project Site that would conflict with the ONT ALUCP. Therefore, the Project would not result in a safety hazard or excessive noise for people residing or

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working in the Project area and would not contribute to a cumulatively considerable impact associated with airport hazards. The Project Site does not contain any emergency facilities nor does it serve as an emergency evacuation route; thus, there is no potential for the Project to contribute to any cumulative impacts associated with an adopted emergency response plan or emergency evacuation plan.

As discussed above under Threshold “g,” the Project Site is not located within or in close proximity to areas identified as being subject to wildland fire hazards and would have no potential to contribute to adverse, cumulative wildland fire hazards. (DEIR, pp. 4.7-17 – 4.7-18)

### **6.8 HYDROLOGY AND WATER QUALITY**

The cumulative impact analysis considers construction and operation of the Project in conjunction with other development projects in the vicinity of the Project Site and projects located in the Santa Ana River Basin and Chino Groundwater Basin.

#### **A. Water Quality**

Project construction and the construction of other projects in the cumulative study area would have the potential to contribute waterborne pollution, including erosion and siltation, to the Santa Ana River Watershed. Pursuant to the requirements of the State Water Resources Control Board and the Santa Ana RWQCB, all construction projects that disturb 1 or more acres of land area are required to obtain coverage for construction activities under the State’s General Construction NPDES Permit. In order to obtain coverage, an effective Site-specific SWPPP is required to be developed and implemented. The SWPPP must identify potential on-site pollutants and identify an effective combination of erosion control and sediment control measures to reduce or eliminate discharge of pollutants to surface waters. In addition, the Project Applicant and all cumulative developments in the Santa Ana River Basin would be required to comply with the Santa Ana RWQCB’s Santa Ana River Basin Water Quality Control Program, which establishes water quality standards for ground and surface waters of the region. Compliance with these mandatory regulatory requirements, would ensure that development projects within the Santa Ana River watershed, including the proposed Project, would not contribute substantially to water quality impairments during construction. Operational activities on the Project Site would be required to comply with the Project’s WQMP to minimize the amount of waterborne pollution, including erosion and sediment, discharged from the Site. Other development projects within the watershed would similarly be required by law to prepare and implement Site-specific WQMPs to ensure that runoff does not substantially contribute to water quality violations. Accordingly, operation of the Project would not contribute to cumulatively considerable water quality effects.

#### **B. Groundwater Supplies and Management**

The Project incorporates design features that would allow surface runoff to infiltrate into the groundwater basin. Other development projects would similarly be required by applicable lead agencies to incorporate design features that facilitate percolation (e.g., through minimum landscaped/permeable area requirements, water quality/detention basins, infiltration basins). Also, as previously noted, implementation of the Project would not result in substantial adverse effects to local groundwater supplies or groundwater recharge. Thus, no component of the Project would obstruct with or prevent implementation of the management plan for the Chino Groundwater Basin, and other development projects within the Chino Groundwater Basin would be prohibited from any activity that would endanger the health and sustainability of the groundwater basin. Based on the lack of impacts

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to groundwater, the provision of design measures that would facilitate percolation, and compliance with applicable Chino Groundwater Basin management plans, cumulative development would not result in a considerable, adverse effect to local groundwater supplies.

### **C. Flooding**

Construction of the Project and other development projects within the Santa Ana River watershed would be required to comply with federal, State, and local regulations and applicable regional and local master drainage plans in order to mitigate flood hazards both on- and off-site. Compliance with federal, State, and local regulations and applicable drainage plans would require development sites to be protected from flooding during peak storm events (i.e., 100-year storm) and also would not allow development projects to expose downstream properties to increased flooding risks during peak storm events. In addition, future development proposals within the Santa Ana River Basin would be required to prepare hydrologic and hydraulic calculations, subject to review and approval by the responsible City Engineer, to demonstrate that substantial on- and/or off-site flood hazards would not occur. As discussed under the response to Threshold “c,” the Project is designed to ensure that runoff from the Project Site during peak storm events is reduced relative to existing conditions. Because the Project and all other developments throughout the Santa Ana River Basin, would need to comply with federal, State, and local regulations to ensure that stormwater discharges do not substantially exceed existing volumes or exceed the volume of available conveyance infrastructure, a substantial cumulative impact related to flood hazards would not occur.

Additionally, the Project Site is not located within a special flood hazard area or in an area subject to inundation. Accordingly, development on the Project Site would have no potential to impede or redirect flood flows and a cumulatively-considerable impact would not occur. (DEIR, pp. 4.8-17 – 4.8-18)

## **6.9 NOISE**

### **A. Construction Noise**

Construction activities associated with the proposed Project, especially activities involving heavy equipment, would create intermittent periods of noise when construction equipment is in operation and cause a short-term increase in ambient noise levels. As shown in Table 4.9-5, the peak noise level anticipated during construction activities are estimated to reach a maximum noise level of 38.6 dBA Leq at receiver R4 (represents the existing noise Hyatt Place Ontario/Rancho Cucamonga at 4760 Mills Circle, approximately 3,872 feet northwest of the Project Site) which does not exceed the construction noise threshold of 80 dBA Leq. Therefore, Project construction-related activities would result in less than significant noise impacts. Because the Project’s construction noise levels would be less than significant, construction noise would be temporary in nature, and the Project and other cumulative projects would not combine with Project-related construction; cumulative construction impacts would be less than significant.

### **B. Stationary Noise**

The analysis presented for Threshold “a” addresses the Project’s contribution of noise to existing cumulative noise sources (i.e., ambient noise) in the Project area. As previously shown in this Subsection, the Project’s noise contribution would not be perceptible to noise-sensitive receptors in the

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Project area during daytime or nighttime hours. The Project’s permanent stationary noise impacts would not be cumulatively-considerable.

### **C. Traffic Noise**

The analysis presented under Threshold “a” evaluates the Project’s traffic noise contribution along study area roadways. As summarized in that analysis, due to the low traffic volumes generated by the Project, the off-site traffic noise levels generated by the Project are considered less than significant, therefore, would not be cumulatively-considerable under near- or long-term conditions.

### **D. Groundborne Vibration and Noise**

During construction, the Project’s peak vibration impacts would occur during the grading phase when large pieces of equipment, like bulldozers, are operating on-site. (During the non-grading phases of Project construction, when smaller pieces of equipment are used on-site, the Project’s vibration would be minimal.) Vibration effects diminish rapidly from the source; therefore, the only reasonable sources of cumulative vibration in the vicinity of the Project Site could occur on properties abutting these sites. As described above, there are no known active or pending construction projects abutting the Project Site that would overlap with the Project’s proposed construction schedule. Accordingly, there is no potential for the Project to contribute to the exposure of persons to substantial temporary groundborne vibration or noise. Under long-term conditions, the Project would not include or require equipment or activities that would result in perceptible groundborne vibration beyond the Project Site. Trucks would travel to and from the Project Site along local roadways; however, vibration levels for heavy trucks operating at the posted speed limits on paved surfaces are not perceptible beyond the roadway. The Project would not cumulatively-contribute to the exposure of persons to excessive groundborne vibration or noise levels during long-term operation.

### **E. Airport Noise**

The Project would not involve the construction, operation, or use of any public airports or public use airports. There are no conditions associated with implementation of the Project that would contribute airport noise or exposure of additional people to unacceptable levels of airport noise. Accordingly, the Project would have no potential to cumulatively-contribute to impacts associated with noise from a public airport, public use airport, or private airstrip. Additionally, the Project Site and the immediately surrounding area are not subject to substantial airport- or air traffic-related noise. Accordingly, there is no potential for cumulative development to expose persons residing or working in the Project area to excessive airport-related noise levels. (DEIR, pp. 4.9-22 – 4.9-23)

## **6.10 TRANSPORTATION**

As described under the response to Threshold “a,” the Project would not conflict with an applicable program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities and, thus, would not cumulatively contribute to a conflict or obstruction with an applicable transportation-related program. The City Guidelines, consistent with OPR’s Technical Advisory states that cumulative impacts on VMT “... metrics such as VMT per capita or VMT per employee, i.e., metrics framed in terms of efficiency (as recommended below for use on residential and office projects), cannot be summed because they employ a denominator. A project that falls below an efficiency-based threshold that is aligned with long-term goals and relevant plans has

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no cumulative impact distinct from the project impact. Accordingly, a finding of a less than significant project impact would imply a less than significant cumulative impact and vice versa. This is similar to the analysis typically conducted for greenhouse gas emissions, air quality impacts, and impacts that utilize plan compliance as a threshold of significance.” Since the Project was found to have a significant and unavoidable impact at the project level, it is considered to be cumulatively-considerable and therefore to have a significant cumulative impact as well. The Project would not contribute to a significant cumulative impact under the topics discussed under Thresholds “c” and “d” because the Project would not cause or exacerbate existing transportation design safety concerns or adversely affect emergency access and there are no cumulative development projects adjacent to the Project Site that could contribute additive effects that could degrade motor vehicle or pedestrian safety or emergency vehicle access in proximity to the Project Site. (DEIR, p. 4.10-15)

### **6.11 TRIBAL CULTURAL RESOURCES**

The potential for Project construction to result in cumulatively-considerable impacts to tribal, religious, and cultural resources were analyzed in conjunction with other projects located in southwestern San Bernardino County and northwestern Riverside County that occur in the same tribal influence areas as the Project Site. The other development projects within these areas would have a similar potential to uncover tribal cultural resources during construction activities. Therefore, the potential for Project construction to impact tribal cultural resources is a cumulatively-considerable impact for which mitigation is required. (DEIR, p. 4.11-5)

### **6.12 UTILITIES AND SERVICE SYSTEMS**

This cumulative impact analysis considers development of the Project Site in conjunction with other development projects and planned development within the service area for the respective utility provides or the service area for specific facilities (e.g., wastewater treatment facilities). As with the Project, each individual related development project would require the construction of necessary infrastructure (water and wastewater lines, storm drain facilities, dry utilities, and others) to serve the project. Each individual development project is subject to review for utility capacity to avoid unanticipated interruption of service or inadequate supplies. Coordination with the utility providers would allow for the provision of utility services to the Project and other developments. The Project and other planned projects are subject to connection and service fees to offset increased demand and assist in facility expansion and service (at the time of need). Therefore, the Project impacts would not contribute to a significant cumulative impact associated with construction of utility infrastructure or provision of utility services. OMUC has sufficient potable water supplies to meet existing and future demands through the year 2040 under normal, single-dry, and multiple dry years. As such, the Project would not contribute to a cumulatively considerable impact on water supply. According to IEUA’s 2020 UWMP, the current wastewater treatment capacity of RP-1 is 44 MGD, although it currently treats approximately 21 MGD. As such, there is adequate existing and proposed capacity to provide wastewater treatment for the Project and cumulative development. Therefore, the Project would not result in a significant cumulative impact on wastewater treatment facilities. The City, including the Project Site and cumulative development, are within the service area of the Badlands Sanitary Landfill or El Sobrante Landfill and a majority of the City’s solid waste is disposed of at the Badlands Sanitary Landfill or El Sobrante Landfill. The remaining portions of the City’s solid waste are disposed of at landfills with adequate capacity throughout the County and surrounding counties within the State. The

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solid waste generated by construction and operation of the Project would represent nominal portions of daily disposal capacities at existing landfill facilities. The existing landfill facilities have sufficient daily capacity to handle solid waste during the Project’s construction and operation and would not directly result in the need for expanded solid waste disposal facilities. Further, the Project would adhere to applicable local and State regulations during both construction and long-term operation to reduce solid waste generation. Other cumulative development would be required to comply with such regulations. Therefore, the Project would not have a significant cumulative impact related to solid waste disposal and compliance with regulations addressing the reduction of solid waste generation and disposal. (DEIR, pp. 4.12-12 – 4.12-13)

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### 7.0 OTHER CEQA CONSIDERATIONS

#### 7.1 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

The State CEQA Guidelines require EIRs to address any significant irreversible environmental changes that would be involved with the proposed action should it be implemented (CEQA Guidelines § 15126.2[c]). An environmental change would fall into this category if: a) the project would involve a large commitment of non-renewable resources; b) the primary and secondary impacts of the project would generally commit future generations to similar uses; c) the project involves uses in which irreversible damage could result from any potential environmental accidents; or d) the proposed consumption of resources is not justified (e.g., the project results in the wasteful use of energy).

##### Finding

The Project’s potential to result in significant irreversible impacts is discussed in detail in Section 5.2 of the DEIR. Based on the entire record, the City finds that the Project the Project would not result in significant irreversible environmental changes.

##### Substantial Evidence

Determining whether the Project may result in significant irreversible environmental changes requires a determination of whether key non-renewable resources would be degraded or destroyed in such a way that there would be little possibility of restoring them. Natural resources, in the form of construction materials and energy resources, would be used in the construction of the proposed Project. The consumption of these natural resources would represent an irreversible change to the environment; however, development of the Project Site would have no measurable adverse effect on the availability of such resources, including resources that may be non-renewable (e.g., construction aggregates, fossil fuels). Additionally, the Project is required by law to comply with the California Green Building Standards Code (CALGreen), which will minimize the Project’s demand for energy, including energy produced from non-renewable sources. A more detailed discussion of Project energy consumption is provided in EIR Subsection 4.4, *Energy*.

Implementation of the Project would commit the Project Site to one light industrial building. The potential warehouse land uses for the Project are compatible with the existing industrial land uses that are located east, west, and south of the Project Site and also compatible with the use of East Airport Drive (which abuts the Project Site on the south) as a City-designated truck route. Accordingly, the Project and its environmental effects would not compel or commit surrounding properties to land uses other than those that are existing today or those that are planned by the City of Ontario General Plan. For this reason, the Project would not result in a significant, irreversible change to nearby, offsite properties.

EIR Subsection 4.7, *Hazards and Hazardous Materials*, provides an analysis of the potential for hazardous materials to be transported to/from the Project Site and/or used on the Project Site during construction and operation. As concluded in Subsection 4.7, mandatory compliance with federal, State, and local regulations related to hazardous materials handling, storage, and use by all Project construction contractors (near term) and occupants (long-term) would ensure that any hazardous



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materials used on-site would be safely and appropriately handled to preclude any irreversible damage to the environment that could result if hazardous materials were released from the Site.

As discussed in detail under EIR Subsection 4.5, *Energy*, use of the Project for warehouse would not result in a wasteful, inefficient, or unnecessary consumption of energy. Accordingly, the Project would not result in a significant, irreversible change to the environment related to energy use.

Based on the above, Project construction and operation would require the commitment of limited, slowly renewable and non-renewable resources. This commitment of resources would not be substantial and would be consistent with regional and local growth forecasts and development goals for the area. The loss of such resources would not be highly accelerated when compared to existing conditions, and such resources would not be used in an inefficient or wasteful manner. Project construction and operation would adhere to the sustainability requirements of Title 24, Green Building Code, and CALGreen. Therefore, the Project would not result in the commitment of large quantities of natural resources that would result in significant irreversible environmental changes. (DEIR, pp. 5.5-1 – 5.5-2)

### **7.2 GROWTH INDUCING IMPACTS**

CEQA requires a discussion of the ways in which the Project could be growth-inducing. The State CEQA Guidelines identify a project as growth-inducing if it would foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment (CEQA Guidelines § 15126.2[d]).

#### **Finding**

The Project’s potential to result in growth-inducing impacts is discussed in detail in Section 5.3 of the DEIR. Based on the entire record, the City finds that the Project would not directly or indirectly induce growth in the surrounding area which could result in a significant adverse effect to the environment.

#### **Substantial Evidence**

CEQA requires a discussion of the ways in which the proposed Project could be growth inducing. The CEQA Guidelines identify a project as growth inducing if it would foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment (CEQA Guidelines Section 15126.2(d)). New employees and new residential populations represent direct forms of growth. These direct forms of growth have a secondary effect of expanding the size of local markets and inducing additional economic activity in the area..

A project could indirectly induce growth at the local level by increasing the demand for additional goods and services associated with an increase in population or employment and thus reducing or removing the barriers to growth. This typically occurs in suburban or rural environs where population growth results in increased demand for service and commodity markets responding to the new population of residents or employees.

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According to regional population projections included in SCAG’s Connect SoCal, the City of Ontario’s population is projected to grow by 96,900 residents between 2016 and 2045 (approximately 1.94% annual growth). Over this same time period, employment in the City is expected to add 55,400 new jobs (approximately 1.6% annual job growth) (SCAG, 2020b) Additionally, The Ontario Plan 2050 (TOP 2050) projected a total of 129,562 dwelling units, 261,91,779 sq ft of non-residential uses, 410,492 residents and 296,002 jobs in 2050. (Ontario, 2022b) Economic growth would likely take place as a result of the Project’s operation. The Project’s employees (short-term construction and long term operational) would purchase goods and services in the region, but any secondary increase in employment associated with meeting these goods and services demands is expected to be accommodated by existing goods and service providers and, based on the amount of existing and planned future commercial and retail services available in areas near the Project Site, would be highly unlikely to result in any unanticipated, adverse physical impacts to the environment. In addition, the Project would generate approximately 75 employees per shift, a majority of which would likely be filled by residents of the housing units either already built or planned for development within the City of Ontario and nearby incorporated and unincorporated areas. Accordingly, because it is anticipated that most of the Project’s future employees would already be living in the City of Ontario or the larger Inland Empire area, the Project’s introduction of employment opportunities on the Project Site would not induce substantial growth in the area.

Under CEQA, growth inducement is not considered necessarily detrimental, beneficial, or of little significance to the environment. Typically, growth-inducing potential of a project would be considered significant if it fosters growth or a concentration of population in excess of what is assumed in applicable master plans, land use plans, or in projections made by regional planning agencies such as SCAG. Significant growth impacts also could occur if a project provides infrastructure or service capacity to accommodate growth beyond the levels currently permitted by local or regional plans and policies. In general, growth induced by a project is considered a significant impact if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth significantly affects the environment in some other way.

The Project is consistent with the industrial land use designations applied to the Project Site by the Policy Plan. The area surrounding the Project Site consists of industrial warehouses to the south, east, and west and Southern Pacific railroad to the north with industrial uses beyond. Development of the Project Site is not expected to place short-term development pressure on abutting properties because these areas are already built-out. Based on the foregoing analysis, the Project would not result in substantial, adverse growth-inducing impacts. (DEIR, pp. 5.5-2 – 5.5-3)

### **7.3 IMPACTS CONSIDERED LESS THAN SIGNIFICANT**

Section 15128 of the State CEQA Guidelines states that “an EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR.” The Project’s Notice of Preparation for the DEIR, both of which are included in *Technical Appendix A* to the DEIR, determined that implementation of the Project would clearly have no potential to result in significant impacts under eight (8) environmental issue areas: agriculture and forestry resources, biological resources, land use

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and planning, mineral resources, population and housing, public services, recreation, and wildfire. These impacts are addressed in Section 3.0 of these Findings. (DEIR, pp. 5.5-3 – 5.5-4)

### **8.0 ALTERNATIVES**

#### **8.4.1 ALTERNATIVES CONSIDERED AND REJECTED**

An EIR is required to identify any alternatives that were considered by the Lead Agency but were rejected as infeasible. Among the factors described by CEQA Guidelines §15126.6 in determining whether to exclude alternatives from detailed consideration in the EIR are: a) failure to meet most of the basic project objectives, b) infeasibility, or c) inability to avoid significant environmental impacts. With respect to the feasibility of potential alternatives to the proposed Project, CEQA Guidelines §15126.6(f)(1) notes:

*“Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries...and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site...”*

In determining an appropriate range of alternatives to be evaluated in this EIR, a number of possible alternatives were initially considered and, for a variety of reasons, rejected. Alternatives were rejected because either: 1) they could not accomplish the basic objectives of the Project, 2) they would not have resulted in a reduction of significant adverse environmental impacts, or 3) they were considered infeasible to construct or operate.

##### **1. Alternative Sites**

CEQA requires that the discussion of alternatives focus on alternatives to the Project or its location that are capable of avoiding or substantially lessening any significant effects of the Project. The key question and first step in the analysis is determining whether any of the significant effects of the project would be avoided or substantially lessened by developing the project at another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR (CEQA Guidelines §15126.6(f)(2)).

As discussed above, the Project would result in a significant and unavoidable VMT impact. Development of the Project in an alternative location in the general vicinity of the Project site would not reduce the VMT impact, as trip lengths would not substantially reduce such that the VMT impact could be relieved. Also, placing the Project in a different location would result in similar less-than-significant environmental impacts as would occur with implementation of the Project at its proposed location because the Project’s environmental effects are primarily related to vehicles traveling to/from the Project site (air pollutant and greenhouse gas emissions) and not related to the presence of sensitive resources on the Project site or its location near sensitive receptors. Vehicle-related impacts are a direct reflection of the Project’s expected operational characteristics, regardless of the property where the Project is located. In fact, if an alternative site were selected for the Project that was located farther from major arterial roads that are designated truck routes, like East Airport Drive for example, or

## **“EXHIBIT X”**

regional freeways like I-15 and I-10, than the Project Site, the severity of the Project’s VMT impacts would increase as miles traveled for vehicles going to/from the Project would increase.

Similarly, there are no existing, developed sites for sale that are a similar size as the Project site within close proximity to the key freeway infrastructure and that could reasonably be controlled by the Project Applicant for the purpose of developing the Project. Furthermore, the Project Applicant does not hold ownership control over any other adequately sized parcels of land in or near the Project site that could be used as an alternative location for the proposed Project. CEQA does not require sites that are not owned by the landowner or that could not be reasonably acquired by the landowner to be considered as an alternative to the Project.

Therefore, because an alternative location is not available that would avoid or substantially lessen the significant environmental effects of the Project, and because the Project Applicant does not have ownership control over, and cannot reasonably obtain ownership control over, any other parcels of land of adequate size in the jurisdiction of the City that could accommodate the Project, an alternative location alternative is not required to be analyzed. Accordingly, this alternative is not further considered in the DEIR.. (DEIR, pp. 6-4 – 6-5)

### **8.4.2 NO PROJECT/ NO DEVELOPMENT**

The No Project/No Development Alternative considers no development on the Project site beyond what occurs on the site under existing conditions (as described in EIR Section 3.0). As such, the Alternative is considered to be the scenario where the existing grain processing company and corn storage and distribution facility are retained and the facility continues to its current operation into the future. It is acknowledged, however, that continuing the existing uses is a presumption for purposes of analysis herein and in reality the operator of those facilities may not continue operations and the site could become unoccupied and unused under the scenario of the No Project Alternative. Under this alternative, no improvements would be made to the Project site and none of the Project’s internal parking, utility, and other infrastructure improvements would occur. This alternative was selected by the City to compare the environmental effects of the proposed Project with an alternative that would leave the Project site undeveloped in its general existing conditions.

Implementation of the No Project/No Development Alternative would result in no physical environmental impacts to the Project Site beyond those that have historically occurred on the Project Site. All potentially significant effects of the Project would be avoided by the selection of this Alternative. Because the No Project/No Development Alternative would not redevelop the Project Site and would not expand economic development or facilitate job creation, the No Project Alternative would fail to meet all of the Project’s objectives. (DEIR, pp. 6-6 – 6-9)

Thus, the Planning Commission finds that each of the reasons set forth above is an independent ground for rejecting the No Project/No Development Alternative, and by itself, independent of any other reason, justifies rejection of the No Project/No Development Alternative, and hereby rejects the No Project/No Development Alternative.

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### **8.4.3 REDUCED BUILDING AREA ALTERNATIVE**

The Reduced Building Area Alternative considers a proposal where the Project site would be redeveloped with two uses: a light industrial building and a trailer parking lot. Under this Alternative, a 135,169 s.f. light industrial building (including related site improvements such as truck loading/unloading areas and parking, passenger vehicle parking, landscaping, signage, and public utility connections) would be developed on the eastern portion of the Project site and a trailer parking lot would be developed on the western portion of the Project site. This alternative was selected to evaluate a scenario that would reduce the total building area on the Project site relative to the Project but still allow productive industrial use of the entire Project site.

Based on the reduced building size, daily net new vehicle trip-ends per day would be proportionally decrease by approximately 50 percent and net new average daily trips under this alternative would be less than 110 daily vehicle trips. The Reduced Building Area Alternative would meet the Project Type Screening threshold and VMT impacts would be less than significant and would eliminate the Project’s significant and unavoidable VMT impact. Additionally, the Reduced Building Area Alternative would reduce the Project’s less-than-significant impacts to air quality, energy, greenhouse gas emissions, and utilities and service systems. All other impacts from the Reduced Building Alternative would be similar to the Project. However, the Reduced Building Area Alternative would meet Project Objectives “A” and “B” less effectively than the Project due to the reduction in building area on-site. The Reduced Building Area Alternative would meet all of the Project’s other objectives. (DEIR, pp. 6-10 – 6-14)

Thus, the Planning Commission finds that each of the reasons set forth above is an independent ground for rejecting the Reduced Intensity Alternative, and by itself, independent of any other reason, justifies rejection of the Reduced Building Area Alternative, and hereby rejects the Reduced Building Area Alternative.

### **8.4.4 REDUCED INTENSITY ALTERNATIVE**

The Reduced Intensity Alternative considers a proposal where the Project site would be redeveloped with an industrial building with a total square footage of 63,500 s.f. and the balance of the site would be cleared of existing uses but would not be developed. This represents a reduction in development of 206,837 s.f. compared to the Project (an approximate 76.5 percent reduction). Under this alternative, no high-cube cold storage uses would occur. Access to the site would be similar to the Project with a proportional reduction in the number of passenger vehicle and truck parking spaces. This alternative was selected to evaluate a scenario that would reduce the total building size on the Project site, eliminate the high-cube cold storage use, and would not take into account elimination of existing trips generated by the existing uses in order to achieve a less-than-significant VMT impact. With a building size of 63,500 s.f. and taking no credit for the elimination of existing vehicle trips serving the existing uses on the site, a 63,500 s.f. building would generate fewer than 110 daily trips and meet the City’s small project screening criteria for a less-than-significant VMT impact.

Based on the reduced building size, the Reduced Intensity Alternative is calculated to generate 108 daily vehicle trip-ends per day; therefore, net new average daily trips under this alternative would be less than 110 daily vehicle trips. The Reduced Intensity Alternative would meet the Project Type

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Screening threshold and VMT impacts would be less than significant. The Reduced Intensity Alternative would eliminate the Project’s significant and unavoidable VMT impacts. The Reduced Intensity Area Alternative would reduce the Project’s less-than-significant impacts to air quality, energy, greenhouse gas emissions, noise, and utilities and service systems and reduce the potential for impacts to cultural, paleontological, and tribal cultural resources. All other impacts from the Reduced Intensity Alternative would be similar to the Project. However, the Reduced Intensity Alternative would meet Project Objectives “A” and “B” less effectively than the Project due to the reduction in building area on-site and employees compared to the Project. The Reduced Intensity Alternative would meet all of the Project’s other objectives. (DEIR, pp. 6-14 – 6-18)

Thus, the Planning Commission finds that each of the reasons set forth above is an independent ground for rejecting the Reduced Intensity Alternative, and by itself, independent of any other reason, justifies rejection of the Reduced Intensity Alternative, and hereby rejects the Reduced Intensity Alternative.

### **8.4.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE**

The No Project/No Development Alternative has the least impact to the environment because it would not involve any construction activities or warehouse operations. There would be no impacts associated with a cumulatively considerable VMT impact. This impact is considered significant and unavoidable for the Project. While this alternative would avoid the significant effect of the Project, it would not receive any benefits from the drainage improvements or water quality features that would be constructed by the Project. Additionally, none of the Project objectives would be met. If a “no project” alternative is identified as the environmentally superior alternative then the EIR shall also identify an environmentally superior alternative among the other alternatives (see CEQA Guidelines Section 15126.6(e)(2)). The Reduced Building Area Alternative is identified as the environmentally superior alternative because the Reduced Building Area Alternative would result in the greatest reduction of environmental impacts among the remaining alternatives as summarized in Table 6-1. The reduction in impacts is due to the fact that the use would have reduced vehicular trips, which would result in a reduction in VMT impacts; however, the Reduced Building Area Alternative would only partially meet two of the Project’s objectives. (DEIR, pp. 6-18 – 6-19)

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### 9.0 STATEMENT OF OVERRIDING CONSIDERATIONS

This Section specifically addresses §15093 of the CEQA Guidelines, which requires the City, acting as the Lead Agency, to balance the benefits of the Project against its significant and unavoidable adverse environmental impacts and determine whether the benefits which will accrue from the development of the Project outweigh its significant and unavoidable impacts. If the City finds that the major benefits of the Project outweigh its significant and unavoidable adverse environmental impacts, the City may approve the Project. Each of the separate benefits listed below are hereby determined to be, in itself, and independent of the Project’s other benefits, the basis for overriding all significant and unavoidable environmental impacts identified in the EIR.

As set forth in Section 3.0, above, the EIR identified all of the Project’s adverse environmental impacts and mitigation measures that can reduce the Project’s impacts to less-than-significant level where feasible, or to the lowest feasible levels. Mitigation imposed by the City must have a proportional nexus to the Project’s impacts. As further set forth in Section 5.0, the DEIR presents evidence that implementing the Project would cause or contribute to impacts that would remain significant and unavoidable even after the imposition of all feasible mitigation measures. Finally, as set forth in Section 7.0, there are no feasible alternatives to the Project that would mitigate the Project’s significant and avoidable impacts to less-than-significant level or avoid those environmental impacts while still attaining most of the Project’s basic objectives. Based on the facts presented throughout this document, the City makes the following finding:

□ **Finding**

As the CEQA Lead Agency for the proposed Project, the City has reviewed the Project description and the alternatives to the Project, as presented in the EIR, and the City fully understands the Project and its alternatives. Further, the City finds that all potential adverse environmental impacts and all feasible mitigation measures to reduce the impacts from the Project have been identified in the DEIR, FEIR, and public testimony. Having considered the potential for the Project to cause or contribute to significant and unavoidable adverse impacts to Transportation, the City’s Planning Commission hereby determines that all feasible mitigation measures with proportional nexus to the Project’s impacts have been adopted to reduce or avoid the significant and unavoidable impacts identified in the EIR, and that no additional feasible mitigation or alternatives are available to further reduce or avoid significant impacts. Further, the City’s Planning Commission finds that economic, social, and other considerations of the Project outweigh the Project’s unavoidable impacts to Transportation and that approval of the Project is appropriate. In making this finding, the Planning Commission finds that each of the Project benefits separately and individually outweighs all of the unavoidable adverse environmental effects identified in the EIR and therefore finds those impacts to be acceptable. The Project would meet the following objectives:

- A. To expand economic development and facilitate job creation in the City of Ontario by redeveloping the property with a new, in-demand industrial use adjacent to an already-established industrial area.

## **“EXHIBIT X”**

- B. To attract employment-generating businesses to the City of Ontario to reduce the need for members of the local workforce to commute outside the area for employment.
- C. To develop industrial buildings with loading bays in close proximity to designated truck routes and the State highway system to avoid or shorten heavy truck-trip lengths on City and regional roads.
- D. To attract businesses that can expedite the delivery of goods to consumers and businesses in the City of Ontario and beyond.
- E. To develop a project that has architectural design and operational characteristics that complement other existing and planned buildings in the immediate vicinity of the Project Site and minimize conflicts with other nearby land uses.
- F. To develop a property that has access to available infrastructure, including roads and utilities.

Furthermore, substantial evidence in the record demonstrates that approval and implementation of the Project will provide the benefits listed below:

- a) As set forth in detail in the Findings, all feasible mitigation measures have been imposed to reduce Project environmental effects to less than significant levels.
- b) The Project would develop the property with an employment-generating use;
- c) The Project would attract new employment-generating business to Ontario, thereby reducing the needs for the local workforce to commute outside the area for employment;
- d) The Project would increase the amount of available warehouse space in the City of Ontario;
- e) The new jobs provided by the Project will create direct and indirect economic benefits, such as increased tax income to the City and increased spending on goods and services;
- f) Approval of the Project will result in the Project’s monetary contributions to established fee programs including, but not limited to, the City’s Development Impact Fee (DIF) which will be directed to needed local road improvements;

In conclusion, the Planning Commission finds that the foregoing benefits provided through approval of the Project outweigh the identified significant adverse environmental impacts. The Planning Commission further finds that each of the individual benefits discussed above outweighs the unavoidable adverse environmental effects identified in the Final EIR and, therefore, finds those impacts to be acceptable. The Planning Commission further finds that each of the benefits listed above, standing alone, is sufficient justification for the Planning Commission to override these unavoidable environmental impacts.



## **“EXHIBIT X”**

### **10.0 ADDITIONAL FACTS ON RECORD**

#### **10.1 CUSTODIAN OF RECORD**

The documents and materials that constitute the record of proceedings on which these findings have been based are located at the City of Ontario Planning Department, 303 East B Street, Ontario, CA 91764. The custodian for these records is Thomas Grahn, Senior Planner. This information is provided in compliance with Public Resources Code § 21081.6.



# DEVELOPMENT ADVISORY BOARD DECISION

April 15, 2024

303 East B Street, Ontario, California 91764 Phone: 909.395.2036 / Fax: 909.395.2420

**DECISION NO.:** [insert #]

**FILE NO.:** PDEV22-017

**DESCRIPTION:** A Development Plan to construct a 270,337 square-foot industrial building on 13.08 acres of land (0.47 FAR) located at 5355 East Airport Drive, within the IH (Heavy Industrial) zoning district (APNs: 0238-052-20 & 0238-052-29); **submitted by Prologis. Planning Commission action is required.**

## PART 1: BACKGROUND & ANALYSIS

PROLOGIS, (herein after referred to as "Applicant") has filed an application requesting approval of a Development Plan, File No. PDEV22-017, as described in the subject of this Decision (herein after referred to as "Application" or "Project").

**PROJECT SETTING:** The Project site is comprised of 13.08 acres of land located at 5355 East Airport Drive and is depicted in Exhibit A: Project Location Map, attached. The Project site currently contains a grain processing and storage facility that will be demolished. Existing land uses, Policy Plan (general plan) and zoning designations, and specific plan land uses on and surrounding the Project site are as follows:

	<i>Existing Land Use</i>	<i>Policy Plan Land Use Designation</i>	<i>Zoning Designation</i>	<i>Specific Plan Land Use Designation</i>
Site:	Industrial (Grain processing and storage)	Industrial (0.55 FAR)	IH, Heavy Industrial	N/A
North:	Railroad ROW and Warehouse	Rail & Shea Business Center Beyond	RC Rail Corridor & IH, Heavy Industrial	Industrial / Commercial / Office
South:	Warehouse	Industrial (0.55 FAR)	IH, Heavy Industrial	N/A
East:	Industrial (Industrial gas supplier)	Industrial (0.55 FAR)	IH, Heavy Industrial	N/A
West:	Warehouse	Industrial (0.55 FAR)	IH, Heavy Industrial	N/A

### PROJECT ANALYSIS:

(1) Background — On April 5, 2022, the Applicant submitted the subject Development Plan (File No. PDEV22-017) to develop an industrial building totaling 270,337 square feet of gross floor area on 13.08 acres and having a floor area ratio ("FAR") of 0.47.

On March 18, 2024, the Development Advisory Board (DAB) voted to continue the Project to the next available DAB meeting to allow staff to work with the applicant to revise draft conditions of approval.

(2) Site Design/Building Layout — The proposed development includes a warehouse distribution building, with a footprint of 270,337 square feet. The building is centrally located on the Project site, setback approximately 180 to 200 feet from Airport Drive, 77 feet from the west property line, 72 feet from the east property line, and 40 feet from the north property line. The proposed warehouse building is rectangular in shape, positioned in an east-west orientation, with office space provided in the southwest and southeast corners of the building. The building is approximately 1,057 feet wide by 230 feet deep, with a total gross floor area of 270,337 square feet, including 255,337 square feet of warehouse, up to 15,000 square feet of office and 15,000 square feet of mezzanine area. The parking lot areas are located at the east, west, and south sides of the building, and a gated/walled truck yard is located along the south side of the building.

A yard area designed for tractor-trailer parking, truck maneuvering, and loading activities is proposed along the south side of the building. This area will be screened from public view through a combination of building walls, landscaping, and a 14-foot-high concrete screen wall designed to match the building architecture.

(3) Site Access/Circulation — The Project site will be accessible by trucks and passenger vehicles from Airport Drive to the south. Driveways on Airport Drive are located at both the southwest and southeast corners of the site and will provide access for both passenger vehicles and trucks.

Internal circulation is provided with a minimum 24-foot-wide drive aisles throughout the site. The east and west sides of the Project site provide passenger vehicle parking with shared access separated by gated truck yard along the south side of the building.

(4) Parking — The Project has provided off-street parking pursuant to the warehouse distribution parking standards specified in the Development Code. The number of off-street parking spaces provided exceeds the minimum parking requirement for the Project. The off-street parking calculations for the Project are summarized in the table below:

**Parking Summary**

<i>Type of Use</i>	<i>Building Area (in SF)</i>	<i>Parking Ratio</i>	<i>Spaces Required</i>	<i>Spaces Provided</i>
Office & Mezzanine	15,000 SF Office (and 15,000 SF Mezzanine)	1 passenger vehicle space per 250 SF	120	251 (Parking Lot) 48 (Truck Yard)
Warehouse	255,337 SF	1 passenger vehicle space per 1,000 SF (<20,000 SF) 1 passenger vehicle space per 2,000 SF (>20,000 SF)	131	

*Parking Summary*

<i>Type of Use</i>	<i>Building Area (in SF)</i>	<i>Parking Ratio</i>	<i>Spaces Required</i>	<i>Spaces Provided</i>
<b>TOTAL</b>	<b>270,337</b>		<b>251</b>	<b>251*</b>
<b>Truck Trailer Parking</b>	<b>54 Dock Doors</b>	<b>1 truck trailer space per 4 dock doors</b>	<b>14</b>	<b>48</b>

\* Project site can accommodate vehicle parking in truck yard area if/when needed by tenant operations.

The Project is required to provide 251 vehicle parking spaces and provides 167 vehicle parking spaces in the parking lots and has space for at least 84 spaces within the truck yard area depending on future tenant needs. Depending on the tenant business operations, the 167 spaces in the parking areas on the east and west sides of the building should be sufficient to accommodate the tenant’s needs. As conditioned, the truck yard area shall be required to provide passenger vehicle parking spaces when tenant operations require more than 167 parking spaces, provided a minimum 14 trailer parking spaces are maintained.

(5) Architecture — The Project incorporates a contemporary industrial architectural style. The proposed buildings will be of concrete tilt-up construction with color blocking, accent colors, and score patterns. The paint colors proposed for this building are white and varying shades of gray. Dark green will be utilized as an accent color and applied to the canopy above the office areas. Material such as smooth finish concrete, canopy, and green-hued vision glazing applied to the building elevations and portions of parapet walls.

The architectural design also incorporates wall offsets at the southwest and southeast corners of the building to create variations in the wall plane, visual depth, shadows, and dimensions. The proposed wall offsets on the building are typically three or four feet.

The Project illustrates the type of high-quality architecture promoted by the Development Code, which is exemplified through the use of:

- ❖ Articulation in the building footprint, integrating a combination of recessed and popped-out metal canopies, vertical and horizontal reveals patterns;
- ❖ Articulation in the building parapet/roofline, accentuating the building's entries and breaking up large expanses of the building wall;
- ❖ A mix of exterior materials, finishes, and fixtures;
- ❖ Incorporation of base and top treatments defined by changes in color and recessed wall areas; and
- ❖ Ensuring consistency in massing, proportion, colors, and architectural detailing across all four building elevations.

(6) Landscaping — The Project’s overall landscape coverage is 12.72 percent (72,527 square feet) and exceeds the minimum 10 percent requirement. The Project provides landscaping around the Project perimeter, adjacent to the building and throughout the passenger vehicle parking lots to soften the appearance of these areas and provide

additional shade. The landscape plan includes 199 trees to be planted on-site including the neighborhood edges. The proposed tree species include Western Redbud, Desert Willow, Toyon, Skyrocket Juniper, Afghan Pine, Holly Oak, Chinese Pistache, California Sycamore, and Brisbane Box. Landscape plans will also incorporate low-water usage and drought-tolerant shrubs and ground covers throughout the site.

The Project includes right-of-way improvements (street, curb, gutter, sidewalk, and parkway) along the Airport Drive. The proposed on-site and off-site landscape improvements will assist toward creating safe paths and areas for pedestrians to access the Project site.

(7) Signage — All Project signage is required to comply with sign regulations provided in Ontario Development Code Division 8.1. Prior to the issuance of a Building Permit for the installation of any new on-site signage, the Applicant is required to submit Sign Plans for Planning Department review and approval.

(8) Utilities (drainage, sewer) — Public utilities (water and sewer) are available to serve the Project. Furthermore, the Applicant has submitted a Preliminary Water Quality Management Plan ("PWQMP"), which establishes the Project's compliance with storm water discharge/water quality requirements. The PWQMP includes site design measures that capture runoff and pollutant transport by minimizing impervious surfaces and maximizes low impact development ("LID") best management practices ("BMPs"), such as retention and infiltration, biotreatment, and evapotranspiration. The PWQMP proposes the use of underground storm water retention chambers to receive, retain, and treat storm water runoff. Any overflow drainage will be conveyed to the public street by way of parkway drains and culverts.

**PUBLIC NOTIFICATION:** Public notification is not required, as the Development Advisory Board is acting in its capacity as an advisory body to the Planning Commission.

**CORRESPONDENCE:** Prior to the March 18, 2024, DAB meeting, the City received one comment letter on the Project. At the March 18, 2024 DAB meeting, verbal comments on the Project's potential environmental effects were made by organizations and individuals speaking in opposition to the Project. Both the comment letter and the Applicant's response are provided as attachments to this report. As of the preparation of this Decision, Planning Department staff has not received any additional written or verbal communications from the owners of properties surrounding the project site or from the public in general, regarding the subject application.

**AGENCY/DEPARTMENT REVIEWS:** Each City agency/department has been provided the opportunity to review and comment on the subject application and recommend conditions of approval to be imposed upon the application. At the time of the Decision preparation, recommended conditions of approval were provided and are included with this Decision.

**AIRPORT LAND USE COMPATIBILITY PLAN (ALUCP) COMPLIANCE:** The California State Aeronautics Act (Public Utilities Code Section 21670 et seq.) requires that an Airport Land Use Compatibility Plan be prepared for all public use airports in the State; and requires that local land use plans and individual development proposals must be consistent with the policies set forth in the adopted Airport Land Use Compatibility Plan.

On April 19, 2011, the City Council of the City of Ontario approved and adopted the ONT ALUCP, establishing the Airport Influence Area for Ontario International Airport, which encompasses lands within parts of San Bernardino, Riverside, and Los Angeles Counties, and limits future land uses and development within the Airport Influence Area, as they relate to noise, safety, airspace protection, and overflight impacts of current and future airport activity. As the recommending body for the Project, the Development Advisory Board has reviewed and considered the facts and information contained in the Application and supporting documentation against the ONT ALUCP compatibility factors, including [1] Safety Criteria (ONT ALUCP Table 2-2) and Safety Zones (ONT ALUCP Map 2-2), [2] Noise Criteria (ONT ALUCP Table 2-3) and Noise Impact Zones (ONT ALUCP Map 2-3), [3] Airspace protection Zones (ONT ALUCP Map 2-4), and [4] Overflight Notification Zones (ONT ALUCP Map 2-5). As a result, the Development Advisory Board, therefore, finds and determines that the Project, when implemented in conjunction with the conditions of approval, will be consistent with the policies and criteria set forth within the ONT ALUCP.

**COMPLIANCE WITH THE ONTARIO PLAN:** The proposed Project is consistent with the principles, goals and policies contained within the Vision, Governance, Policy Plan (general plan), and City Council Priorities components of The Ontario Plan ("TOP"). More specifically, the goals and policies of TOP that are furthered by the proposed project are as follows:

(1) City Council Goals.

- Invest in the Growth and Evolution of the City's Economy
- Invest in the City's Infrastructure (Water, Streets, Sewers, Parks, Storm Drains and Public Facilities)
  - Ensure the Development of a Well Planned, Balanced, and Self-Sustaining Community in the New Model Colony

(2) Vision.

**Prosperous Economy:**

- Innovative and highly productive industrial areas that set the standards in the region for efficient land use, environmental management, and workforce employment opportunities.

**Distinctive Development:**

- Commercial and Residential Development

- Development quality that is broadly recognized as distinctive and not exclusively tied to the general suburban character typical of much of Southern California.

(3) Governance.

**Decision Making:**

- Goal G1: Sustained decision-making that consistently moves Ontario towards its Vision by using The Ontario Plan as a framework for assessing choices.

- G 1-2. Long-term Benefit. We require decisions to demonstrate and document how they add value to the community and support the Ontario Vision.

- Goal G3: Thoroughly informed and connected leaders, staff, public and shareholders.

- G 3-6. Monitoring Development and City Master Plans. We monitor development to ensure that it is consistent with City Master Plans (e.g., Water, Parks, Energy, Climate Action Plan, etc.) and The Ontario Plan. The Policy Plan in particular will incorporate changes to Master Plans as they are updated periodically.

(4) Policy Plan (General Plan)

**Land Use Element:**

- Goal LU-1 Balance: A community that has a spectrum of housing types and price ranges that match the jobs in the City and that make it possible for people to live and work in Ontario and maintain a quality of life.

- LU-1.1 Strategic Growth. We concentrate growth in strategic locations that help create place and identity, maximize available and planned infrastructure, foster the development of transit, and support the expansion of the active and multimodal transportation networks throughout the City.

- LU-1.3 Adequate Capacity. We require adequate infrastructure and services for all development.

- LU-1.6 Complete Community. We incorporate a variety of land uses and building types in our land use planning efforts that result in a complete community where residents at all stages of life, employers, workers, and visitors have a wide spectrum of choices of where they can live, work, shop and recreate within Ontario.

- Goal LU-2 Compatibility: Compatibility between a wide range of uses and a resultant urban patterns and forms.

➤ LU-2.6 Infrastructure Compatibility. We require infrastructure to be aesthetically pleasing and in context with the community character.

**Community Economics Element:**

▪ Goal CE-2 Placemaking: A City of distinctive neighborhoods, districts, corridors, and centers where people choose to be.

➤ CE-2.1 Development Projects. We require new development and redevelopment to create unique, high-quality places that add value to the community.

➤ CE-2.2 Development Review. We require those proposing new development and redevelopment to demonstrate how their projects will create appropriately unique, functional, and sustainable places that will compete well with their competition within the region.

➤ CE-2.4 Protection of Investment. We require that new development and redevelopment protect existing investment by providing architecture and urban design of equal or greater quality.

➤ CE-2.5 Private Maintenance. We require adequate maintenance, upkeep, and investment in private property because proper maintenance on private property protects property values.

**Safety Element:**

▪ Goal S-1 Seismic & Geologic Hazards: Minimized risk of injury, loss of life, property damage, and economic and social disruption caused by earthquake-induced and other geologic hazards.

➤ S-1.1 Implementation of Regulations and Standards. We require that all new habitable structures be designed in accordance with the most recent California Building Code adopted by the City, including provisions regarding lateral forces and grading.

**Community Design Element:**

▪ Goal CD-1 Image & Identity: A dynamic, progressive city containing distinct and complete places that foster a positive sense of identity and belonging among residents, visitors, and businesses.

➤ CD-1.1 City Identity. We take actions that are consistent with the City being a leading urban center in Southern California while recognizing, enhancing, and preserving the character of our existing viable neighborhoods.



▪ Goal CD-2 Design Quality: A high level of design quality resulting in neighborhoods, public spaces, parks, and streetscapes that are attractive, safe, functional, human-scale, and distinct.

➤ CD-2.1 Quality Building Design and Architecture. We encourage all development projects to convey visual interest and character through:

- Building volume, massing, and height to provide context-appropriate scale and proportion;
- A true architectural style which is carried out in plan, section, and elevation through all aspects of the building and site design and appropriate for its setting; and
- Exterior building materials that are articulated, high quality, durable, and appropriate for the architectural style.

➤ CD-2.7 Sustainability. We collaborate with the development community to design and build neighborhoods, streetscapes, sites, outdoor spaces, landscaping, and buildings to reduce energy demand through solar orientation, maximum use of natural daylight, passive solar and natural ventilation, building form, mechanical and structural systems, building materials, and construction techniques.

➤ CD-2.8 Safe Design. We incorporate defensible space design into new and existing developments to ensure the maximum safe travel and visibility on pathways, corridors, and open space and at building entrances and parking areas by avoiding physically and visually isolated spaces, maintaining visibility and accessibility, and using lighting.

➤ CD-2.9 Landscape Design. We encourage durable, sustainable, and drought-tolerant landscaping materials and designs that enhance the aesthetics of structures, create and define public and private spaces, and provide shade and environmental benefits.

➤ CD-2.10 Parking Areas. We require all development, including single-family residential, to minimize the visual impact of surface, structured, and garage parking areas visible from the public realm in an aesthetically pleasing, safe and environmentally sensitive manner. Examples include:

- Surface parking: Shade trees, pervious surfaces, urban run-off capture and infiltration, and pedestrian paths to guide users through the parking field;
- Structured parking: facade articulation, screening, appropriate lighting, and landscaping; and

➤ CD-2.11 Entry Statements. We encourage the inclusion of amenities, signage, and landscaping at the entry to neighborhoods, commercial centers, mixed use areas, industrial developments, and public places that reinforce them as uniquely identifiable places.

➤ CD-2.12 Site and Building Signage. We encourage the use of sign programs that utilize complementary materials, colors, and themes. Project signage should be designed to effectively communicate and direct users to various aspects of the development and complement the character of the structures.

➤ CD-3.3 Complete and Connected Network. We require that pedestrian, vehicular, and bicycle circulation on both public and private property be coordinated to provide connections internally and externally to adjacent neighborhoods and properties (existing and planned) through a system of local roads and trails that promote walking and biking to nearby destinations (including existing and planned parks, commercial areas, and transit stops) and are designed to maximize safety, comfort, and aesthetics.

➤ CD-3.4 Context-Aware and Appropriate Design. We require appropriate building and site design that complements existing development, respects the intent and identity of the Place Type, and provides appropriate transitions and connections between adjacent uses to ensure compatibility of scale, maintain an appropriate level of privacy for each use, and minimize potential conflicts.

▪ Goal CD-5 Protection of Investment: A sustained level of maintenance and improvement of properties, buildings, and infrastructure that protects the property values and encourages additional public and private investments.

➤ CD-5.1 Maintenance of Buildings and Property. We require all public and privately-owned buildings and property (including trails and easements) to be properly and consistently maintained.

➤ CD-5.2 Maintenance of Infrastructure. We require the continual maintenance of infrastructure.

**HOUSING ELEMENT COMPLIANCE:** The Project is consistent with the Housing Element of the Policy Plan (general plan) component of The Ontario Plan, as the project site is not one of the properties in the Housing Element Sites contained in Tables B-1 and B-2 (Housing Element Sites Inventory) of the Housing Element Technical Report.

## **PART 2: RECITALS**

WHEREAS, the Application is a Project pursuant to the California Environmental Quality Act (Public Resources Code Section 21000 et seq.) ("CEQA") and an initial study has been prepared to determine possible environmental impacts; and

WHEREAS, the 5355 East Airport Drive Draft Environmental Impact Report (State Clearinghouse No. 2022090006) was prepared (hereinafter referred to as "draft EIR"), in which development and use of the Project site was discussed; and

WHEREAS, the environmental impacts of this Project were thoroughly analyzed in the draft EIR, which concluded that implementation of the Project could result in a number of significant effects on the environment and identified mitigation measures that would reduce each of those significant effects to a less-than-significant level; and

WHEREAS, the City's "Local Guidelines for the Implementation of the California Environmental Quality Act (CEQA)" provide for the use of a single environmental assessment in situations where the impacts of subsequent projects are adequately analyzed; and

WHEREAS, Ontario Development Code Table 2.02-1 (Review Matrix) grants the Development Advisory Board (hereinafter referred to as "DAB") the responsibility and authority to review and make recommendation to the Planning Commission on the subject Application; and

WHEREAS, all members of the DAB of the City of Ontario were provided the opportunity to review and comment on the Application, and no comments were received opposing the proposed development; and

WHEREAS, the Project has been reviewed for consistency with the Housing Element of the Policy Plan component of The Ontario Plan, as State Housing Element law (as prescribed in Government Code Sections 65580 through 65589.8) requires that development projects must be consistent with the Housing Element, if upon consideration of all its aspects, it is found to further the purposes, principals, goals, and policies of the Housing Element; and

WHEREAS, the Project is located within the Airport Influence Area of Ontario International Airport, which encompasses lands within parts of San Bernardino, Riverside, and Los Angeles Counties, and is subject to, and must be consistent with, the policies and criteria set forth in the Ontario International Airport Land Use Compatibility Plan (hereinafter referred to as "ONT ALUCP"), which applies only to jurisdictions within San Bernardino County, and addresses the noise, safety, airspace protection, and overflight impacts of current and future airport activity; and

WHEREAS, City of Ontario Development Code Division 2.03 (Public Hearings) prescribes the manner in which public notification shall be provided and hearing procedures to be followed, and all such notifications and procedures have been completed; and

WHEREAS, on March 18, 2024, the DAB voted to continue the Project to a future DAB meeting to allow staff to work with the applicant to revise draft conditions of approval; and

WHEREAS, on April 15, 2024, the DAB of the City of Ontario conducted a hearing on the Project and concluded said hearing on that date; and

WHEREAS, all legal prerequisites to the adoption of this Decision have occurred.

### ***PART 3: THE DECISION***

NOW, THEREFORE, IT IS HEREBY FOUND, DETERMINED AND DECIDED by the Development Advisory Board of the City of Ontario as follows:

SECTION 1: Environmental Determination and Findings. As the recommending body for the Project, the DAB has reviewed and considered the information contained in the draft EIR and supporting documentation. Based upon the facts and information contained in the draft EIR and supporting documentation, the DAB finds as follows:

- (1) The environmental impacts of this Project were reviewed in conjunction with the 5355 East Airport Drive draft Environmental Impact Report (State Clearinghouse No. 2022090006) ("draft EIR") was prepared; and
- (2) The draft EIR contains a complete and accurate reporting of the environmental impacts associated with the Project; and
- (3) The draft EIR was completed in compliance with CEQA and the Guidelines promulgated thereunder, and the City of Ontario Local CEQA Guidelines; and
- (4) The draft EIR reflects the independent judgment of the Development Advisory Board.

SECTION 2: Housing Element Compliance. Pursuant to the requirements of California Government Code Chapter 3, Article 10.6, commencing with Section 65580, as the recommending body for the Project, the DAB finds that based on the facts and information contained in the Application and supporting documentation, at the time of Project implementation, the Project is consistent with the Housing Element of the Policy Plan (General Plan) component of The Ontario Plan, as the Project site is not one of the properties in the Housing Element Sites contained in Tables B-1 and B-2 (Housing Element Sites Inventory) of the Housing Element Technical Report.

SECTION 3: ALUCP Compliance. The California State Aeronautics Act (Public Utilities Code Section 21670 et seq.) requires that an Airport Land Use Compatibility Plan be prepared for all public use airports in the State; and requires that local land use plans and individual development proposals must be consistent with the policies set forth in the adopted Airport Land Use Compatibility Plan. On April 19, 2011, the City Council of the City of Ontario approved and adopted the Ontario International Airport Land use Compatibility Plan, establishing the Airport Influence Area for Ontario International Airport, which encompasses lands within parts of San Bernardino, Riverside, and Los Angeles Counties, and limits future land uses and development within the Airport Influence Area, as they relate to noise, safety, airspace protection, and overflight

impacts of current and future airport activity. As the recommending body for the Project, the DAB has reviewed and considered the facts and information contained in the Application and supporting documentation against the ALUCP compatibility factors, including [1] Safety Criteria (ALUCP Table 2-2) and Safety Zones (ALUCP Map 2-2), [2] Noise Criteria (ALUCP Table 2-3) and Noise Impact Zones (ALUCP Map 2-3), [3] Airspace protection Zones (ALUCP Map 2-4), and [4] Overflight Notification Zones (ALUCP Map 2-5). As a result, the DAB, therefore, finds and determines that the Project, when implemented in conjunction with the conditions of approval, will be consistent with the policies and criteria set forth within the ALUCP.

SECTION 4: Concluding Facts and Reasons. Based upon the substantial evidence presented to the DAB during the above-referenced hearing and upon the facts and information set forth in Parts I (Background and Analysis) and II (Recitals), above, and the determinations set forth in Sections 1 and 3, above, the DAB hereby concludes as follows:

(1) *The proposed development at the proposed location is consistent with the goals, policies, plans and exhibits of the Vision, Policy Plan (General Plan), and City Council Priorities components of The Ontario Plan.* The proposed Project is located within the Industrial land use district of the Policy Plan Land Use Map. The development standards and conditions under which the proposed Project will be constructed and maintained, is consistent with the goals, policies, plans, and exhibits of the Vision, Policy Plan (General Plan), and City Council Priorities components of The Ontario Plan; and

(2) *The proposed development is compatible with those on adjoining sites in relation to location of buildings, with particular attention to privacy, views, any physical constraint identified on the site and the characteristics of the area in which the site is located.* The Project has been designed consistent with the requirements of the City of Ontario Development Code, including standards relative to the particular land use proposed (warehouse), as-well-as building intensity, building and parking setbacks, building height, number of off-street parking and loading spaces, on-site and off-site landscaping, and fences, walls and obstructions; and

(3) *The proposed development will complement and/or improve upon the quality of existing development in the vicinity of the Project and the minimum safeguards necessary to protect the public health, safety and general welfare have been required of the proposed Project.* The Development Advisory Board has required certain safeguards, and impose certain conditions of approval, which have been established to ensure that: [i] the purposes of the Development Code are maintained; [ii] the Project will not endanger the public health, safety or general welfare; [iii] the Project will not result in any significant environmental impacts; [iv] the Project will be in harmony with the area in which it is located; and [v] the Project will be in full conformity with the Vision, City Council Priorities and Policy Plan components of The Ontario Plan; and

(4) *The proposed development is consistent with the development standards and design guidelines set forth in the Development Code, or applicable specific plan or*

*planned unit development*. The proposed Project has been reviewed for consistency with the general development standards and guidelines of the Development Code that are applicable to the proposed Project, including building intensity, building and parking setbacks, building height, amount of off-street parking and loading spaces, parking lot dimensions, design and landscaping, bicycle parking, on-site landscaping, and fences and walls, as-well-as those development standards and guidelines specifically related to the particular land use being proposed (warehouse). As a result of this review, the Development Advisory Board has determined that the Project, when implemented in conjunction with the conditions of approval, will be consistent with the development standards and guidelines described in the Development Code.

SECTION 5: Development Advisory Board Action. Based on the findings and conclusions set forth in Sections 1 through 4, above, the DAB hereby recommends the Planning Commission APPROVES the Application subject to each and every condition set forth in the Conditions of Approval included as Attachment A of this Decision and incorporated herein by this reference.

SECTION 6: Indemnification. The Applicant shall agree to defend, indemnify and hold harmless, the City of Ontario or its agents, officers, and employees from any claim, action or proceeding against the City of Ontario or its agents, officers or employees to attack, set aside, void or annul this approval. The City of Ontario shall promptly notify the applicant of any such claim, action or proceeding, and the City of Ontario shall cooperate fully in the defense.

SECTION 7: Custodian of Records. The documents and materials that constitute the record of proceedings on which these findings have been based are located at the City of Ontario City Hall, 303 East "B" Street, Ontario, California 91764. The custodian for these records is the City Clerk of the City of Ontario. The records are available for inspection by any interested person, upon request.

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APPROVED AND ADOPTED this 15th day of April 2024.

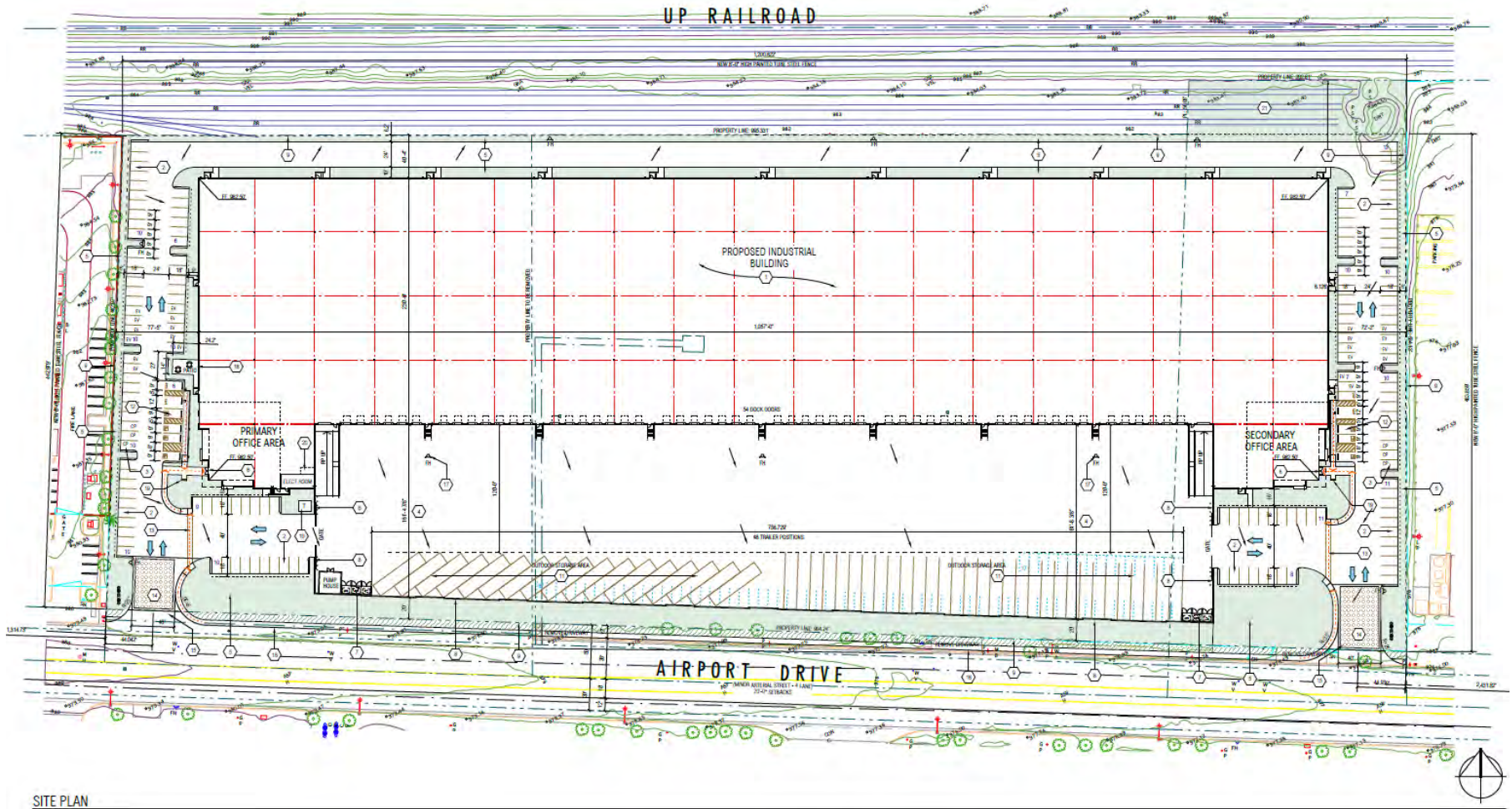
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Development Advisory Board Chairman

**Exhibit A: PROJECT LOCATION MAP**

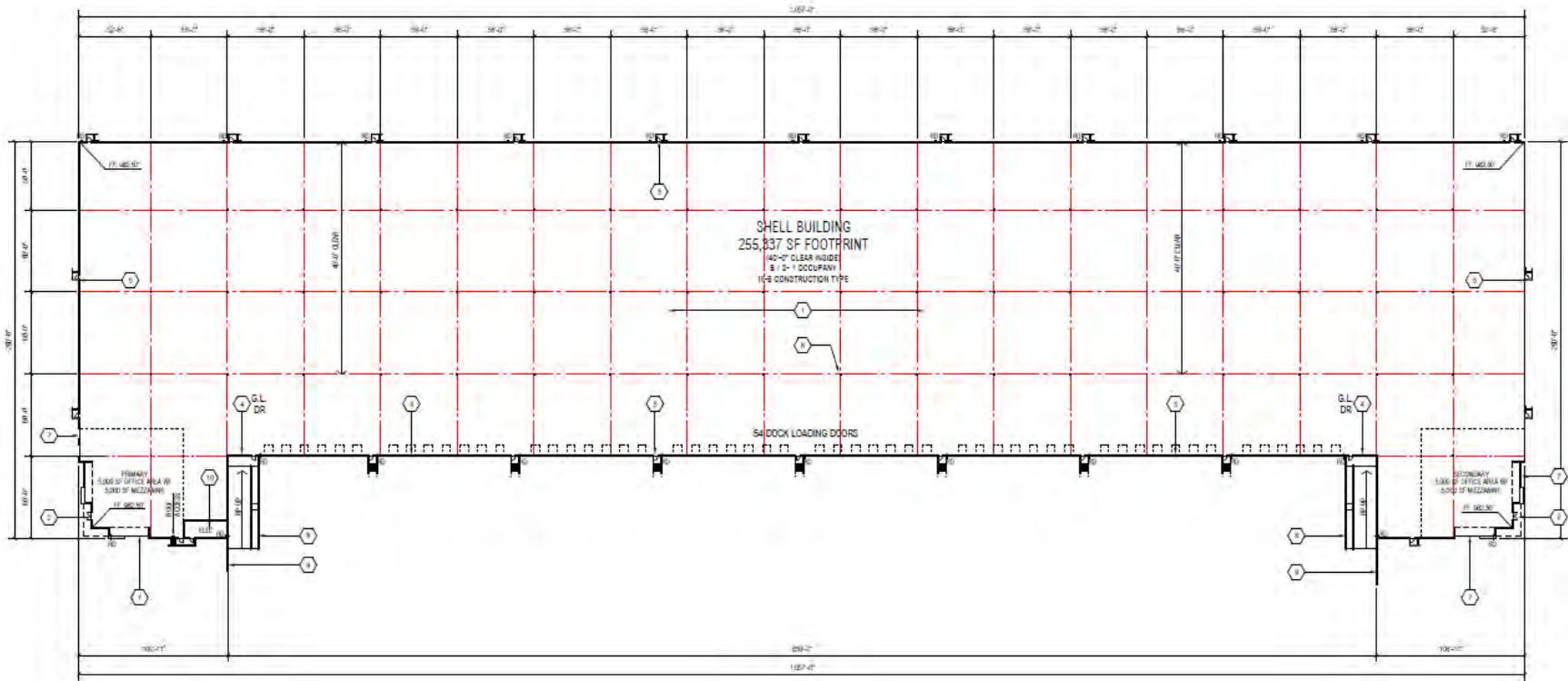


**Exhibit B: SITE PLAN**





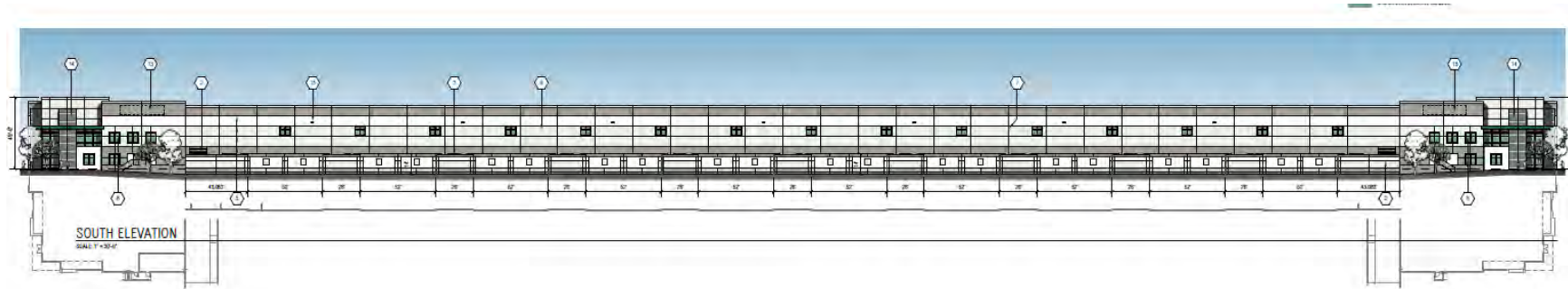
**Exhibit C: FLOOR PLAN**



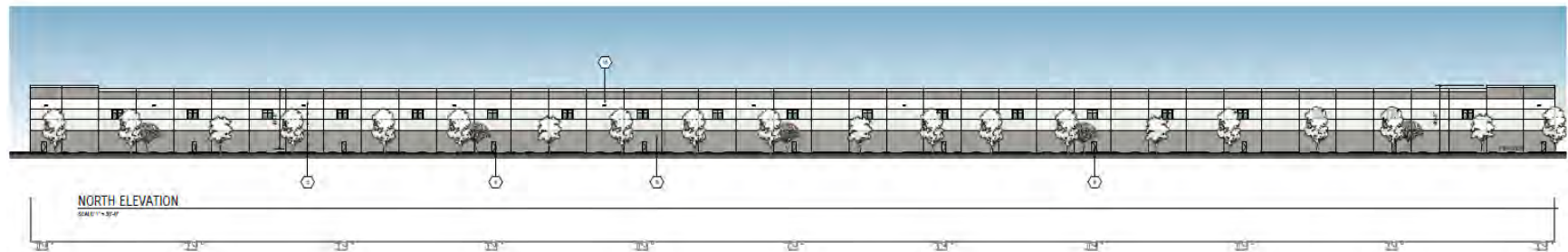
FLOOR PLAN  
SCALE 1" = 40'-0"

**Exhibit D: ELEVATIONS**

**South Elevation**



**North Elevation**



**Exhibit F: ELEVATIONS (CONT.)**

**West Elevation**

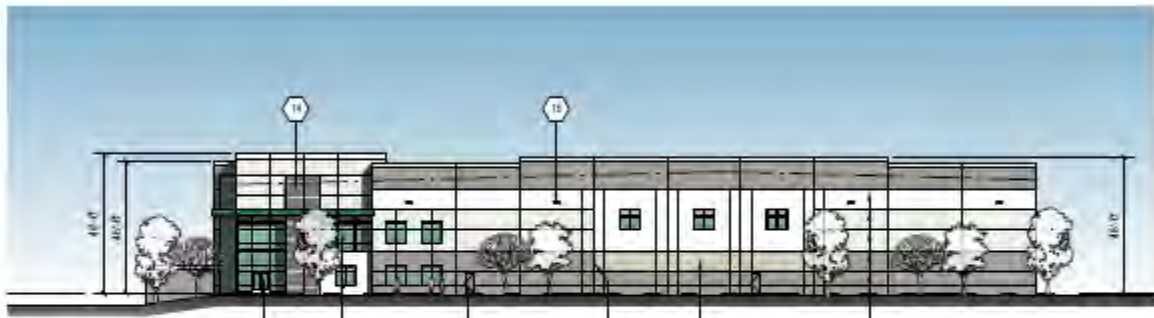


**WEST ELEVATION**

SCALE: 1" = 30'-0"



**East Elevation**

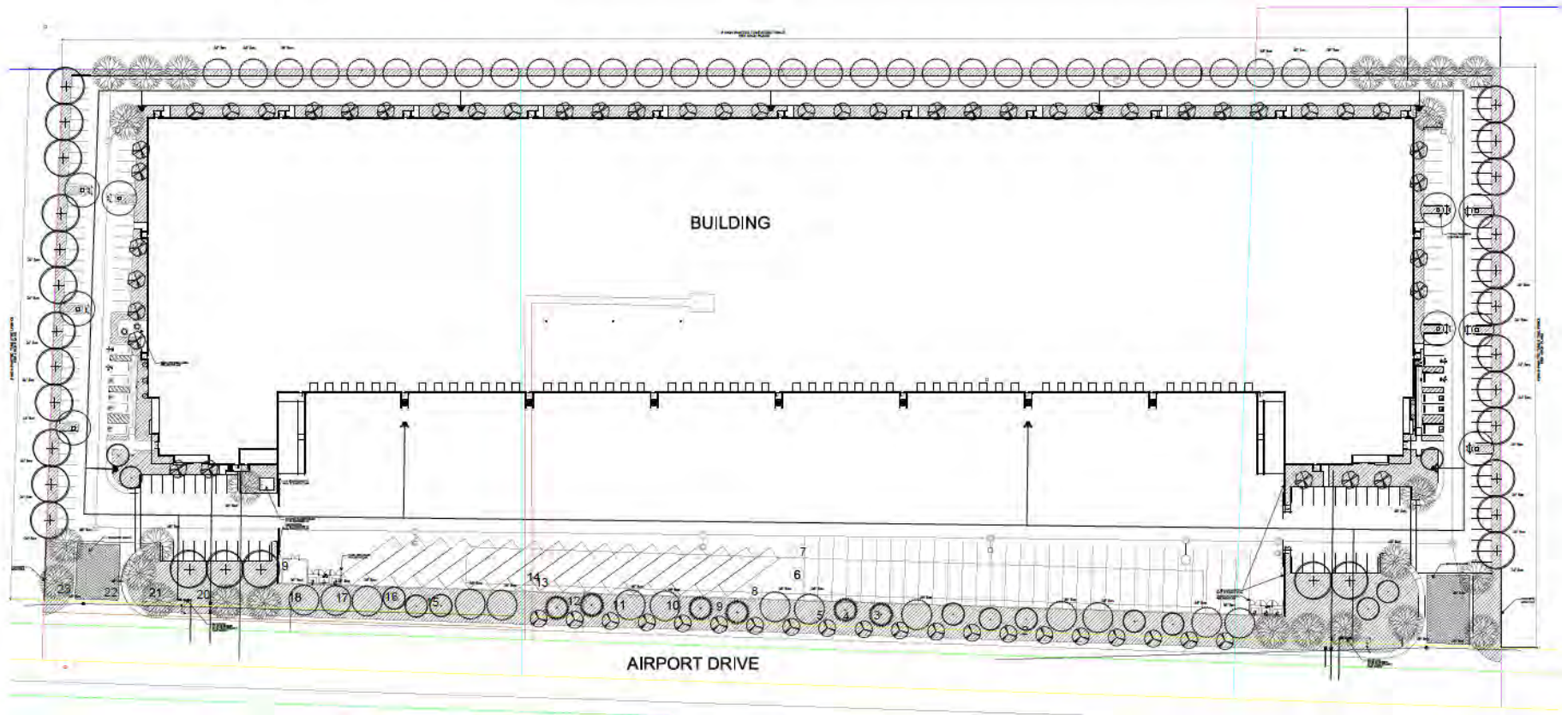


**EAST ELEVATION**

SCALE: 1" = 30'-0"



**Exhibit F: CONCEPTUAL LANDSCAPE PLAN**



**Attachment A: Conditions of Approval**

*(Conditions of Approval follow this page)*

**From:** Henry K. Noh  
**Sent:** Monday, March 18, 2024 8:46 AM  
**To:** Thomas Grahn  
**Cc:** Gwen Berendsen; Lorena Mejia  
**Subject:** FW: DAB Agenda Item D for March 18, 2024

FYI, he sent this to Lorena but this is your item.

**Henry K. Noh**

Planning Director  
303 E. B Street, Ontario, CA 91764  
P: 909-395-2996  
[hnoh@ontarioca.gov](mailto:hnoh@ontarioca.gov)  
[www.ontarioca.gov](http://www.ontarioca.gov)



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**From:** [rfs702@verizon.net](mailto:rfs702@verizon.net) <[rfs702@verizon.net](mailto:rfs702@verizon.net)>  
**Sent:** Sunday, March 17, 2024 8:02 PM  
**To:** Lorena Mejia <[LMejia@ontarioca.gov](mailto:LMejia@ontarioca.gov)>; Planning Director <[planningdirector@ontarioca.gov](mailto:planningdirector@ontarioca.gov)>  
**Cc:** Henry K. Noh <[HNoh@ontarioca.gov](mailto:HNoh@ontarioca.gov)>; Chris Robles <[chris@fairontario.com](mailto:chris@fairontario.com)>  
**Subject:** DAB Agenda Item D for March 18, 2024

Ms. Mejia,

- ***Please include this email as part of the public record.***

I would like to express several concerns I have about the referenced project as presented in the Board packet published on the City website. I hope you can clear these up for me.

1. Greenhouse Gas Emissions

It has been clearly demonstrated that our air pollution may be among the worst in the nation. As such it is in the best interest of the citizens of Ontario to reduce local pollution sources wherever possible. The recent warehouse approvals regularly refer to the city policy (CCAP) of limiting new projects to 3000 metric tons of CO2 equivalents per year. The proposal seems to claim that this project will only create 2590.77 metric tons. (pages 333, 334) In reality it is creating 4236.54 metric tons and wants to take credit for 1645.77 no longer emitted by the current occupants. This is their basis for saying no mitigation is needed. Why would they be entitled to claim this credit. They are generating 4236.54 units which exceeds the 3000 max proscribed by the city guidelines. Am I mistaken?

## 2. SCAQMD guidelines

On page 560 the consultant says the 2022 AQMP plan is not ready and does not need to be considered. I attach the cover sheet of said plan actually adopted in December of 2022.

## 3. Health & Equity (pages 770, 771)

It seems self-evident in reading these pages that we live in deplorable circumstances. It is incumbent on City leaders to give more consideration to the health of our citizens than to 100,000 sq ft warehouses. To wit:

- a. Ozone in the 91st percentile in the State
- b. Air Quality in the 95th percentile
- c. Traffic in the 89th percentile

## 4. Mitigation Measures

It seems the least the City could do would be to mandate even the bare minimum of mitigation measures for all these projects as mentioned several times in the documents. (For example, Letter to Thomas Grahn from SQAQMD, page 495, "In the event that the Proposed Project results in significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized to minimize these impacts." These could include:

- a. Roof top solar
- b. Reflective roofing
- c. Electric charging stations
- d. No or limited on site truck idling
- e. Night time deliveries
- f. Require deliveries via ZE or NZE vehicles
- g. Energy Star appliances

Looking forward to hearing from you.

Raymond Smith  
3937 San Lorenzo River Road  
Ontario 91761



## MEMORANDUM

**TO:** Thomas Grahn, Senior Planner  
City of Ontario  
303 East B Street  
Ontario, CA 91764

**FROM:** Tracy Zinn, Principal  
Tracy Chu, Assistant Project Manager

**DATE:** March 25, 2024

**RE:** 5355 East Airport Drive (PDEV22-017) – Response to Additional Comment Letter and Verbal Comments Expressed at DAB Meeting

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T&B Planning, Inc. is the environmental consulting firm that prepared the Environmental Impact Report (EIR; SCH No. 2022090006) for the 5355 East Airport Drive Project (hereafter “Project”). The Project Applicant, Prologis, Inc., proposes to demolish the existing buildings and structures on the Project site and redevelop the property with a 270,337 square foot (s.f.) warehouse building. The Project’s design also includes the installation of associated site improvements, including drive aisles, landscaping, utility infrastructure, underground storm drain detention facilities, exterior lighting, walls/fencing, and signage as well as site-adjacent improvements to East Airport Drive. The Draft EIR for the Project was published on August 22, 2023, for a 45 day review period, with the local review period and State review period ending on October 5, 2023.

On March 17, 2024, a letter was sent to the City from Raymond Smith (hereinafter “Comment Letter”) on the Project. Subsequently, on March 18, 2024, during the Development Advisory Board (DAB) meeting, verbal comments on the Project’s potential environmental effects were made by an organization and individuals including Californians Allied for a Responsible Economy (CARECA).

T&B Planning prepared this memorandum in response to the comments received alleging deficiencies in the Draft EIR’s environmental impact analysis. This memorandum addresses items in the Comment Letter and the verbal comments received during the DAB meeting that are applicable to CEQA compliance. The responses contained herein demonstrate that the Draft EIR’s analyses and conclusions are correct and satisfy CEQA compliance requirements. For the reasons outlined in this memorandum, the comments do not present substantial new information, do not necessitate revisions to the Draft EIR or Final EIR, and do not trigger the need for recirculation of the Draft EIR or Final EIR, or the conduct of additional environmental review pursuant to CEQA Guidelines § 15088.5.







**Commenter Letter: Raymond Smith dated March 17, 2024.**

1-1 The commenter raises concern about the Project’s greenhouse gas (GHG) emissions impacts and questions why the Draft EIR took credit for existing emissions to determine the level of significance. As discussed in Draft EIR Section 4.6, *Greenhouse Gas Emissions*, construction and operation of the Project would generate a total of approximately 4,236.54 MTCO<sub>2</sub>e/yr. GHG emissions from existing land uses on the Project Site were appropriately subtracted from the Project’s gross emissions to determine the net (or new) emissions attributed to the Project. Construction and operation of the Project less emissions from the existing onsite uses would result a net total of new GHG emissions of approximately 2,590.77 MTCO<sub>2</sub>e/yr, which would fall below the significance threshold of 3,000 MTCO<sub>2</sub>e/yr; therefore, Project-related GHG emissions are considered less than significant (refer to Draft EIR p. 4.6-22). The CEQA Statute and Guidelines explicitly describe how the baseline of existing environmental conditions is to be defined, against which an EIR measures the impacts of a proposed project. The baseline consists of the conditions at the time the environmental impact review process begins (refer to 14 Cal Code Regs §15126.2). Because existing uses were located on the Project Site when environmental review began, the GHG emissions produced from those uses are accounted for in the baseline. Because those uses would be demolished/cease operation as a result of the Project, and be replaced with a new use, the analysis appropriately considers elimination of the GHG emissions associated with the existing use and the addition of GHG emissions associated with the new use. Therefore, the net emissions generated from the Project demonstrates the overall increase of GHG emissions on the environment. No additions, revisions, or corrections to the Draft EIR or Final EIR are necessary and no further response is required.

1-2 The commenter points out that the Air Quality technical report (*Technical Appendix B1* of the Draft EIR) does not reference the 2022 Air Quality Management Plan (AQMP), which the SCAQMD adopted in December 2022, and instead relies upon the prior, 2016 AQMP. The comment is correct, but does not render the Draft EIR deficient. The Project’s Air Quality Impact Analysis was published on August 30, 2022, prior to the adoption of the 2022 AQMP. Nevertheless, the Project would not be in conflict with either the 2016 AQMP or the 2022 AQMP. The criteria for determining consistency with the 2022 AQMP is the same criteria for determining consistency with the 2016 AQMP, and are analyzed below, demonstrating that the Project is in compliance.

- Consistency Criterion 1: The proposed Project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

Consistency Criterion No. 1 refers to violations of the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if localized or regional significance thresholds were exceeded. As discussed in Draft EIR Section 4.2, *Air Quality*, the Project’s localized and regional construction-source emissions would not exceed applicable regional significance threshold and local significance thresholds (LSTs) during both Project construction and operation (refer to Draft EIR pp. 4.2-31 to 4.2-36). As such, a less than significant impact would occur. Accordingly, the Project is determined to be consistent with the first criterion.





- Consistency Criterion 2: The Project will not exceed the assumptions in the AQMP based on the years of Project buildout phase.

The 2022 AQMP demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under federal law. Growth projections from local general plans adopted by cities in the SCAQMD are provided to SCAG, which develops regional growth forecasts, which are then used to develop future air quality forecasts for the AQMP. Development consistent with the growth projections in City of Ontario Policy Plan is considered to be consistent with the AQMP. The City of Ontario Policy Plan designates the Project Site for Industrial uses. The Project’s proposed warehouse building is consistent with the Site’s land use designations and no General Plan Amendment is required. As such, the Project’s proposed land use and development is consistent with the Policy Plan’s land use designation. Accordingly, the Project is determined to be consistent with the second criterion.

Based on the preceding, the Project would be consistent with the 2022 AQMP and impacts would be less than significant. Information about the Project’s consistency with the 2022 AQMP does not present substantial new information resulting in the need for recirculation or additional environmental review pursuant to CEQA Guidelines § 15088.5. No substantive additions, revisions, or corrections to the Draft EIR are necessary and no further response is required.

- 1-3 The commenter cites the CalEnviroScreen scores for the Project site’s census tract as shown in the appendices of the Project’s Air Quality technical report and raises concern over health impacts to residents. As shown on Draft EIR Figure 4.2-1, *Sensitive Receptor Locations*, there are no residential uses in immediate proximity to the Project Site. The nearest sensitive receptors are hotels, located on the opposite side of I-10 and I-15, and more than 3,800 feet from the Project Site. The Project Site is surrounded by industrial uses. As concluded in Draft EIR Section 4.2, *Air Quality*, (1) the Project’s localized construction and operational emissions would not exceed the SCAQMD’s localized significance thresholds; (2) based on the Project-specific mobile source health risk assessment (HRA) (*Technical Appendix B2* of the Draft EIR), the Project would not result in significant health impacts due to diesel particulate matter (DPM) emissions; and (3) the Project would not cause or contribute to any Carbon Monoxide (CO) “hot spots (refer to pp. 4.2-33 to 4.2-36 of the Draft EIR). Therefore, localized air quality impacts would be less than significant. No additions, revisions, or corrections to the Draft EIR are necessary and no further response is required.
- 1-4 The commenter recommends mitigation measures for GHG emissions and cites the SCAQMD’s letter submitted on the EIR’s Notice of Preparation (NOP). The commenter’s suggested mitigation measures include adding roof top solar, reflective roofing, energy star appliances, and electric charging stations, limiting on site truck idling and nighttime deliveries, and requiring zero emission or net zero emission delivery vehicles. The commenter is referred to the Project’s Final EIR, which evaluated the feasibility of additional GHG mitigation measures, including 38 measures recommended in the California Department of Justice Warehouse Project Best Practices manual (refer to Final EIR, response to comments B-41 to B-78). Specifically, the commenter is referred to response to comments B-59, B-56, and B-53 for responses to comments suggesting roof top solar, truck idling restrictions, and zero emission vehicles, respectively. Additionally, of the Project’s 251 onsite passenger vehicle spaces, 25 spaces would be designated as



electric vehicle parking stalls (Refer to Draft EIR p. 3-6). The Project proposes a conventional warehouse use reflecting contemporary energy efficient/energy conserving designs and operational programs and would be required to comply with the applicable provisions of the California Green Building Standards Code (CalGreen), California Code of Regulations (CCR) Title 24 Part 6: The California Energy Code standards, that are in place at the time construction permit plan check submittals are made. As concluded in Draft EIR Section 4.2, *Air Quality*, Project operation-source emissions would not exceed the SCAQMD regional thresholds of significance for any criteria pollutants even when not taking into account the elimination of air pollutant emissions from existing uses on the site that would be demolished/cease operation as part of the Project (refer to Draft EIR pp. 4.2-31 to 4.2-32). Because impacts would be less than significant and a number of Project design features and regulatory requirements are already in place to reduce air pollutant emissions, additional mitigation is not warranted.

### Comments Received During the DAB Meeting

The following responses are organized to correspond with the environmental topic issues that were mentioned during the Design Advisory Board (DAB) meeting held on March 18, 2024.

#### Transportation

Concerns about the Project’s traffic volumes were raised. Specifically, one commenter stated that [level of service (LOS)] traffic impacts within a 5-mile radius of the Project Site should be analyzed to address impacts on nearby streets and a Traffic Impact Analysis report should be conducted.

First, it should be noted that the basis for evaluation of transportation impacts under CEQA is vehicle miles traveled (VMT) and not LOS. Nonetheless, as stated in the Project’s Trip Generation Assessment (*Technical Appendix K* to the Draft EIR), the City’s Guidelines identify that a project could potentially require further traffic analysis if the project generates more than 100 peak hour trips in either peak hour. This is based on the assumption that projects that generate fewer than 100 peak hour trips typically do not affect LOS significantly once distributed to the local roadway network. Also, the City’s Guidelines state that the minimum area to be studied should include any intersection at which the proposed project would add 50 or more peak hour trips.

The Project is calculated to generate 476 vehicle trip-ends per day with 42 AM peak hour trips and 46 PM peak hour trips (actual vehicles) as shown in Draft EIR *Technical Appendix K*. Even without taking credit for elimination of traffic from the existing uses on the Site that would be demolished/cease operation as a result of the Project, fewer than 100 peak hour trips would be generated. Furthermore, taking into consideration the distribution of traffic to the west and east on East Airport Drive, the Project is would clearly contribute fewer than 50 peak hour trips to any off-site intersection. As such, a LOS-based traffic study is not required based on the findings of the Trip Generation Assessment. Moreover, and as stated above, automobile delay, as measured by LOS and other similar metrics, no longer constitutes a significant environmental effect under CEQA. Lead agencies in California are required to use VMT to evaluate project-related transportation impacts. This statewide mandate went into effect July 1, 2020. CEQA Guidelines Section 15064.3, effective January 1, 2019, “describes specific considerations for evaluating a project’s transportation impacts” and provides that, except for roadway capacity projects, “a project’s effect on automobile delay (or LOS)” shall not constitute a significant environmental impact” (CEQA Guidelines Section 15064.3(a)). Moreover, vehicle congestion is not a CEQA issue as it pertains to LOS.



Additionally, a commenter questioned why the Project’s truck traffic (which was incorrectly stated as comprising 300 daily trips), would not result in significant air quality impacts. As shown in Draft EIR Table 4.10-3, *Project Net New Daily Trips*, the Project would generate 168 total daily truck trip, but a net increase of only 61 daily truck trips when taking credit for the elimination of truck trips from the existing onsite uses that would be demolished/cease operation as a result of the Project. Refer below to the discussion related to air quality impacts, which the Draft EIR accurately concludes would be less than significant. The Draft EIR adequately addresses both transportation and air quality impacts and no additions, revisions, or corrections to the Draft EIR are necessary.

#### Air Quality

Comments were made related to the Project’s air quality impacts and it was suggested that air filters be provided to nearby school and residents. As discussed in Draft EIR Section 4.2, *Air Quality*, the Project Site is primarily surrounded by industrial uses. The residential land use with the greatest potential exposure to Project’s operational-source air pollutant emissions is located approximately 8,840 feet northwest of the Project Site (represented by an existing residence at 11210 Fourth Street) on the opposite side of I-15 and I-10 from the Project Site. At this Maximally Exposed Individual Resident (MEIR), the maximum incremental cancer risk attributable to Project operational-source DPM emissions is calculated at 0.01 in one million, which is far less than the SCAQMD’s significance threshold of 10 in one million. At this same location, non-cancer risks were calculated to be <0.01, which also fall far below the applicable significance threshold of 1.0. All other residential receptors are located at a greater distance from the Project Site than the MEIR and therefore would be exposed to less emissions and therefore less risk than the MEIR. There are no residential receptors located in immediate, close proximity to the Project Site. As concluded by the Draft EIR, the Project will not cause a significant human health or cancer risk to nearby residences. Moreover, there are no schools within one-quarter mile of the Project Site. The nearest school is Chaparral Elementary School, which is located approximately 11,200 feet southeast of the Project Site (over 2 miles away). Because there is no reasonable potential that the Project’s air pollutant emissions would cause significant health impacts at distances to existing sensitive receptors, the Project would result in less-than-significant impacts (refer to Draft EIR pp. 4.2-35 to 4.2-36). Thus, the City determines that additional mitigation in the form of supplying air filters to residents and schools, or in any other form, is not warranted.

#### Electric Trucks

A comment was made suggesting that the truck fleet serving the Project Site be electric powered. Refer to Final EIR response to comment B-53, which explains the infeasibility of requiring zero emissions trucks. The City has determined that the suggestion is not feasible.

#### Cumulative Effects

A representative from CARECA incorrectly stated that the Draft EIR did not analyzed cumulative impacts in the surrounding areas as required by State law and only provided Project-level analysis. Refer to Final EIR response to comments A-12 to A-16, which is the comment letter submitted by Adams Broadwell Joseph & Cardozo on behalf of CARECA related to the Draft EIR’s cumulative impacts discussion. The response was complete and no further response is required.

#### GHG Emission Impacts

A representative from CARECA claimed that the Draft EIR was inadequate due to conflicts with the State Attorney General’s approach for analyzing air quality and GHG impacts. Refer to Final EIR response to comments A-14 to A-



15, and A-18 related to the methodology on determining impacts. The response was complete and no further response is required.



5355 East Airport Drive (PDEV22-017) – Response to March 17, 2024 Comment Letter  
March 25, 2024

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**Attachment A:**  
**Comment Letter**

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[www.tbplanning.com](http://www.tbplanning.com)



PLANNING • DESIGN • ENVIRONMENTAL • GRAPHICS



**From:** [rfs702@verizon.net](mailto:rfs702@verizon.net) <[rfs702@verizon.net](mailto:rfs702@verizon.net)>  
**Sent:** Sunday, March 17, 2024 8:02 PM  
**To:** Lorena Mejia <[L.Mejia@ontarioca.gov](mailto:L.Mejia@ontarioca.gov)>; Planning Director <[planningdirector@ontarioca.gov](mailto:planningdirector@ontarioca.gov)>  
**Cc:** Henry K. Noh <[HNoh@ontarioca.gov](mailto:HNoh@ontarioca.gov)>; Chris Robles <[chris@fairontario.com](mailto:chris@fairontario.com)>  
**Subject:** DAB Agenda Item D for March 18, 2024

Ms. Mejia,

- **Please include this email as part of the public record.**

I would like to express several concerns I have about the referenced project as presented in the Board packet published on the City website. I hope you can clear these up for me.

1. Greenhouse Gas Emissions

It has been clearly demonstrated that our air pollution may be among the worst in the nation. As such it is in the best interest of the citizens of Ontario to reduce local pollution sources wherever possible. The recent warehouse approvals regularly refer to the city policy (CCAP) of limiting new projects to 3000 metric tons of CO2 equivalents per year. The proposal seems to claim that this project will only create 2590.77 metric tons. (pages 333, 334) In reality it is creating 4236.54 metric tons and wants to take credit for 1645.77 no longer emitted by the current occupants. This is their basis for saying no mitigation is needed. Why would they be entitled to claim this credit. They are generating 4236.54 units which exceeds the 3000 max proscribed by the city guidelines. Am I mistaken?

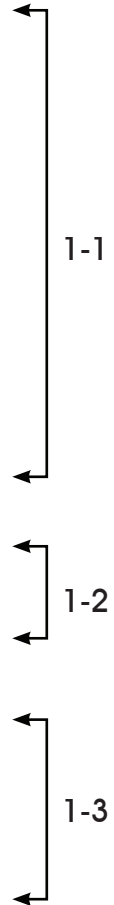
2. SCAQMD guidelin

On page 560 the consultant says the 2022 AQMP plan is not ready and does not need to be considered. I attach the cover sheet of said plan actually adopted in December of 2022.

3. Health & Equity (pages 770, 771)

It seems self-evident in reading these pages that we live in deplorable circumstances. It is incumbent on City leaders to give more consideration to the health of our citizens than to 100,000 sq ft warehouses. To wit:

- a. Ozone in the 91st percentile in the State
- b. Air Quality in the 95th percentile
- c. Traffic in the 89th percentile

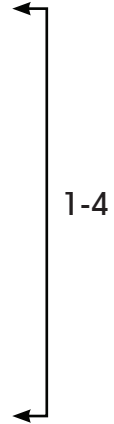




4. Mitigation Measures

It seems the least the City could do would be to mandate even the bare minimum of mitigation measures for all these projects as mentioned several times in the documents. (For example, Letter to Thomas Grahn from SQAQMD, page 495, "In the event that the Proposed Project results in significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized to minimize these impacts." These could include:

- a. Roof top solar
- b. Reflective roofing
- c. Electric charging stations
- d. No or limited on site truck idling
- e. Night time deliveries
- f. Require deliveries via ZE or NZE vehicles
- g. Energy Star appliances



Looking forward to hearing from you.

Raymond Smith  
3937 San Lorenzo River Road  
Ontario 91761





**Date Prepared:** 4/15/2024

**File No:** PDEV22-017

**Related Files:**

**Project Description:** A Development Plan to construct a 270,337-square-foot industrial building on 13.08 acres of land (0.47 FAR) located at 5355 East Airport Drive, within the IH (Heavy Industrial) zoning district; (APN(s): 0238-052-20 & 0238-052-29); **submitted by Prologis.**

**Prepared By:** Thomas Grahn, Senior Planner  
Phone: 909.395.2413 (direct)  
Email: tgrahn@ontarioca.gov

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The Planning Department, Land Development Section, conditions of approval applicable to the above-described Project, are listed below. The Project shall comply with each condition of approval listed below:

**1.0 Standard Conditions of Approval.** The project shall comply with the *Standard Conditions for New Development*, adopted by City Council Resolution No. 2017-027 on April 18, 2017. A copy of the *Standard Conditions for New Development* may be obtained from the Planning Department or City Clerk/Records Management Department.

**2.0 Special Conditions of Approval.** In addition to the *Standard Conditions for New Development* identified in condition no. 1.0, above, the project shall comply with the following special conditions of approval:

**2.1 Time Limits.**

(a) Development Plan approval shall become null and void 2 years following the effective date of application approval, unless a building permit is issued and construction is commenced, and diligently pursued toward completion, or a time extension has been approved by the Planning Director. This condition does not supersede any individual time limits specified herein, or any other departmental conditions of approval applicable to the Project, for the performance of specific conditions or improvements.

**2.2 General Requirements.** The Project shall comply with the following general requirements:

(a) All construction documentation shall be coordinated for consistency, including, but not limited to, architectural, structural, mechanical, electrical, plumbing, landscape and irrigation, grading, utility and street improvement plans. All such plans shall be consistent with the approved entitlement plans on file with the Planning Department.

(b) The project site shall be developed in conformance with the approved plans on file with the City. Any variation from the approved plans must be reviewed and approved by the Planning Department prior to building permit issuance.

(c) The herein-listed conditions of approval from all City departments shall be included in the construction plan set for project, which shall be maintained on site during project construction.

### 2.3 Architecture.

(a) Exterior building wall materials, roof types and colors shall be shown on development construction drawings.

(b) Roof access ladders shall be located on the inside of the building.

(c) All building drainage gutters, down spouts, vents, etc., shall be completely concealed from public view or shall be architecturally compatible (decorative) with the exterior building design and color.

(d) All tower elements on the building(s) shall be fully walled and finished on all sides and include detailing appropriate to the architectural style proposed, so as to be a fully three-dimensional, four-sided element of the building, to the satisfaction of the Planning Director. The term "tower elements" means architectural elements of the building that are that are substantially taller than the adjacent parapet wall or roof, as determined by the Planning Director.

(e) At locations where changes in parapet wall height meet, the taller parapet must return into the building for a minimum distance of 6 FT, so that the actual thickness of the parapet wall cannot be observed or readily discerned.

### 2.4 Landscaping.

(a) The Project shall provide and continuously maintain landscaping and irrigation systems in compliance with the provisions of Ontario Development Code Division 6.05 (Landscaping).

(b) Comply with the conditions of approval of the Planning Department; Landscape Planning Division.

(c) Landscaping shall not be installed until the Landscape and Irrigation Construction Documentation Plans required by Ontario Development Code Division 6.05 (Landscaping) have been approved by the Landscape Planning Division.

(d) Changes to approved Landscape and Irrigation Construction Documentation Plans, which affect the character or quantity of the plant material or irrigation system design, shall be resubmitted for approval of the revision by the Landscape Planning Division, prior to the commencement of the changes.

2.5 Walls and Fences. All Project walls and fences shall comply with the requirements of Ontario Development Code Division 6.02 (Walls, Fences and Obstructions).

(a) Within industrial zoning districts, walls and fences within the front yard building setback area shall not exceed 6 feet in height, with at least 90 percent of the vertical surface open and non-view obstructing and shall be setback a minimum of 5 feet behind the street property line.

(b) Long expanses of fence or wall (50 or more FT in length) adjacent to a public right-of-way shall have offset areas (decorative pilasters or a jog in the wall) along its length and shall be architecturally designed to prevent monotony. Construction plans shall include wall plans and details that show compliance with this condition of approval.

(c) The height of a wall or fence shall be measured on the exterior side, at the highest point of the natural ground or finished grade at the base of the fence or wall to the top of the fence or wall above the same base point.

(d) For gated sites, sufficient area shall be provided in front (exterior side) of vehicular access gates, to allow stacking of at least one tractor/trailer outside of the public street right-of-way.

(e) Development plans and construction drawings shall indicate materials, colors, and height of proposed and existing walls/fences and shall include a cross-section of walls/fences indicating adjacent grades. Walls shall be designed as an integral part of the architecture for the development.

(f) Walls shall be treated with a graffiti-proof coating at locations visible to the public.

## 2.6 Refuse Storage (Trash Enclosures).

(a) All refuse shall be stored in an appropriate container. Furthermore, all refuse containers shall be stored within a City-approved enclosure, which shall be designed so as to be consistent with the building architecture on the project site.

(b) The number of enclosures, and their precise locations, dimensions, and design shall be provided consistent with the *Solid Waste Department Refuse and Recycling Planning Manual* (the manual may be obtain online at [http://www.ontarioca.gov/sites/default/files/Ontario-Files/Municipal-Utilities-Company/planning\\_manual-2016\\_update.pdf](http://www.ontarioca.gov/sites/default/files/Ontario-Files/Municipal-Utilities-Company/planning_manual-2016_update.pdf)).

(c) Signs clearly identifying all recycling and refuse collection areas, and the materials accepted for recycling shall be posted adjacent to all points of access to each trash enclosure.

(d) Trash enclosures shall be bordered by a minimum 5-FT wide planter and screened with landscaping on all exposed sides, excluding the side with bin access gates.

## 2.7 Parking, Circulation and Access.

(a) The Project shall comply with the applicable off-street parking, loading and lighting requirements of City of Ontario Development Code Division 6.03 (Off-Street Parking and Loading).

(b) All drive approaches shall be provided with an enhanced pavement treatment. The enhanced paving shall extend from the back of the approach apron, into the site, to the first intersecting drive aisle or parking space.

(c) Areas provided to meet the City's parking requirements, including off-street parking and loading spaces, access drives, and maneuvering areas, shall not be used for the outdoor storage of materials and equipment, nor shall it be used for any other purpose than parking.

(d) The required number of off-street parking spaces and/or loading spaces shall be provided at the time of site and/or building occupancy. All parking and loading spaces shall be maintained in good condition for the duration of the building or use.

(e) Parking spaces specifically designated and conveniently located for use by the physically disabled shall be provided pursuant to current accessibility regulations contained in State law (CCR Title 24, Part 2, Chapters 2B71, and CVC Section 22507.8).

(f) Implementation and operation of access restrictions such as gates and/or barrier arms shall provide proper access to police, fire, emergency services and waste and recycling collection services, subject to City review and approval.

(g) The use of compact parking spaces is not permitted.

(h) Wheel stops shall be provided where necessary, to protect structures and parked vehicles.

(i) Striping of parking spaces, aisles, and driveways conforming to the provisions of Development Code Division 6.03 (Off-Street Parking and Loading), and directional signs conforming to the provisions of Development Code Division 8.01 (Sign Regulations), shall be provided.

(j) Bicycle parking facilities, including bicycle racks, lockers, and other secure facilities, shall be provided in conjunction with development projects pursuant to current regulations contained in CALGreen (CAC Title 24, Part 11). Final design and placement of bicycle parking facilities shall be subject to Planning Department review and approval.

## **2.8** Outdoor Loading and Storage Areas.

(a) Loading facilities shall be designed and constructed pursuant to Development Code Division 6.03 (Off-Street Parking and Loading).

(b) Areas designated for off-street parking, loading, and vehicular circulation and maneuvering, shall not be used for the outdoor storage of materials or equipment.

(c) Outdoor loading and storage areas, and loading doors, shall be screened from public view pursuant to the requirements of Development Code Paragraph 6.02.025.A.2 (Screening of Outdoor Loading and Storage Areas, and Loading Doors) Et Seq.

(d) Outdoor loading and storage areas shall be provided with gates that are view-obstructing by one of the following methods:

(i) Construct gates with a perforated metal sheet affixed to the inside of the gate surface (50 percent screen); or

(ii) Construct gates with minimum one-inch square tube steel pickets spaced at maximum 2-inches apart.

(e) The development shall maintain a minimum of 47 off-street trailer parking spaces. Dock-high loading zones intended for tractor-trailers shall have a clear dimension of 12 FT wide by 45 FT long. All at-grade loading doors shall have a 12-FT wide by 18-FT deep unobstructed loading zone directly in front of the door, free of access drives.

(f) Truck loading and maneuvering areas in front of dock-high loading areas shall require a clear area of 120 FT.

(g) Loading areas shall be designed to provide for backing and maneuvering completely on-site, and not from a public street.

(h) Loading areas shall not encroach into landscape or building setbacks.

(i) All loading doors, areas, and activities shall be completely screened from public view, as well as from public, residential, and commercial uses, whether on the same lot or on neighboring properties, by a decorative masonry wall. Chain link fencing with slats or tennis windscreen material shall not be used as screening for storage areas.

(j) The height of screen and wing walls shall be determined by a sight-line analysis/wall section plan. The sight-line analysis/wall section plan shall show that all roll-up doors will be screened from view from adjoining parcels and public streets. The following criteria shall apply:

(i) Roll-up doors and openings in the screen wall shall be positioned such that the doors are not visible from the street.

(ii) Screening shall include a combination of screen walls, sight-obscuring gates, ornamental landscaping, and/or portions of the building such that the roll-up doors are not visible from the public street.

(iii) Upon Planning Department request, a “horizontal height mockup” shall be constructed for review and approval by Planning Department staff to verify adequacy of screen wall height from the freeway and streets. Mockup should be located at the lowest elevation on the site.

(k) The minimum gate height for screen wall openings shall be established based upon the corresponding wall height, as follows:

<i>Screen Wall Height</i>	<i>Minimum Gate Height</i>
14 feet:	10 feet
12 feet:	9 feet
10 feet:	8 feet

<b>Screen Wall Height</b>	<b>Minimum Gate Height</b>
8 feet:	8 feet
6 feet:	6 feet

**2.9** Site Lighting.

(a) All off-street parking facilities shall be provided with nighttime security lighting pursuant to Ontario Municipal Code Section 4-11.08 (Special Residential Building Provisions) and Section 4-11.09 (Special Commercial/Industrial Building Provisions), designed to confine emitted light to the parking areas. Parking facilities shall be lighted from sunset until sunrise, daily, and shall be operated by a photocell switch.

(b) Unless intended as part of a master lighting program, no operation, activity, or lighting fixture shall create illumination on any adjacent property.

**2.10** Mechanical and Rooftop Equipment.

(a) All exterior roof-mounted mechanical, heating and air conditioning equipment, and all appurtenances thereto, shall be completely screened from public view by parapet walls or roof screens that are architecturally treated so as to be consistent with the building architecture.

(b) All ground-mounted utility equipment and structures, such as tanks, transformers, HVAC equipment, and backflow prevention devices, shall be located out of view from a public street, or adequately screened through the use of landscaping and/or decorative low garden walls.

**2.11** Security Standards. The Project shall comply with all applicable requirements of Ontario Municipal Code Title 4 (Public Safety), Chapter 11 (Security Standards for Buildings).

**2.12** Signs.

(a) All Project signage shall comply with the requirements of Ontario Development Code Division 8.1 (Sign Regulations).

**2.13** Sound Attenuation. The Project shall be constructed and operated in a manner so as not to exceed the maximum interior and exterior noise levels set forth in Ontario Municipal Code Title 5 (Public Welfare, Morals, and Conduct), Chapter 29 (Noise).

**2.14** Environmental Requirements.

(a) The environmental impacts of this project were previously reviewed in conjunction with File No. PSP18-001, a Specific Plan for which the Merrill Commerce Center Specific Plan Environmental Impact Report (State Clearinghouse No. 2019049079) was previously adopted by the City Council on 2/2/2021. This application introduces no new significant environmental impacts. The City's "Guidelines for the Implementation of the California Environmental Quality Act ("CEQA")" provide for the use of a single environmental assessment in situations where the impacts of subsequent projects are adequately analyzed. The previously

adopted mitigation measures shall be a condition of project approval and are incorporated herein by this reference.

**(b)** The Project shall be designed and constructed in compliance with the associated Greenhouse Gas Reduction Measures Screening Table for this Project.

**(c)** If human remains are found during project grading/excavation/construction activities, the area shall not be disturbed until any required investigation is completed by the County Coroner and Native American consultation has been completed (if deemed applicable).

**(d)** If any archeological or paleontological resources are found during project grading/excavation/construction, the area shall not be disturbed until the significance of the resource is determined. If determined to be significant, the resource shall be recovered by a qualified archeologist or paleontologist consistent with current standards and guidelines, or other appropriate measures implemented.

**2.15** Indemnification. The applicant shall agree to defend, indemnify and hold harmless, the City of Ontario or its agents, officers, and employees from any claim, action or proceeding against the City of Ontario or its agents, officers or employees to attack, set aside, void or annul any approval of the City of Ontario, whether by its City Council, Planning Commission or other authorized board or officer. The City of Ontario shall promptly notify the applicant of any such claim, action or proceeding, and the City of Ontario shall cooperate fully in the defense.

**2.16** Additional Fees.

**(a)** Within 5 days following final application approval, the Notice of Determination (“NOD”) filing fee shall be provided to the Planning Department. The fee shall be paid by check, made payable to the “Clerk of the Board of Supervisors”, which shall be forwarded to the San Bernardino County Clerk of the Board of Supervisors, along with all applicable environmental forms/notices, pursuant to the requirements of the California Environmental Quality Act (“CEQA”). Failure to provide said fee within the time specified will result in the extension of the statute of limitations for the filing of a CEQA lawsuit from 30 days to 180 days.

**(b)** After the Project’s entitlement approval, and prior to issuance of final building permits, the Planning Department’s Plan Check and Inspection fees shall be paid at the rate established by resolution of the City Council.

**2.17** Public Art. The Project is subject to the requirements of the City’s Public Art Ordinance (Ontario Municipal Code Section 5-33.05. Private Art for Public Enjoyment in Commercial and Industrial Development Projects).

**2.18** Final Occupancy. The Project Architect of record will certify that construction of each building site and the exterior elevations of each structure shall be completed in compliance with the approved plans. Any deviation to approved plans shall require a resubmittal to the Planning Department for review and approval prior to construction. The Occupancy Release Request Form/Architect Certificate of Compliance shall be provided prior to final occupancy. After the receipt of this Certification, the Planning Department will conduct a final site and exterior elevations inspection. The Owner’s Representative and Contractor shall be present.

**2.19** Additional Requirements.

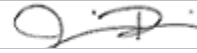
(a) The Project requires minimum 251 passenger vehicle parking spaces and provides 167 passenger vehicle parking spaces within the passenger vehicle only parking lots on the east and west sides of the proposed building. The remaining 84 parking spaces shall be provided within the truck yard area when required by tenant operations, provided a minimum of 14 trailer parking spaces are maintained.



**CITY OF ONTARIO**  
**LANDSCAPE PLANNING DIVISION**  
 303 East "B" Street, Ontario, CA 91764

**CONDITIONS OF APPROVAL**

Sign Off



08/03/2023

Jamie Richardson, Sr. Landscape Planner

Date

Reviewer's Name:

**Jamie Richardson, Sr. Landscape Planner**

Phone:

**(909) 395-2615**

D.A.B. File No.:

PDEV22-017

Case Planner:

Thomas Grahn

Project Name and Location:

Industrial Building  
 5355 East Airport Drive

Applicant/Representative:

Prologis – John Carter [jcarter@prologis.com](mailto:jcarter@prologis.com) (562) 345-9237  
 3546 Concours Street, Suite 100  
 Ontario, CA 91764



**Preliminary Plans (dated 7/14/2023) meet the Standard Conditions for New Development and have been approved considering that the following conditions below be met upon submittal of the landscape construction documents.**



**Preliminary Plans (dated) have not been approved. Corrections noted below are required before Preliminary Landscape Plan approval.**

**A RESPONSE SHEET IS REQUIRED WITH RESUBMITTAL OR PLANS WILL BE RETURNED AS INCOMPLETE.**

Landscape construction plans with plan check number may be emailed to:

[landscapeplancheck@ontarioca.gov](mailto:landscapeplancheck@ontarioca.gov)

**PREVIOUS COMMENTS – Fourth Request**

Civil/ Site Plans

1. Before permit issuance, stormwater infiltration devices located in landscape areas shall be reviewed and plans approved by the Landscape Planning Division. Any stormwater devices in parkway areas shall not displace street trees.
2. Show and dimension transformers set back 5' from paving all sides. Coordinate with landscape plans.
3. Note for compaction to be no greater than 85% at landscape areas. All finished grades at 1 ½" below finished surfaces. Slopes to be maximum 3:1.
4. Dimension, show and call out for step-outs at parking spaces adjacent to planters; a 12" wide monolithic concrete curb, DG paving or pavers with edging.
5. Add Note to Grading and Landscape Plans: Landscape areas where compaction has occurred due to grading activities and where trees or stormwater infiltration areas are located shall be loosened by soil fracturing. For trees, a 12"x12"x18" deep area; for stormwater infiltration, the entire area shall be loosened. Add the following information on the plans: The backhoe method of soil fracturing shall be used to break up compaction. A 4" layer of Compost is spread over the soil surface before fracturing is begun. The backhoe shall dig into the soil lifting and then drop the soil immediately back into the hole. The bucket then moves to the adjacent soil and repeats. The Compost falls into the spaces between the soil chunks created. Fracturing shall leave the soil surface quite rough with large soil clods. These must be broken by additional tilling. Tilling in more Compost to the surface after fracturing per the soil report will help create an A horizon soil. Imported or reused Topsoil can be added on top of the fractured soil as needed for grading. The Landscape Architect shall be present during this process and provide

certification of the soil fracturing. For additional reference, see Urban Tree Foundation – Planting Soil Specifications

#### Landscape Plans

6. During plan check, coordinate with Ontario Municipal Utilities Company (OMUC) to submit irrigation plans for recycled water systems to [omucwaterquality@ontarioca.gov](mailto:omucwaterquality@ontarioca.gov). OMUC shall review and approve irrigation systems utilizing recycled water prior to final landscape approval. Submit an electronic approval letter or memo from OMUC with resubmittal of the landscape package.
7. Landscape construction plans shall meet the requirements of the Landscape Development Guidelines. See <http://www.ontarioca.gov/landscape-planning/standards>
8. After a project's entitlement approval, the applicant shall pay all applicable fees for landscape plan check and inspections at a rate established by resolution of the City Council. Landscape construction plans with building permit number for plan check may be emailed to: [landscapeplancheck@ontarioca.gov](mailto:landscapeplancheck@ontarioca.gov)

# AIRPORT LAND USE COMPATIBILITY PLANNING

## CONSISTENCY DETERMINATION REPORT



Project File No.: PDEV22-017

Address: 5355 East Airport Drive

APN: 0238-052-29 & 20

Existing Land Use: Grain manufacturing

Proposed Land Use: Development Plan to construct 270,337 SF industrial building

Site Acreage: 13.08 Proposed Structure Height: 50 FT

ONT-IAC Project Review: N/A

Airport Influence Area: ONT

Reviewed By: Lorena Mejia

Contact Info: 909-395-2276

Project Planner: Thomas Grahn

Date: 1/30/2023

CD No.: 2022-061

PALU No.: N/A

### The project is impacted by the following ONT ALUCP Compatibility Zones:

Safety	Noise Impact	Airspace Protection	Overflight Notification
<input type="radio"/> Zone 1	<input type="radio"/> 75+ dB CNEL	<input type="checkbox"/> High Terrain Zone	<input type="checkbox"/> Avigation Easement Dedication
<input type="radio"/> Zone 1A	<input type="radio"/> 70 - 75 dB CNEL	<input checked="" type="checkbox"/> FAA Notification Surfaces	<input checked="" type="checkbox"/> Recorded Overflight Notification
<input type="checkbox"/> Zone 2	<input type="checkbox"/> 65 - 70 dB CNEL	<input checked="" type="checkbox"/> Airspace Obstruction Surfaces	<input type="checkbox"/> Real Estate Transaction Disclosure
<input type="checkbox"/> Zone 3	<input checked="" type="checkbox"/> 60 - 65 dB CNEL	<input type="checkbox"/> Airspace Avigation Easement Area	
<input type="checkbox"/> Zone 4		Allowable Height: <u>170 FT</u>	
<input type="checkbox"/> Zone 5			

### The project is impacted by the following Chino ALUCP Safety Zones:

Zone 1   
  Zone 2   
  Zone 3   
  Zone 4   
  Zone 5   
  Zone 6

Allowable Height: \_\_\_\_\_

## CONSISTENCY DETERMINATION

This proposed Project is:  Exempt from the ALUCP   
 Consistent   
 Consistent with Conditions   
 Inconsistent

The proposed project is located within the Airport Influence Area of Ontario International Airport (ONT) and was evaluated and found to be consistent with the policies and criteria of the Airport Land Use Compatibility Plan (ALUCP) for ONT.

Airport Planner Signature: \_\_\_\_\_



**ENGINEERING DEPARTMENT  
CONDITIONS OF APPROVAL**

(Land Development Division, Environmental Section, Traffic & Transportation Division, Ontario Municipal Utilities Company and Broadband Operations & Investment and Revenue Resources Department Conditions incorporated)

<input checked="" type="checkbox"/> <b>DEVELOPMENT PLAN</b>	<input type="checkbox"/> PARCEL MAP	<input type="checkbox"/> TRACT MAP
<input type="checkbox"/> OTHER	<input type="checkbox"/> FOR CONDOMINIUM PURPOSES	
<b>PROJECT FILE NO. <u>PDEV22-017</u></b>		
<b>RELATED FILE NO(S). _____</b>		
<input type="checkbox"/> ORIGINAL <input checked="" type="checkbox"/> <b>REVISED: <u>3/27/2024</u></b>		

**CITY PROJECT ENGINEER & PHONE NO:** Frederick Addison (909) 395-2125

**CITY PROJECT PLANNER & PHONE NO:** Thomas Grahn (909) 395-2413

**DAB MEETING DATE:** 03/18/24 04/15/24

**PROJECT NAME / DESCRIPTION:** **A development plan to construct a 270,337 square foot industrial building on 13.08 acres of land (0.47 FAR) located at 5355 East Airport Drive, within the IH (heavy Industrial) zoning districts (APNs: 0238-052-28 & 0238-052-20)**

**LOCATION:** **5355 East Airport Drive**

**APPLICANT:** **Prologis**

**REVIEWED BY:** Raymond Lee 3/27/24  
**Raymond Lee, P.E.** **Date**  
**Assistant City Engineer**

**APPROVED BY:** [Signature] 3-27-24  
**Khoi Do, P.E.** **Date**  
**City Engineer**



THIS PROJECT SHALL COMPLY WITH THE REQUIREMENTS SET FORTH IN THE GENERAL STANDARD CONDITIONS OF APPROVAL ADOPTED BY THE CITY COUNCIL (RESOLUTION NO. 2017-027) AND THE PROJECT SPECIFIC CONDITIONS OF APPROVAL SPECIFIED HEREIN. ONLY APPLICABLE CONDITIONS OF APPROVAL ARE CHECKED. THE APPLICANT SHALL BE RESPONSIBLE FOR THE COMPLETION OF ALL APPLICABLE CONDITIONS OF APPROVAL PRIOR TO FINAL MAP OR PARCEL MAP APPROVAL, ISSUANCE OF PERMITS AND/OR OCCUPANCY CLEARANCE, AS SPECIFIED IN THIS REPORT.

**1. PRIOR TO FINAL MAP OR PARCEL MAP APPROVAL, APPLICANT SHALL:** Check When Complete

- 1.01 Dedicate to the City of Ontario, the right-of-way, described below:   
\_\_\_\_\_ feet on \_\_\_\_\_  
Property line corner 'cut-back' required at the intersection of \_\_\_\_\_  
and \_\_\_\_\_.
- 1.02 Dedicate to the City of Ontario, the following easement(s): \_\_\_\_\_   
\_\_\_\_\_
- 1.03 Restrict vehicular access to the site as follows: \_\_\_\_\_
- 1.04 Vacate the following street(s) and/or easement(s): 
  - A. All interfering on-site easements shall be quitclaimed, vacated, and/or submit non-interference letter from affected owner/utility company.
- 1.05 Submit a copy of a recorded private reciprocal use agreement or easement. The agreement or easement shall ensure, at a minimum, common ingress and egress and joint maintenance of all common access areas and drive aisles.
- 1.06 Provide (original document) Covenants, Conditions and Restrictions (CC&Rs) as applicable to the project and as approved by the City Attorney and the Engineering and Planning Departments, ready for recordation with the County of San Bernardino. The CC&Rs shall provide for, but not be limited to, common ingress and egress, joint maintenance responsibility for all common access improvements, common facilities, parking areas, utilities, median and landscaping improvements and drive approaches, in addition to maintenance requirements established in the Water Quality Management Plan (WQMP), as applicable to the project. The CC&Rs shall also address the maintenance and repair responsibility for public improvements/utilities (sewer, water, storm drain, recycled water, etc.) located within open space/easements. In the event of any maintenance or repair of these facilities, the City shall only restore disturbed areas to current City Standards.
- 1.07 For all development occurring south of the Pomona Freeway (60-Freeway) and within the specified boundary limits (per Boundary Map found at <http://tceplumecleanup.com/>), the property developer/owner is made aware of the South Archibald Trichloroethylene (TCE) Plume "Disclosure Letter". Property owner may wish to provide this Letter as part of the Real Estate Transfer Disclosure requirements under California Civil Code Section 1102 et seq. This may include notifications in the Covenants, Conditions and Restrictions (CC&Rs) or other documents related to property transfer and disclosures. Additional information on the plume is available from the Santa Ana Regional Water Quality Control Board at [http://geotracker.waterboards.ca.gov/profile\\_report?global\\_id=T10000004658](http://geotracker.waterboards.ca.gov/profile_report?global_id=T10000004658).
- 1.08 File an application for Reapportionment of Assessment, together with payment of a reapportionment processing fee, for each existing assessment district listed below. Contact the Financial Services Department at (909) 395-2124 regarding this requirement. 
  - (1) \_\_\_\_\_
  - (2) \_\_\_\_\_
- 1.09 Prepare a fully executed Subdivision Agreement (on City approved format and forms) with accompanying security as required, or complete all public improvements.



- 1.10 Provide a monument bond (i.e. cash deposit) in an amount calculated by the City's approved cost estimate spreadsheet (available for download on the City's website: [www.ontarioca.gov](http://www.ontarioca.gov)) or as specified in writing by the applicant's Registered Engineer or Licensed Land Surveyor of Record and approved by the City Engineer, whichever is greater.
- 1.11 Provide a preliminary title report current to within 30 days.
- 1.12 File an application, together with an initial deposit (if required), to establish a Community Facilities District (CFD) pursuant to the Mello-Roos Community Facilities District Act of 1982. The application and fee shall be submitted a minimum of four (4) months prior to final subdivision map approval, and the CFD shall be established prior to final subdivision map approval or issuance of building permits, whichever occurs first. The CFD shall be established upon the subject property to provide funding for various City services. An annual special tax shall be levied upon each parcel or lot in an amount to be determined. The special tax will be collected along with annual property taxes. The City shall be the sole lead agency in the formation of any CFD. Contact Investment and Revenue Resources at (909) 395-2341 to initiate the CFD application process.
- 1.13 Ontario Ranch Developments: 
  - 1) Provide evidence of final cancellation of Williamson Act contracts associated with this tract, prior to approval of any final subdivision map. Cancellation of contracts shall have been approved by the City Council.
  - 2) Provide evidence of sufficient storm water capacity availability equivalents (Certificate of Storm Water Treatment Equivalents).
  - 3) Provide evidence of sufficient water availability equivalents (Certificate of Net MDD Availability).
- 1.14 Other conditions: \_\_\_\_\_

**2. PRIOR TO ISSUANCE OF ANY PERMITS, APPLICANT SHALL:**

**A. GENERAL  
 (Permits includes Grading, Building, Demolition and Encroachment)**

- 2.01 Record Parcel Map/Tract Map No. \_\_\_\_\_ pursuant to the Subdivision Map Act and in accordance with the City of Ontario Municipal Code.
- 2.02 Submit a PDF of the recorded map to the City Engineer's office.
- 2.03 Note that the subject parcel is a recognized parcel in the City of Ontario per \_\_\_\_\_.
- 2.04 Note that the subject parcel is an 'unrecognized' parcel in the City of Ontario and shall require a Certificate of Compliance to be processed unless a deed is provided confirming the existence of the parcel prior to the date of March 4, 1972.
- 2.05 Apply for a: 
  - Certificate of Compliance with a Record of Survey;
  - Lot Line Adjustment to merge APNs 0238-052-29, 0238-052-20, & 0238-052-22 (Record a Conforming Deed with the County of San Bernardino within six months of the recordation of the Lot Line Adjustment to conform the new LLA legal description. Submit a copy of the recorded Conforming Deed to the Engineering Department.);
  - Make a Dedication of Easement.



- 2.06 Provide (original document) Covenants, Conditions and Restrictions (CC&R's), as applicable to the project, and as approved by the City Attorney and the Engineering and Planning Departments, ready for recordation with the County of San Bernardino. The CC&R's shall provide for, but not be limited to, common ingress and egress, joint maintenance of all common access improvements, common facilities, parking areas, utilities and drive approaches in addition to maintenance requirements established in the Water Quality Management Plan (WQMP), as applicable to the project.
  
- 2.07 For all development occurring south of the Pomona Freeway (60-Freeway) and within the specified boundary limits (per Boundary Map found at <http://tceplumecleanup.com/>), the property developer/owner is made aware of the South Archibald Trichloroethylene (TCE) Plume "Disclosure Letter". Property owner may wish to provide this Letter as part of the Real Estate Transfer Disclosure requirements under California Civil Code Section 1102 et seq. This may include notifications in the Covenants, Conditions and Restrictions (CC&Rs) or other documents related to property transfer and disclosures. Additional information on the plume is available from the Santa Ana Regional Water Quality Control Board at [http://geotracker.waterboards.ca.gov/profile\\_report?global\\_id=T10000004658](http://geotracker.waterboards.ca.gov/profile_report?global_id=T10000004658).
  
- 2.08 **Submit a soils/geology report.**
  
- 2.09 **Other Agency Permit/Approval: Submit a copy of the approved permit and/or other form of approval of the project from the following agency or agencies:** 
  - State of California Department of Transportation (Caltrans)
  - San Bernardino County Road Department (SBCRD)
  - San Bernardino County Flood Control District (SBCFCD)
  - Federal Emergency Management Agency (FEMA)
  - Cucamonga Valley Water District (CVWD) for sewer/water service
  - United States Army Corps of Engineers (USACE)
  - California Department of Fish & Game
  - Inland Empire Utilities Agency (IEUA) – for connection to existing IEUA Recycled Water Line**
  - Other: \_\_\_\_\_
  
- 2.10 **Dedicate to the City of Ontario the right-of-way described below:** 
  - **20 feet on East Airport Drive to achieve ultimate ROW of 50 feet on property frontage of APN 0238-052-29.**

Property line corner 'cut-back' required at the intersection of \_\_\_\_\_  
 and \_\_\_\_\_.
  
- 2.11 Dedicate to the City of Ontario the following easement(s): \_\_\_\_\_
  
- 2.12 **Vacate the following street(s) and/or easement(s):** 
  - A. All interfering on-site easements shall be quitclaimed, vacated, and/or submit non-interference letter from affected owner/utility company.**
  
- 2.13 **Ontario Ranch Developments:** 
  - 1) Submit a copy of the permit from the San Bernardino County Health Department to the Engineering Department and the Ontario Municipal Utilities Company (OMUC) for the destruction/abandonment of the on-site water well. The well shall be destroyed/abandoned in accordance with the San Bernardino County Health Department guidelines.
  - 2) Make a formal request to the City of Ontario Engineering Department for the proposed temporary use of an existing agricultural water well for purposes other than agriculture, such as grading, dust control, etc. Upon approval, the Applicant shall enter into an agreement with the City of Ontario and pay any applicable fees as set forth by said agreement.



3) Design proposed retaining walls to retain up to a maximum of three (3) feet of earth. In no case shall a wall exceed an overall height of nine (9) feet (i.e. maximum 6-foot high wall on top of a maximum 3-foot high retaining wall).

- 2.14 **Submit a security deposit to the Engineering Department to guarantee construction of the public improvements required herein valued at 100% of the approved construction cost estimate. Security deposit shall be in accordance with the City of Ontario Municipal Code. Security deposit will be eligible for release, in accordance with City procedure, upon completion and acceptance of said public improvements.**
- 2.15 **The applicant/developer shall submit all necessary survey documents prepared by a Licensed Surveyor registered in the State of California detailing all existing survey monuments in and around the project site. These documents are to be reviewed and approved by the City Survey Office.**
- 2.16 **Pay all Development Impact Fees (DIF) to the Building Department. Storm Drain Development Impact Fee, approximately \$293,401.95, shall be paid to the Building Department. Final fee shall be determined based on the approved site plan and the DIF rate at the time of payment.**
- 2.17 **Other conditions:** 
  - **Provide a preliminary title report current to within 30 days.**





**B. PUBLIC IMPROVEMENTS**  
 (See attached Exhibit 'A' for plan check submittal requirements.)

2.18 Design and construct full public improvements in accordance with the City of Ontario Municipal Code, current City standards and specifications, master plans and the adopted specific plan for the area, if any. These public improvements shall include, but not be limited to, the following (checked boxes):

Improvement	East Airport Drive <sup>(3)</sup>			
<b>Curb and Gutter</b>	<input checked="" type="checkbox"/> New; <b>36 ft. from C/L</b> <sup>(1)</sup> <input type="checkbox"/> Replace damaged <input checked="" type="checkbox"/> Remove and replace <sup>(2)</sup>	<input type="checkbox"/> New; ___ ft. from C/L <input type="checkbox"/> Replace damaged <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New; ___ ft. from C/L <input type="checkbox"/> Replace damaged <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New; ___ ft. from C/L <input type="checkbox"/> Replace damaged <input type="checkbox"/> Remove and replace
<b>AC Pavement</b>	<input type="checkbox"/> Replacement <input checked="" type="checkbox"/> <b>Widen 11 additional feet along frontage, including pavm't Transitions for APN: 0238-052-29</b>	<input type="checkbox"/> Replacement <input type="checkbox"/> Widen ___ additional feet along frontage, including pavm't transitions	<input type="checkbox"/> Replacement <input type="checkbox"/> Widen ___ additional feet along frontage, including pavm't transitions	<input type="checkbox"/> Replacement <input type="checkbox"/> Widen ___ additional feet along frontage, including pavm't transitions
PCC Pavement (Truck Route Only)	<input type="checkbox"/> New <input type="checkbox"/> Modify existing	<input type="checkbox"/> New <input type="checkbox"/> Modify existing	<input type="checkbox"/> New <input type="checkbox"/> Modify existing	<input type="checkbox"/> New <input type="checkbox"/> Modify existing
<b>Drive Approach</b>	<input checked="" type="checkbox"/> <b>New</b> <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace
<b>Sidewalk</b>	<input checked="" type="checkbox"/> <b>New</b> <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace
ADA Access Ramp	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace
<b>Parkway</b>	<input checked="" type="checkbox"/> <b>Trees</b> <input checked="" type="checkbox"/> <b>Landscaping (w/irrigation)</b>	<input type="checkbox"/> Trees <input type="checkbox"/> Landscaping (w/irrigation)	<input type="checkbox"/> Trees <input type="checkbox"/> Landscaping (w/irrigation)	<input type="checkbox"/> Trees <input type="checkbox"/> Landscaping (w/irrigation)
Raised Landscaped Median	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace



<b>Fire Hydrant</b>	<input checked="" type="checkbox"/> <b>New / Upgrade</b> <input type="checkbox"/> Relocation	<input type="checkbox"/> New / Upgrade <input type="checkbox"/> Relocation	<input type="checkbox"/> New / Upgrade <input type="checkbox"/> Relocation	<input type="checkbox"/> New / Upgrade <input type="checkbox"/> Relocation
<b>Sewer (see Sec. 2.C)</b>	<input checked="" type="checkbox"/> <b>Main</b> <input checked="" type="checkbox"/> <b>Lateral</b>	<input type="checkbox"/> Main <input type="checkbox"/> Lateral	<input type="checkbox"/> Main <input type="checkbox"/> Lateral	<input type="checkbox"/> Main <input type="checkbox"/> Lateral
<b>Water (see Sec. 2.D)</b>	<input type="checkbox"/> Main <input checked="" type="checkbox"/> <b>Service</b>	<input type="checkbox"/> Main <input type="checkbox"/> Service	<input type="checkbox"/> Main <input type="checkbox"/> Service	<input type="checkbox"/> Main <input type="checkbox"/> Service
<b>Recycled Water (see Sec. 2.E)</b>	<input checked="" type="checkbox"/> <b>Main</b> <input checked="" type="checkbox"/> <b>Service</b>	<input type="checkbox"/> Main <input type="checkbox"/> Service	<input type="checkbox"/> Main <input type="checkbox"/> Service	<input type="checkbox"/> Main <input type="checkbox"/> Service
<b>Traffic Signal System (see Sec. 2.F)</b>	<input type="checkbox"/> New <input type="checkbox"/> Modify existing	<input type="checkbox"/> New <input type="checkbox"/> Modify existing	<input type="checkbox"/> New <input type="checkbox"/> Modify existing	<input type="checkbox"/> New <input type="checkbox"/> Modify existing
<b>Traffic Signing and Striping (see Sec. 2.F)</b>	<input checked="" type="checkbox"/> <b>New</b> <input type="checkbox"/> Modify existing	<input type="checkbox"/> New <input type="checkbox"/> Modify existing	<input type="checkbox"/> New <input type="checkbox"/> Modify existing	<input type="checkbox"/> New <input type="checkbox"/> Modify existing
<b>Street Light (see Sec. 2.F)</b>	<input checked="" type="checkbox"/> <b>New / Upgrade</b> <input type="checkbox"/> Relocation	<input type="checkbox"/> New / Upgrade <input type="checkbox"/> Relocation	<input type="checkbox"/> New / Upgrade <input type="checkbox"/> Relocation	<input type="checkbox"/> New / Upgrade <input type="checkbox"/> Relocation
<b>Bus Stop Pad or Turn-out (see Sec. 2.F)</b>	<input type="checkbox"/> New <input type="checkbox"/> Modify existing	<input type="checkbox"/> New <input type="checkbox"/> Modify existing	<input type="checkbox"/> New <input type="checkbox"/> Modify existing	<input type="checkbox"/> New <input type="checkbox"/> Modify existing
<b>Storm Drain (see Sec. 2G)</b>	<input type="checkbox"/> Main <input type="checkbox"/> Lateral	<input type="checkbox"/> Main <input type="checkbox"/> Lateral	<input type="checkbox"/> Main <input type="checkbox"/> Lateral	<input type="checkbox"/> Main <input type="checkbox"/> Lateral
<b>Fiber Optics (see Sec. 2K)</b>	<input checked="" type="checkbox"/> <b>Conduit / Appurtenances</b>	<input type="checkbox"/> Conduit / Appurtenances	<input type="checkbox"/> Conduit / Appurtenances	<input type="checkbox"/> Conduit / Appurtenances
<b>Overhead Utilities</b>	<input checked="" type="checkbox"/> <b>Underground</b> <input type="checkbox"/> Relocate	<input type="checkbox"/> Underground <input type="checkbox"/> Relocate	<input type="checkbox"/> Underground <input type="checkbox"/> Relocate	<input type="checkbox"/> Underground <input type="checkbox"/> Relocate
<b>Removal of Improvements</b>	_____	_____	_____	_____
<b>Other Improvements</b>	_____	_____	_____	_____

**Specific notes for improvements listed in item no. 2.18, above:**

1. From West Property Line to about 399' Easterly.
2. From East Property Line to about 813' Westerly.
3. New curb & gutter, sidewalk, parkway is required for any removal of driveways.



- 2.19 **Construct a 2" asphalt concrete (AC) grind and overlay on the following street(s):** 
  - 1. **East Airport Drive along property frontage from curb to centerline.**
- 2.20 Reconstruction of the full pavement structural section, per City of Ontario Standard Drawing number 1011, may be required based on the existing pavement condition and final street design. Minimum limits of reconstruction shall be along property frontage, from street centerline to curb/gutter.
- 2.21 Make arrangements with the Cucamonga Valley Water District (CVWD) to provide  water service  sewer service to the site. This property is within the area served by the CVWD and Applicant shall provide documentation to the City verifying that all required CVWD fees have been paid.
- 2.22 **Overhead utilities shall be under-grounded, in accordance with Title 7 of the City's Municipal Code (Ordinance No. 2804 and 2892). Developer may pay in-lieu fee, for undergrounding of utilities in accordance with Section 7-7.302.e of the City's Municipal Code based on estimate approved by the City Engineer.**
- 2.23 Other conditions:   
\_\_\_\_\_

**C. SEWER**

- 2.24 A \_\_\_\_\_ inch sewer main is available for connection by this project in \_\_\_\_\_   
(Ref: Sewer Drawing Number: \_\_\_\_\_)
- 2.25 **Design and construct a sewer main extension. A sewer main is not available for direct connection. The closest main is approximately 20 feet away. (Ref: Sewer Drawing Number: S10194)**
- 2.26 Submit documentation that shows expected peak loading values for modeling the impact of the subject project to the existing sewer system. The project site is within a deficient public sewer system area. Applicant shall be responsible for all costs associated with the preparation of the model. Based on the results of the analysis, Applicant may be required to mitigate the project impact to the deficient public sewer system, including, but not limited to, upgrading of existing sewer main(s), construction of new sewer main(s) or diversion of sewer discharge to another sewer.
- 2.27 **Other conditions:** 
  - 1. **See attached Exhibit B for additional Sewer Conditions of approval from OMUC.**

**D. WATER**

- 2.28 **A 12 inch water main is available for connection by this project in East Airport Drive. (Ref: Water Drawing Number: W11120 & W11121)**
- 2.29 Design and construct a water main extension. A water main is not available for direct connection. The closest main is approximately \_\_\_\_\_ feet away.
- 2.30 **Other conditions:** 
  - 1. **See attached Exhibit B for additional Water Conditions of approval from OMUC.**

**E. RECYCLED WATER**

- 2.31 **An 8-inch recycled IEUA recycled water main is available for connection by this project west of Wineville Avenue.**
- 2.32 **Design and construct an on-site recycled water system for this project.**
- 2.33 Design and construct an on-site recycled water ready system for this project. A recycled water main does not currently exist in the vicinity of this project but is planned for the near future. If Applicant would like to connect to this recycled water main when it becomes available, the cost for the connection shall be borne solely by the Applicant.



- 2.34 Submit one (1) electronic copy, in PDF format, of the Engineering Report (ER), for the use of recycled water to OMUC's Water Quality Programs at [OMUCWQPlanCheck@ontarioca.gov](mailto:OMUCWQPlanCheck@ontarioca.gov) for review and subsequent submittal to the California State Water Board (Division of Drinking Water) for final approval.

Note: Review and approval process may take up to three (3) months. Contact the OMUC's Water Quality Programs at (909) 395-2678 or email [OMUCWQPlanCheck@ontarioca.gov](mailto:OMUCWQPlanCheck@ontarioca.gov) regarding this requirement.

- 2.35 Submit one (1) electronic copy, in PDF format, of the Landscape Plans (on-site & off-site) to OMUC's Water Quality Programs at [OMUCWQPlanCheck@ontarioca.gov](mailto:OMUCWQPlanCheck@ontarioca.gov) for review and approval.
- 2.36 Other conditions:
1. See attached Exhibit B for additional Recycled Water Conditions of approval from OMUC.

#### F. TRAFFIC / TRANSPORTATION

- 2.37 Submit a focused traffic impact study, prepared and signed by a Traffic/Civil Engineer registered in the State of California. The study shall address, but not be limited to, the following issues as required by the City Engineer:
1. On-site and off-site circulation
  2. Traffic level of service (LOS) at 'build-out' and future years
  3. Impact at specific intersections as selected by the City Engineer
- 2.38 New traffic signal installations shall be added to Southern California Edison (SCE) customer account number # 2-20-044-3877.
- 2.39 Other conditions:
1. The Applicant/Developer shall be responsible to design and construct street improvements along property frontage on Airport Drive in accordance with conditions issued by City's Land Development Division. These, and all other street improvements required herein, shall include, but not be limited to, concrete curb and gutter, sidewalk, LED street lights, signing and striping, and parkway landscaping.
  2. Design and construct all proposed driveways in accordance with City of Ontario Standard Drawing No. 1204 for Commercial Driveways.
  3. The Applicant/Developer shall restripe and maintain striping on Airport Drive along project frontage limits.
  4. Property frontage along Airport Drive shall be signed "No Parking Anytime".
  5. The Applicant/Developer shall be responsible to design and construct in-fill public street lights and a potential new service along its project frontage on Airport Drive. Street lighting shall be LED-type and in accordance with City's Approved Material List LED Luminaires. The Applicant/Developer shall also install smart nodes on all new street light fixtures along project frontage.
  6. All landscaping, block walls, and other obstructions shall be compatible with the stopping sight distance requirements per City of Ontario Standard Drawing No. 1309.
  7. The Applicant/Developer's engineer-of-record shall meet with City Engineering staff prior to designing and submitting for plan check the signing/striping and street lighting design plans to define limits of improvements.



**G. DRAINAGE / HYDROLOGY**

- 2.40 A 14-foot-wide catch basin is available to accept flows from this project on the Northeast corner of Airport Drive and Wineville Ave. (Ref: Storm Drain Drawing Number: D10420).
- 2.41 Submit a hydrology study and drainage analysis, prepared and signed by a Civil Engineer registered in the State of California. The study shall be prepared in accordance with the San Bernardino County Hydrology Manual and City of Ontario standards and guidelines. Additional drainage facilities, including, but not limited to, improvements beyond the project frontage, may be required to be designed and constructed, by Applicant, as a result of the findings of this study.
- 2.42 An adequate drainage facility to accept additional runoff from the site does not currently exist downstream of the project. Design and construct a storm water detention facility on the project site. 100-year post-development peak flow shall be attenuated such that it does not exceed 80% of pre-development peak flows, in accordance with the approved hydrology study and improvement plans.
- 2.43 Submit a copy of a recorded private drainage easement or drainage acceptance agreement to the Engineering Department for the acceptance of any increase to volume and/or concentration of historical drainage flows onto adjacent property, prior to approval of the grading plan for the project.
- 2.44 Comply with the City of Ontario Flood Damage Prevention Ordinance (Ordinance No. 2409). The project site or a portion of the project site is within the Special Flood Hazard Area (SFHA) as indicated on the Flood Insurance Rate Map (FIRM) and is subject to flooding during a 100-year frequency storm. The site plan shall be subject to the provisions of the National Flood Insurance Program.
- 2.45 Other conditions: \_\_\_\_\_

**H. STORM WATER QUALITY / NATIONAL POLLUTANT DISCHARGE AND ELIMINATION SYSTEM (NPDES)**

- 2.46 401 Water Quality Certification/404 Permit – Submit a copy of any applicable 401 Certification or 404 Permit for the subject project to the City project engineer. Development that will affect any body of surface water (i.e. lake, creek, open drainage channel, etc.) may require a 401 Water Quality Certification from the California Regional Water Quality Control Board, Santa Ana Region (RWQCB) and a 404 Permit from the United States Army Corps of Engineers (USACE). The groups of water bodies classified in these requirements are perennial (flow year round) and ephemeral (flow during rain conditions, only) and include, but are not limited to, direct connections into San Bernardino County Flood Control District (SBCFCD) channels.  
If a 401 Certification and/or a 404 Permit are not required, a letter confirming this from Applicant's engineer shall be submitted.  
Contact information: USACE (Los Angeles District) (213) 452-3414; RWQCB (951) 782-4130.
- 2.47 Submit a Water Quality Management Plan (WQMP). This plan shall be approved by the Engineering Department prior to approval of any grading plan. The WQMP shall be submitted, utilizing the current San Bernardino County Stormwater Program template, available at: <http://www.sbcounty.gov/dpw/land/npdes.asp>.
- 2.48 Design and construct a Connector Pipe Trash Screen or equivalent Trash Treatment Control Device, per catch basin located within or accepting flows tributary of a Priority Land Use (PLU) area that meets the Full Capture System definition and specifications, and is on the Certified List of the State Water Resources Control Board. The device shall be adequately sized per catch basin and include a deflector screen with vector control access for abatement application, vertical support bars, and removable component to facilitate maintenance and cleaning.
- 2.49 Other conditions: \_\_\_\_\_



**J. SPECIAL DISTRICTS**

- 2.50 File an application, together with an initial deposit (if required), to establish a Community Facilities District (CFD) pursuant to the Mello-Roos Community Facilities District Act of 1982. The application and fee shall be submitted a minimum of four (4) months prior to final subdivision map approval, and the CFD shall be established prior to final subdivision map approval or issuance of building permits, whichever occurs first. The CFD shall be established upon the subject property to provide funding for various City services. An annual special tax shall be levied upon each parcel or lot in an amount to be determined. The special tax will be collected along with annual property taxes. The City shall be the sole lead agency in the formation of any CFD. Contact Investment and Revenue Resources at (909) 395-2341 to initiate the CFD application process.
- 2.51 Other conditions: \_\_\_\_\_

**K. FIBER OPTIC**

- 2.52 A 2" fiber optic line is available for connection by this project in East Airport Drive. (Ref: Fiber Optic Drawing Number: O10174)
- 2.53 Design and construct fiber optic system to provide access to the City's conduit and fiber optic system per the City's Fiber Optic Master Plan. Building entrance conduits shall start from the closest OntarioNet hand hole constructed along the project frontage in the ROW and shall terminate in the main telecommunications room for each building. Conduit infrastructure shall interconnect with the primary and/or secondary backbone fiber optic conduit system at the nearest OntarioNet hand hole. Generally located approximately 250 feet from the west side of the property line on the south side of East Airport Drive.
- 2.54 Refer to the City's Fiber Optic Master Plan for design and layout guidelines. Contact the Broadband Operations Department at (909) 395-2000, regarding this requirement.

**3. PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY, APPLICANT SHALL:**

- 3.01 Set new monuments in place of any monuments that have been damaged or destroyed as a result of construction of the subject project. Monuments shall be set in accordance with City of Ontario standards and to the satisfaction of the City Engineer.
- 3.02 Complete all requirements for recycled water usage. 
  - 1) Procure from the OMUC a copy of the letter of confirmation from the California Department of Public Health (CDPH) that the Engineering Report (ER) has been reviewed and the subject site is approved for the use of recycled water.
  - 2) Obtain clearance from the OMUC confirming completion of recycled water improvements and passing of shutdown tests and cross connection inspection, upon availability/usage of recycled water.
  - 3) Complete education training of on-site personnel in the use of recycled water, in accordance with the ER, upon availability/usage of recycled water.
- 3.03 The applicant/developer shall submit all final survey documents prepared by a Licensed Surveyor registered in the State of California detailing all survey monuments that have been preserved, revised, adjusted or set along with any maps, corner records or Records of Survey needed to comply with these Conditions of Approvals and the latest edition of the California Professional Land Survey Act. These documents are to be reviewed and approved by the City Survey Office.
- 3.04 Ontario Ranch Projects: For developments located at an intersection of any two collector or arterial streets, the applicant/developer shall set a monument if one does not already exist at that intersection. Contact the City Survey office for information on reference benchmarks, acceptable methodology and required submittals.



- 3.05 Confirm payment of all Development Impact Fees (DIF) to the Building Department.
- 3.06 Submit electronic copies (PDF and Auto CAD format) of all approved improvement plans, studies and reports (i.e. hydrology, traffic, WQMP, etc.).

**4. PRIOR TO FINAL ACCEPTANCE, APPLICANT SHALL:**

- 4.01 Complete all Conditions of Approval listed under Sections 1-3 above.
- 4.02 Pay all outstanding fees pursuant to the City of Ontario Municipal Code, including but not limited to, plan check fees, inspection fees and Development Impact Fees.
- 4.03 The applicant/developer shall submit a written request for the City's final acceptance of the project addressed to the City Project Engineer. The request shall include a completed Acceptance and Bond Release Checklist, state that all Conditions of Approval have been completed and shall be signed by the applicant/developer. Upon receipt of the request, review of the request shall be a minimum of 10 business days. Conditions of Approval that are deemed incomplete by the City will cause delays in the acceptance process.
- 4.04 Submit record drawings (PDF) for all public improvements identified within Section 2 of these Conditions of Approval.



## EXHIBIT 'A'

### ENGINEERING DEPARTMENT First Plan Check Submittal Checklist

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Project Number: PDEV22-017

**The following items are required to be included with the first plan check submittal:**

1.  A copy of this check list
2.  Payment of fee for Plan Checking
3.  Digital copy of Engineering Cost Estimate (on City form) with engineer's wet signature and stamp.
4.  Digital copy of project Conditions of Approval
5.  Include a PDF (electronic submittal) of each required improvement plan at every submittal.
6.  Two (2) sets of Potable and Recycled Water demand calculations (include water demand calculations showing low, average and peak water demand in GPM for the proposed development and proposed water meter size).
7.  Digital copy of Public Street improvement plan with street cross-sections
8.  Digital copy of Public Water improvement plan (include water demand calculations showing low, average and peak water demand in GPM for the proposed development and proposed water meter size)
9.  Digital copy of Recycled Water improvement plan (include recycled water demand calculations showing low, average and peak water demand in GPM for the proposed development and proposed water meter size and an exhibit showing the limits of areas being irrigated by each recycled water meter)
10.  Digital copy of Public Sewer improvement plan
11.  Digital copy of Public Storm Drain improvement plan
12.  Digital copy of Public Street Light improvement plan
13.  Digital copy of Signing and Striping improvement plan
14.  Digital copy of Fiber Optic plan (include Auto CAD electronic submittal)
15.  Digital copy of HOA Landscape improvement plans. Show corner sight line distance per engineering standard drawing 1309.
16.  Digital copy of CFD Landscape improvement plans. Show corner sight line distance per engineering standard drawing 1309.
17.  Digital copy of Dry Utility plans within public right-of-way (at a minimum the plans must show existing and ultimate right-of-way, curb and gutter, proposed utility location including centerline dimensions, wall to wall clearances between proposed utility and adjacent public line, street work repaired per Standard Drawing No. 1306. Include Auto CAD electronic submittal)
18.  Digital copy of Traffic Signal improvement plan and One (1) copy of Traffic Signal Specifications with modified Special Provisions. Please contact the Traffic Division at (909) 395-2154 to obtain Traffic Signal Specifications.
19.  Digital copy of Water Quality Management Plan (WQMP), including one (1) copy of the approved Preliminary WQMP (PWQMP).





20.  **Digital copy of Hydrology/Drainage study**
21.  **Digital copy of Soils/Geology report**
22.  Payment for Final Map/Parcel Map processing fee
23.  Digital copy of Final Map/Parcel Map
24.  Digital copy of approved Tentative Map
25.  **Digital copy of Preliminary Title Report (current within 30 days)**
26.  Digital copy of Traverse Closure Calculations
27.  One (1) set of supporting documents and maps (legible copies): referenced improvement plans (full size), referenced record final maps/parcel maps (full size, 18"x26"), Assessor's Parcel map (full size, 11"x17"), recorded documents such as deeds, lot line adjustments, easements, etc.
28.  **Digital copy of Engineering Report and an electronic file (include PDF format electronic submittal) for recycled water use**
29.  **Other:**
  - **Digital copy of the LLA form (include all the items in the LLA application checklist)**



# CITY OF ONTARIO

## MEMORANDUM

**FROM:** Heather Lugo, MA, Police Department

**DATE:** March 6, 2024 **REVISED March 26, 2024**

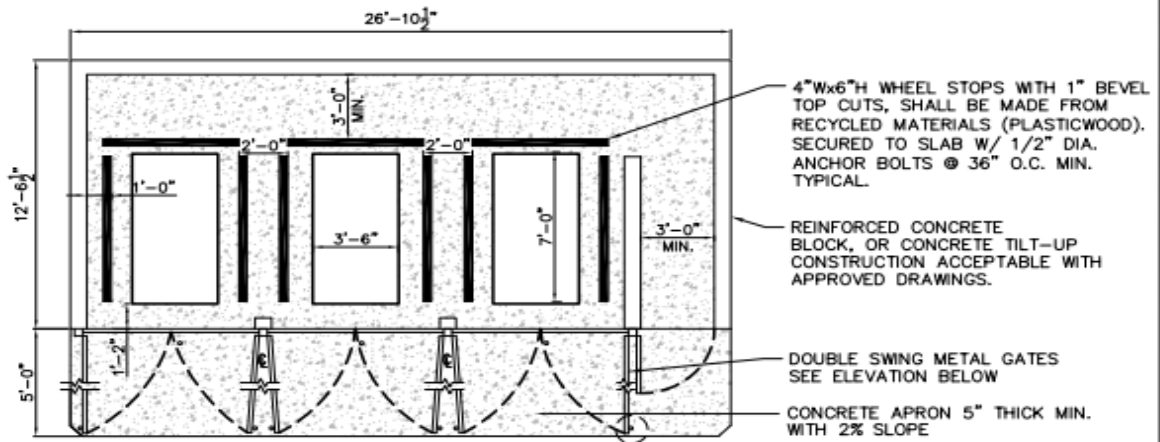
**SUBJECT:** PDEV22-017 - A Development Plan to construct a 270,337-square-foot industrial building on 13.08 acres of land (0.47 FAR) located at 5355 East Airport Drive, within the IH (Heavy Industrial) zoning district (APNs: 0238-052-29 and 0238-052-20).

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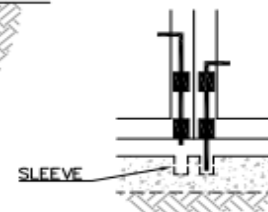
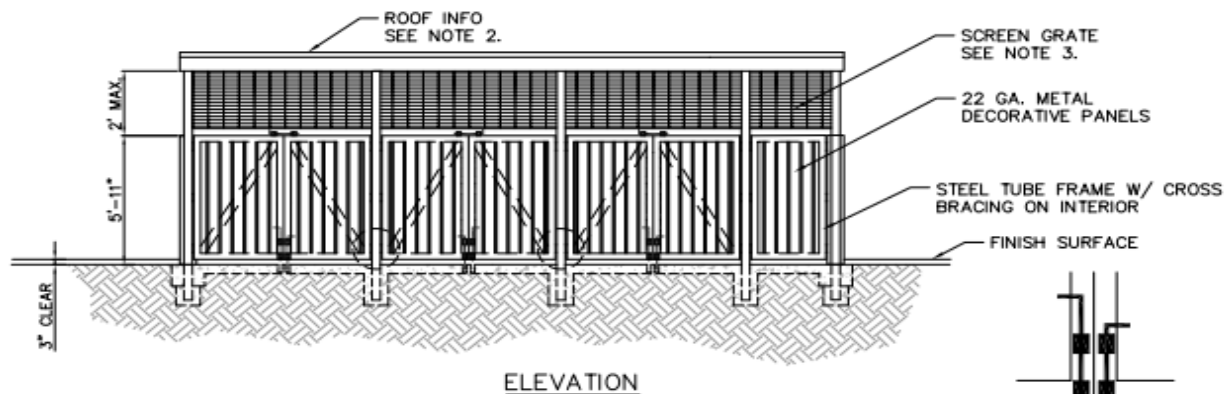
The “Standard Conditions of Approval” contained in Resolution No. 2017-027 apply. The applicant shall read and be thoroughly familiar with these conditions, including, but not limited to, the requirements below.

- Required lighting for all walkways, driveways, doorways, parking lots, hallways and other areas used by the public shall be provided. Lights shall operate via photosensor. Photometrics shall be provided to the Police Department and include the types of fixtures proposed and demonstrate that such fixtures meet the vandal-resistant requirement. Planned landscaping shall not obstruct lighting.
- Rooftop addresses shall be installed on the buildings as stated in the Standard Conditions. The numbers shall be at a minimum 6 feet tall and 2 foot wide, in reflective white paint on a flat black background, and oriented with the bottom of the numbers towards the addressed street. Associated letters shall also be included.
- The Applicant shall comply with construction site security requirements as stated in the Standard Conditions.
- **Per conversation with John Carter – Prologis is building the “shell” of the building. Cameras would be added during the tenant build of the project.** Applicant shall install a video surveillance system on the site. Cameras shall cover at a minimum all entry doors, all cash registers, and at least one camera shall capture any vehicle utilizing the drive-thru. Cameras shall be positioned to maximize the coverage of patrons and vehicles in these areas. Cameras shall record at least 15 frames per second and at a minimum of 640x480 lines of resolution. Recordings shall be stored for a minimum of 30 days and made available upon request to any member of the Ontario Police Department.
- All exterior electrical outlets shall be secured and locked.
- All exterior water spigots / water supply sources shall be secured and locked.
- Trash enclosure shall be fully secured/enclosed by locks, mesh, and screen grate to reduce crime and encampment opportunities for homeless persons.

The Applicant is invited to contact Heather Lugo at (909) 408-1074 with any questions or concerns regarding these conditions.



PLAN VIEW



**SLEEVE DETAIL**

**NOTES:**

- ① THIS DRAWING SERVES AS A GUIDELINE TO THE TRASH ENCLOSURE BIN LAYOUT. PLANS MUST BE SUBMITTED TO THE BUILDING DEPARTMENT FOR REVIEW AND APPROVAL TO MEET CURRENT BUILDING CODES.
- ② SOLID ROOF TO MEET ARCHITECTURAL AND STRUCTURAL DESIGN CRITERIA FROM PLANNING AND BUILDING DEPARTMENTS.
- ③ TRASH ENCLOSURE SHALL BE FULLY SECURED/ENCLOSED BY LOCKS, MESH, AND SCREEN GRATE.

**CITY OF ONTARIO - INTEGRATED WASTE DEPARTMENT**

**EXAMPLE 1**

COMMERCIAL/INDUSTRIAL REFUSE, RECYCLING AND ORGANICS ENCLOSURE (THREE 4-6 CU. YD. BINS)



# CITY OF ONTARIO

## MEMORANDUM

**TO:** Thomas Grahn, Senior Planner  
Planning Department

**FROM:** Paul Ehrman, Sr. Deputy Fire Chief/Fire Marshal  
Fire Department

**DATE:** October 3, 2023

**SUBJECT:** PDEV22-017 - A Development Plan to construct a 270,337-square-foot industrial building on 13.08 acres of land (0.47 FAR) located at 5355 East Airport Drive, within the IH (Heavy Industrial) zoning district (APNs: 0238-052-29 and 0238-052-20). (*Revision 3*).

- 
- The plan **does** adequately address Fire Department requirements at this time.
- Standard Conditions of Approval apply, as stated below.
- 

### **SITE AND BUILDING FEATURES:**

- A. 2019 CBC Type of Construction: III-B
- B. Type of Roof Materials: Panelized
- C. Ground Floor Area(s): 255,337 Sq. Ft.
- D. Number of Stories: 1 w/ Mezzanine
- E. Total Square Footage: 270,337 Sq. Ft.
- F. 2019 CBC Occupancy Classification(s): S-1

## **CONDITIONS OF APPROVAL:**

### **1.0 GENERAL**

- ☒ 1.1 The following are the Ontario Fire Department (“Fire Department”) requirements for this development project, based on the current edition of the California Fire Code (CFC), and the current versions of the Fire Prevention Standards (“Standards.”) It is recommended that the applicant or developer transmit a copy of these requirements to the on-site contractor(s) and that all questions or concerns be directed to the Bureau of Fire Prevention, at (909) 395-2029. For copies of Ontario Fire Department Standards please access the City of Ontario web site at [www.ontarioca.gov/Fire/Prevention](http://www.ontarioca.gov/Fire/Prevention).
- ☒ 1.2 These Fire Department conditions of approval are to be included on any and all construction drawings.

### **2.0 FIRE DEPARTMENT ACCESS**

- ☒ 2.1 Fire Department vehicle access roadways shall be provided to within 150 ft. of all portions of the exterior walls of the first story of any building, unless specifically approved. Roadways shall be paved with an all-weather surface and shall be a minimum of twenty-four (24) ft. wide. See Standard #B-004.
- ☒ 2.2 In order to allow for adequate turning radius for emergency fire apparatus, all turns shall be designed to meet the minimum twenty five feet (25’) inside and forty-five feet (45’) outside turning radius per Standard #B-005.
- ☒ 2.3 Fire Department access roadways that exceed one hundred and fifty feet (150’) in length shall have an approved turn-around per Standard #B-002.
- ☒ 2.4 Access drive aisles which cross property lines shall be provided with CC&Rs, access easements, or reciprocating agreements, and shall be recorded on the titles of affected properties, and copies of same shall be provided at the time of building plan check.
- ☒ 2.5 "No Parking-Fire Lane" signs and /or red painted curbs with lettering are required to be installed in interior access roadways, in locations where vehicle parking would obstruct the minimum clear width requirement. Installation shall be per Standard #B-001.
- ☒ 2.6 Security gates or other barriers on fire access roadways shall be provided with a Knox brand key switch or padlock to allow Fire Department access. See Standards #B-003, B-004 and H-001.
- ☒ 2.7 Any time PRIOR to on-site combustible construction and/or storage, a minimum twenty-four (24) ft. wide circulating all weather access roads shall be provided to within 150 ft. of all portions of the exterior walls of the first story of any building, unless specifically approved by fire department and other emergency services.

### **3.0 WATER SUPPLY**

- 3.1 The required fire flow per Fire Department standards, based on the 2019 California Fire Code, Appendix B, is 4000 gallons per minute (g.p.m.) for 4 hours at a minimum of 20 pounds per square inch (p.s.i.) residual operating pressure.
- 3.2 Off-site (public) fire hydrants are required to be installed on all frontage streets, at a minimum spacing of three hundred foot (300') apart, per Engineering Department specifications.
- 3.3 Buildings that exceed 100,000 square feet in floor area shall provide an onsite looped fire protection water line around the building(s.) The loops shall be required to have two or more points of connection from a public circulating water main.
- 3.4 The water supply, including water mains and fire hydrants, shall be tested and approved by the Engineering Department and Fire Department prior to combustible construction to assure availability and reliability for firefighting purposes.

### **4.0 FIRE PROTECTION SYSTEMS**

- 4.1 On-site private fire hydrants are required per Standard #D-005, and identified in accordance with Standard #D-002. Installation and locations(s) are subject to the approval of the Fire Department. An application with detailed plans shall be submitted, and a construction permit shall be issued by the Fire Department, prior to any work being done.
- 4.2 Underground fire mains which cross property lines shall be provided with CC & R, easements, or reciprocating agreements, and shall be recorded on the titles of affected properties, and copies of same shall be provided at the time of fire department plan check. The shared use of private fire mains or fire pumps is allowable only between immediately adjacent properties and shall not cross any public street.
- 4.3 An automatic fire sprinkler system is required. The system design shall be in accordance with National Fire Protection Association (NFPA) Standard 13. All new fire sprinkler systems, except those in single family dwellings, which contain twenty (20) sprinkler heads or more shall be monitored by an approved listed supervising station. An application along with detailed plans shall be submitted, and a construction permit shall be issued by the Fire Department, prior to any work being done.
- 4.5 Fire Department Connections (FDC) shall be located on the address side of the building within one hundred fifty feet (150') of a public fire hydrant on the same side of the street. Provide identification for all fire sprinkler control valves and fire department connections per Standard #D-007. Raised curbs adjacent to Fire Department connection(s) shall be painted red, five feet either side, per City standards.
- 4.6 A fire alarm system is required. The system design shall be in accordance with National Fire Protection Association (NFPA) Standard 72. An application along with detailed plans shall be submitted, and a construction permit shall be issued by the Fire Department, prior to any work being done.

- ☒ 4.7 Portable fire extinguishers are required to be installed prior to occupancy per Standard #C-001. Please contact the Fire Prevention Bureau to determine the exact number, type and placement required.

## **5.0 BUILDING CONSTRUCTION FEATURES**

- ☒ 5.1 The developer/general contractor is to be responsible for reasonable periodic cleanup of the development during construction to avoid hazardous accumulations of combustible trash and debris both on and off the site.
- ☒ 5.2 Approved numbers or addresses shall be placed on all new and existing buildings in such a position as to be plainly visible and legible from the street or road fronting the property. Multi-tenant or building projects shall have addresses and/or suite numbers provided on the rear of the building. Address numbers shall contrast with their background. See Section 9-1 6.06 of the Ontario Municipal Code and Standards #H-003 and #H-002.
- ☒ 5.6 Knox ® brand key-box(es) shall be installed in location(s) acceptable to the Fire Department. All Knox boxes shall be monitored for tamper by the building fire alarm system. See Standard #H-001 for specific requirements.
- ☒ 5.7 Placards shall be installed in acceptable locations on buildings that store, use or handle hazardous materials in excess of the quantities specified in the CFC. Placards shall meet the requirements of National Fire Protection Association (NFPA) Standard 704.

## **6.0 OTHER SPECIAL USES**

- ☒ 6.1 The storage, use, dispensing, or handling of any hazardous materials shall be approved by the Fire Department, and adequate fire protection features shall be required. If hazardous materials are proposed, a Fire Department Hazardous Materials Information Packet, including Disclosure Form and Information Worksheet, shall be completed and submitted with Material Safety Data Sheets to the Fire Department along with building construction plans.
- ☒ 6.2 Any High Piled Storage, or storage of combustible materials greater than twelve (12') feet in height for ordinary (Class I-IV) commodities or storage greater than six feet (6') in height of high hazard (Group A plastics, rubber tires, flammable liquids, etc.) shall be approved by the Fire Department, and adequate fire protection features shall be required. If High Piled Storage is proposed, a Fire Department High Piled Storage Worksheet shall be completed and detailed racking plans or floor plans submitted prior to occupancy of the building.
- ☒ 6.3 Underground fuel tanks, their associated piping and dispensers shall be reviewed, approved, and permitted by Ontario Building Department, Ontario Fire Department, and San Bernardino County Fire Department Hazardous Materials Division. In fueling facilities, an exterior emergency pump shut-off switch shall be provided.



# DEVELOPMENT ADVISORY BOARD DECISION

April 15, 2024

303 East B Street, Ontario, California 91764 Phone: 909.395.2036 / Fax: 909.395.2420

**DECISION NO.:** [insert #]

**FILE NO.:** PDEV23-036

**DESCRIPTION:** A hearing to consider a Development Plan to construct a new 60,889 square foot automotive dealership composed of a new Kia showroom, Ford showroom and service building on 6.99 acres of land located at the northeast corner of Guasti Road and Haven Avenue, within the Office land use designation of the Ontario Gateway Specific Plan. (APN: 0210-212-60); **submitted by Robert Plant.**

## PART 1: BACKGROUND & ANALYSIS

ROBERT PLANT, (herein after referred to as "Applicant") has filed an application requesting approval of a Development Plan, File No. PDEV23-036, as described in the subject of this Decision (herein after referred to as "Application" or "Project").

**PROJECT SETTING:** The project site is located at the northeast corner of Guasti Road and Haven Avenue, just south of the Interstate 10 freeway (Exhibit A: Project Location Map, attached). The 6.99-acre site is regulated by the Ontario Gateway Specific Plan, with a land use designation of Office. The site is currently vacant land with vehicular access from a private road that runs north to south, between the Springhill Suites Hotel (by Marriott) located to the west of the private road and Embassy Suites Hotel (by Hilton) located to the east. Existing land uses, Policy Plan (general plan) and zoning designations, and specific plan land uses on and surrounding the project site are as follows:

	<b>Existing Land Use</b>	<b>Policy Plan Land Use Designation</b>	<b>Zoning Designation</b>	<b>Specific Plan Land Use Designation</b>
Site:	Vacant Land	Office Commercial (0.75 FAR)	Ontario Gateway Specific Plan	Office
North:	Interstate 10 Freeway	N/A	N/A	N/A
South:	Hotels	Office Commercial (0.75 FAR)	Ontario Gateway Specific Plan	Entertainment
East:	Mercedes Benz Auto Dealership	Office Commercial (0.75 FAR)	Ontario Gateway Specific Plan	Auto
West:	Caltrans on-ramp, Haven Avenue & Vacant Land	Office Commercial	Centrelake Specific Plan	Commercial/Hotel



## PROJECT ANALYSIS:

(1) Background — In 2007, the Ontario Gateway Specific Plan was adopted to help facilitate the development of the Project area as an automotive, mixed-use, office and entertainment district. The specific plan covers approximately 40 acres of land along the north and south sides of Guasti Road (see Exhibit B: Ontario Gateway Specific Plan Land Use Map, attached).

On October 2, 2023, the Applicant submitted an application for a Development Plan, to construct a new automotive dealership for a new Kia showroom, Ford showroom and a shared service building totaling 60,889 square feet. The Kia and Ford showrooms are roughly 12,716 square feet each, and include indoor display areas, office space, and customer service areas. The service building is roughly 35,206 square feet. The project will also include a 2,048 square-foot carwash structure with a 52' x 43' canopy over the auto-detailing area, which will also be shared by both dealerships. Both dealerships will also provide outdoor vehicle display areas of 39,300 square feet and 22,100 square feet for Kia and Ford, respectively.

(2) Site Design/Building Layout — The proposed buildings are situated near the center of the Project site and are setback approximately 86-feet from the north property line (freeway), 52-feet from the east property line (Mercedes Benz) and 51-feet from the south property line (Hotels). The setbacks place the buildings generally at the center of the project site, allowing adequate space for circulation and onsite vehicle parking. The front of the Kia and Ford showrooms (buildings) are oriented towards the south property line, fronting Springhill Suites and Embassy Suites Hotels and the private road. The north elevation for the service building is oriented towards the Interstate 10 freeway.

(3) Site Access/Circulation — The project site is proposed with one vehicular point of access from an existing private road. Within the interior of the development, a 26-foot-wide fire lane has been carefully designed to loop around all the buildings on the site for emergency responder vehicles and service trucks (see Exhibit C: Site Plan, attached). Additionally, the site provides adequate interior access to the parking lot areas, showroom, and direct access to the service building. The nature of car dealerships typically involves pedestrian activity throughout the parking lot areas to view vehicles on display. While this will be the case for the proposed dealership, the project will also provide pedestrian access from the private road and a direct connection between both showrooms.

(4) Parking — The Project has provided off-street parking pursuant to the auto dealership (interior showroom, outdoor display area, motor vehicle repair, office) parking standards specified in the Development Code and Ontario Gateway Specific Plan. The number of off-street parking spaces provided meets the minimum parking requirement for the Project. The off-street parking calculations for the Project are summarized in the table below:

**Parking Summary**

Type of Use	Building Area (in SF)	Parking Ratio	Spaces Required	Spaces Provided
Ford (Indoor Showroom)	6,500	2.5 spaces per 1,000 SF of GFA	17.5	17.5
Ford (Outdoor display)	22,100	1space per 1,000 SF of GFA	22	22
Ford (Office)	3,800	1 space per each 250 SF GFA	15.2	15.2
Kia (Indoor Showroom)	6,750	2.5 spaces per 1,000 SF of GFA	17.5	17.5
Kia (Outdoor Display)	39,300	1space per 1,000 SF of GFA	40	40
Kia (Office)	3,725	1 space per each 250 SF GFA	14.9	14.9
Service Building	35,206	2.5 spaces per 1,000 SF of GFA	88	88
<b>TOTAL</b>	<b>117,381</b>		<b>215</b>	<b>215</b>

(5) Architecture —The proposed development will be designed in a Contemporary Architectural style that exemplifies the type of high-quality architecture promoted by the Ontario Gateway Specific Plan and The Ontario Plan (TOP). The buildings will incorporate glazing, aluminum composite panels, smooth stucco, and other elements to accentuate the overall design. The buildings will maintain an overall height of 31 feet measured to its highest point. Special attention has been given to the use of color, massing, building form, exterior finish materials, and architectural details throughout all elevations of the building (see Figure 1: Project Perspective, below and Exhibits H through Q: Exterior Elevations, attached).

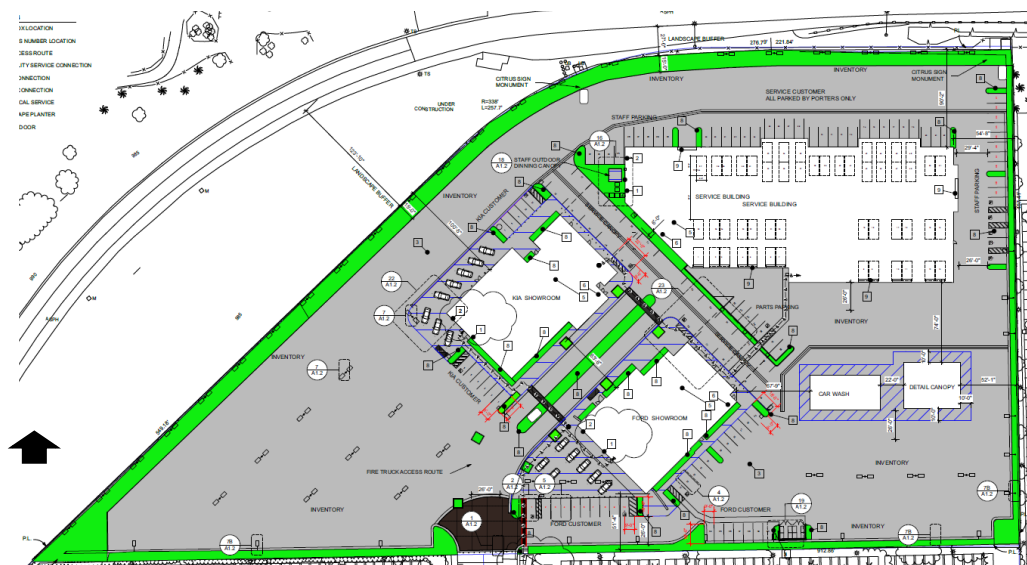


**Figure 1: Project Perspective**

This high-quality architecture is exemplified through the use of:

- Extensive double pane glazing along the front elevations;
- Articulation in the elevations;
- Brushed aluminum;
- Corrugated metal panels in different color tones;
- Clear anodized glazing;
- Anodized aluminum mullions;
- Ribbed metal panels;
- Aluminum composite panels;
- Corrugated metal panels;
- Decorative horizontal and vertical reveals;
- Aluminum storefronts with tempered glazing; and
- Articulation in the building's parapet roof lines

(6) Landscaping —The Office land use designation of the Ontario Gateway Specific Plan requires a minimum 13 percent landscape coverage for the project site, the project will provide a 13 percent landscape coverage, in compliance with the minimum requirement. The project proposes landscaping along the entire perimeter of the site and adjacent to the Ford and Kia showrooms and Service building walls. The project will provide a 15-foot wide landscape setback along the north property line (Interstate 10 freeway) property line. As a condition of approval, the project has been required to enter into an agreement with Caltrans to landscape 5-feet along the Caltrans property right-of-way (projects frontage). The Ontario Gateway Specific Plan requires a minimum of a 20-foot landscape setback along the north property line (Caltrans frontage). If an agreement is not executed, a 20-foot wide landscape setback will need to be provided onsite. The remaining perimeter landscaping will include a 5-foot wide landscaped area along the east and south property lines. The interior parking lot areas are also proposed to be landscaped with a variety of ground covers, accent plants, shrubs, and shade canopy trees (see Figure 2: Landscape Plan, below).



(7) **Signage** —The project will be required to submit a sign program for review and approval prior to any signs being installed on the site or buildings. All project signage is required to comply with sign regulations provided in Ontario Gateway Specific Plan and Ontario Development Code Division 8.1.

(8) **Utilities (drainage, sewer)** — Public utilities (water and sewer) are available to serve the Project. Furthermore, the Applicant has submitted a Preliminary Water Quality Management Plan ("PWQMP"), which establishes the Project's compliance with storm water discharge/water quality requirements. The PWQMP includes site design measures that capture runoff and pollutant transport by minimizing impervious surfaces and maximizes low impact development ("LID") best management practices ("BMPs"), such as retention and infiltration, biotreatment, and evapotranspiration. For this project, the Applicant is proposing an underground detention basin along the southwest portion of the dealers parking lot area (inventory parking lot area). Any overflow drainage will be conveyed to the public street by way of parkway drains and culverts.

**PUBLIC NOTIFICATION:** The subject application was advertised as a hearing in at least one newspaper of general circulation in the City of Ontario (the Inland Valley Daily Bulletin newspaper).

**CORRESPONDENCE:** As of the preparation of this Decision, Planning Department staff has not received any written or verbal communications from the owners of properties surrounding the project site or from the public in general, regarding the subject application.

**AGENCY/DEPARTMENT REVIEWS:** Each City agency/department has been provided the opportunity to review and comment on the subject application and recommend conditions of approval to be imposed upon the application. At the time of the Decision preparation, recommended conditions of approval were provided and are included with this Decision.

**AIRPORT LAND USE COMPATIBILITY PLAN (ALUCP) COMPLIANCE:** The California State Aeronautics Act (Public Utilities Code Section 21670 et seq.) requires that an Airport Land Use Compatibility Plan be prepared for all public use airports in the State; and requires that local land use plans and individual development proposals must be consistent with the policies set forth in the adopted Airport Land Use Compatibility Plan.

On April 19, 2011, the City Council of the City of Ontario approved and adopted the ONT ALUCP, establishing the Airport Influence Area for Ontario International Airport, which encompasses lands within parts of San Bernardino, Riverside, and Los Angeles Counties, and limits future land uses and development within the Airport Influence Area, as they relate to noise, safety, airspace protection, and overflight impacts of current and future airport activity. As the decision-making body for the Project, the Development Advisory Board has reviewed and considered the facts and information contained in the Application and supporting documentation against the ONT ALUCP compatibility factors, including [1] Safety Criteria (ONT ALUCP Table 2-2) and Safety Zones (ONT ALUCP

Map 2-2), [2] Noise Criteria (ONT ALUCP Table 2-3) and Noise Impact Zones (ONT ALUCP Map 2-3), [3] Airspace protection Zones (ONT ALUCP Map 2-4), and [4] Overflight Notification Zones (ONT ALUCP Map 2-5). As a result, the Development Advisory Board, therefore, finds and determines that the Project, when implemented in conjunction with the conditions of approval, will be consistent with the policies and criteria set forth within the ONT ALUCP.

**COMPLIANCE WITH THE ONTARIO PLAN:** The proposed project is consistent with the principles, goals and policies contained within the Vision, Governance, Policy Plan (general plan), and City Council Priorities components of The Ontario Plan ("TOP"). More specifically, the goals and policies of TOP that are furthered by the proposed project are as follows:

(1) City Council Goals.

- Invest in the Growth and Evolution of the City's Economy
- Operate in a Businesslike Manner
- Focus Resources in Ontario's Commercial and Residential Neighborhoods

(2) Vision.

**Distinctive Development:**

- Commercial and Residential Development
  - Development quality that is broadly recognized as distinctive and not exclusively tied to the general suburban character typical of much of Southern California.

(3) Governance.

**Decision Making:**

- Goal G1: Sustained decision-making that consistently moves Ontario towards its Vision by using The Ontario Plan as a framework for assessing choices.
  - G 1-2. Long-term Benefit. We require decisions to demonstrate and document how they add value to the community and support the Ontario Vision.

(4) Policy Plan (General Plan)

**Land Use Element:**

- LU-1.6 Complete Community. We incorporate a variety of land uses and building types in our land use planning efforts that result in a complete community where residents at all stages of life, employers, workers, and visitors have a wide spectrum of choices of where they can live, work, shop and recreate within Ontario.

- Goal LU-2 Compatibility: Compatibility between a wide range of uses and a resultant urban patterns and forms.

### **Community Economics Element:**

- CE-2.1 Development Projects. We require new development and redevelopment to create unique, high-quality places that add value to the community.
- CE-2.2 Development Review. We require those proposing new development and redevelopment to demonstrate how their projects will create appropriately unique, functional, and sustainable places that will compete well with their competition within the region.
- CE-2.4 Protection of Investment. We require that new development and redevelopment protect existing investment by providing architecture and urban design of equal or greater quality.
- CE-2.5 Private Maintenance. We require adequate maintenance, upkeep, and investment in private property because proper maintenance on private property protects property values.

### **Safety Element:**

- S-1.1 Implementation of Regulations and Standards. We require that all new habitable structures be designed in accordance with the most recent California Building Code adopted by the City, including provisions regarding lateral forces and grading.

### **Community Design Element:**

- Goal CD-1 Image & Identity: A dynamic, progressive city containing distinct and complete places that foster a positive sense of identity and belonging among residents, visitors, and businesses.
- CD-2.1 Quality Building Design and Architecture. We encourage all development projects to convey visual interest and character through:
  - Building volume, massing, and height to provide context-appropriate scale and proportion;
  - A true architectural style which is carried out in plan, section, and elevation through all aspects of the building and site design and appropriate for its setting; and
  - Exterior building materials that are articulated, high quality, durable, and appropriate for the architectural style.
- CD-2.8 Safe Design. We incorporate defensible space design into new and existing developments to ensure the maximum safe travel and visibility on pathways,

corridors, and open space and at building entrances and parking areas by avoiding physically and visually isolated spaces, maintaining visibility and accessibility, and using lighting.

➤ CD-2.9 Landscape Design. We encourage durable, sustainable, and drought-tolerant landscaping materials and designs that enhance the aesthetics of structures, create and define public and private spaces, and provide shade and environmental benefits.

➤ CD-2.10 Parking Areas. We require all development, including single-family residential, to minimize the visual impact of surface, structured, and garage parking areas visible from the public realm in an aesthetically pleasing, safe and environmentally sensitive manner. Examples include:

- Surface parking: Shade trees, pervious surfaces, urban run-off capture and infiltration, and pedestrian paths to guide users through the parking field;
- Structured parking: facade articulation, screening, appropriate lighting, and landscaping; and

➤ CD-2.13 Entitlement Process. We work collaboratively with all stakeholders to ensure a high degree of certainty in the efficient review and timely processing of all development plans and permits.

➤ CD-3.4 Context-Aware and Appropriate Design. We require appropriate building and site design that complements existing development, respects the intent and identity of the Place Type, and provides appropriate transitions and connections between adjacent uses to ensure compatibility of scale, maintain an appropriate level of privacy for each use, and minimize potential conflicts.

▪ Goal CD-5 Protection of Investment: A sustained level of maintenance and improvement of properties, buildings, and infrastructure that protects the property values and encourages additional public and private investments.

➤ CD-5.1 Maintenance of Buildings and Property. We require all public and privately-owned buildings and property (including trails and easements) to be properly and consistently maintained.

➤ CD-5.2 Maintenance of Infrastructure. We require the continual maintenance of infrastructure.

**HOUSING ELEMENT COMPLIANCE:** The project is consistent with the Housing Element of the Policy Plan (general plan) component of The Ontario Plan, as the project site is not one of the properties in the Housing Element Sites contained in Tables B-1 and B-2 (Housing Element Sites Inventory) of the Housing Element Technical Report.

**PART 2: RECITALS**

WHEREAS, the Application is a Project pursuant to the California Environmental Quality Act (Public Resources Code Section 21000 et seq.) ("CEQA") and an initial study has been prepared to determine possible environmental impacts; and

WHEREAS, the Ontario Gateway Specific Plan Environmental Impact Report was certified by the Ontario City Council on July 3, 2007 ("Certified EIR") in conjunction with File No. PSP05-005, in which development and use of the Project site was discussed; and

WHEREAS, the environmental impacts of this Project were thoroughly analyzed in the Certified EIR, which concluded that implementation of the Project could result in a number of significant effects on the environment and identified mitigation measures that would reduce each of those significant effects to a less-than-significant level; and

WHEREAS, the City's "Local Guidelines for the Implementation of the California Environmental Quality Act (CEQA)" provide for the use of a single environmental assessment in situations where the impacts of subsequent projects are adequately analyzed; and

WHEREAS, Ontario Development Code Table 2.02-1 (Review Matrix) grants the Development Advisory Board (hereinafter referred to as "DAB") the responsibility and authority to review and act on the subject Application; and

WHEREAS, all members of the DAB of the City of Ontario were provided the opportunity to review and comment on the Application, and no comments were received opposing the proposed development; and

WHEREAS, the Project has been reviewed for consistency with the Housing Element of the Policy Plan component of The Ontario Plan, as State Housing Element law (as prescribed in Government Code Sections 65580 through 65589.8) requires that development projects must be consistent with the Housing Element, if upon consideration of all its aspects, it is found to further the purposes, principals, goals, and policies of the Housing Element; and

WHEREAS, the Project is located within the Airport Influence Area of Ontario International Airport, which encompasses lands within parts of San Bernardino, Riverside, and Los Angeles Counties, and is subject to, and must be consistent with, the policies and criteria set forth in the Ontario International Airport Land Use Compatibility Plan (hereinafter referred to as "ONT ALUCP"), which applies only to jurisdictions within San Bernardino County, and addresses the noise, safety, airspace protection, and overflight impacts of current and future airport activity; and

WHEREAS, City of Ontario Development Code Division 2.03 (Public Hearings) prescribes the manner in which public notification shall be provided and hearing



procedures to be followed, and all such notifications and procedures have been completed; and

WHEREAS, the DAB has reviewed the previous EIR prepared for the Ontario Gateway Specific Plan certified by the Ontario City Council on July 3, 2007 ("Certified EIR") in conjunction with File No. PSP05-005, finding that the proposed Project introduces no new significant environmental impacts and applying all previously adopted mitigation measures to the Project, which were incorporated by reference; and

WHEREAS, on April 15, 2024, the DAB of the City of Ontario conducted a hearing on the Application and concluded said hearing on that date; and

WHEREAS, all legal prerequisites to the adoption of this Decision have occurred.

### **PART 3: THE DECISION**

NOW, THEREFORE, IT IS HEREBY FOUND, DETERMINED AND DECIDED by the Development Advisory Board of the City of Ontario as follows:

SECTION 1: Environmental Determination and Findings. As the decision-making body for the Project, the DAB has reviewed and considered the information contained in the previous Certified EIR and supporting documentation. Based upon the facts and information contained in the previous Certified EIR and supporting documentation, the DAB finds as follows:

- (1) The environmental impacts of this Project were previously reviewed in conjunction with File No. PSP05-005, the Ontario Gateway Specific Plan for which an Environmental Impact Report was certified by the Ontario City Council on July 3, 2007 ("Certified EIR"); and
- (2) The previous Certified EIR contains a complete and accurate reporting of the environmental impacts associated with the Project; and
- (3) The previous Certified EIR was completed in compliance with CEQA and the Guidelines promulgated thereunder, and the City of Ontario Local CEQA Guidelines; and
- (4) The previous Certified EIR reflects the independent judgment of the Development Advisory Board; and
- (5) The proposed Project will introduce no new significant environmental impacts beyond those previously analyzed in the previous Certified EIR, and all mitigation measures previously adopted with the Certified EIR, are incorporated herein by this reference.

SECTION 2: Subsequent or Supplemental Environmental Review Not Required. Based on the information presented to the DAB, and the specific findings set forth in Section 1, above, the DAB finds that the preparation of a subsequent or supplemental Certified EIR is not required for the Project, as the Project:

(1) Does not constitute substantial changes to the Certified EIR that will require major revisions to the Certified EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; and

(2) Does not constitute substantial changes with respect to the circumstances under which the Certified EIR was prepared, that will require major revisions to the Certified EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of the previously identified significant effects; and

(3) Does not constitute substantial changes with respect to the circumstances under which the Certified EIR was prepared, that will require major revisions to the Certified EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of the previously identified significant effects; and

(4) Does not contain new information of substantial importance that was not known and could not have been known with the exercise of reasonable diligence at the time the Certified EIR was certified/adopted, that shows any of the following:

(a) The Project will have one or more significant effects not discussed in the Certified EIR; or

(b) Significant effects previously examined will be substantially more severe than shown in the Certified EIR; or

(c) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the Project, but the City declined to adopt such measures; or

(d) Mitigation measures or alternatives considerably different from those analyzed in the Certified EIR would substantially reduce one or more significant effects on the environment, but which the City declined to adopt.

SECTION 3: Housing Element Compliance. Pursuant to the requirements of California Government Code Chapter 3, Article 10.6, commencing with Section 65580, as the recommending body for the Project, the DAB finds that based on the facts and information contained in the Application and supporting documentation, at the time of Project implementation, the Project is consistent with the Housing Element of the Policy Plan (General Plan) component of The Ontario Plan, as the Project site is not one of the properties in the Housing Element Sites contained in Tables B-1 and B-2 (Housing Element Sites Inventory) of the Housing Element Technical Report.

SECTION 4: Concluding Facts and Reasons. Based upon the substantial evidence presented to the DAB during the above-referenced hearing and upon the facts and information set forth in Parts I (Background and Analysis) and II (Recitals), above, and the determinations set forth in Sections 1 and 3, above, the DAB hereby concludes as follows:

(1) *The proposed development at the proposed location is consistent with the goals, policies, plans and exhibits of the Vision, Policy Plan (General Plan), and City Council Priorities components of The Ontario Plan. The proposed Project is located within the Office Commercial (0.75 FAR) land use district of the Policy Plan Land Use Map, and the Office land use designation of the Ontario Gateway Specific Plan. The development standards and conditions under which the proposed Project will be constructed and maintained, is consistent with the goals, policies, plans, and exhibits of the Vision, Policy Plan (General Plan), and City Council Priorities components of The Ontario Plan, as the Project will contribute to the establishment of a dynamic, progressive city containing distinct districts that foster a positive sense of identity and belonging among residents, visitors, and businesses (Goal CD1). Furthermore, the project incorporates appropriate building orientation, attractive architecture, landscaping and site design that complements existing developments, respects the intent and identity of the Place Type, provides appropriate transitions and connections between adjacent uses to ensure compatibility of scale, and minimizes potential conflicts; and*

(2) *The proposed development is compatible with those on adjoining sites in relation to location of buildings, with particular attention to privacy, views, any physical constraint identified on the site and the characteristics of the area in which the site is located. The Project has been designed consistent with the requirements of the City of Ontario Development Code and the Office land use designation of the Ontario Gateway Specific Plan, including standards relative to the particular land use proposed (new 60,889 square foot automotive dealership), as well as building intensity, building and parking setbacks, building height, number of off-street parking and loading spaces, on-site and off-site landscaping, and fences, walls and obstructions; and*

(3) *The proposed development will complement and/or improve upon the quality of existing development in the vicinity of the Project and the minimum safeguards necessary to protect the public health, safety and general welfare have been required of the proposed Project. The Development Advisory Board has required certain safeguards, and impose certain conditions of approval, which have been established to ensure that: [i] the purposes of the Specific Plan are maintained; [ii] the Project will not endanger the public health, safety or general welfare; [iii] the Project will not result in any significant environmental impacts; [iv] the Project will be in harmony with the area in which it is located; and [v] the Project will be in full conformity with the Vision, City Council Priorities and Policy Plan components of The Ontario Plan, and the Ontario Gateway Specific Plan; and*

(4) *The proposed development is consistent with the development standards and design guidelines set forth in the Development Code, or applicable specific plan or*

*planned unit development*. The proposed Project has been reviewed for consistency with the general development standards and guidelines of the Office land use designation of the Ontario Gateway Specific Plan that are applicable to the proposed Project, including building intensity, building and parking setbacks, building height, amount of off-street parking and loading spaces, parking lot dimensions, design and landscaping, bicycle parking, on-site landscaping, and fences and walls, as well as those development standards and guidelines specifically related to the particular land use being proposed (new 60,889 square foot automotive dealership and service building) on 6.99 acres of land. As a result of this review, the Development Advisory Board has determined that the Project, when implemented in conjunction with the conditions of approval, will be consistent with the development standards and guidelines described in the Ontario Gateway Specific Plan.

SECTION 5: Development Advisory Board Action. Based on the findings and conclusions set forth in Sections 1 through 4, above, the DAB hereby APPROVES the Application subject to each and every condition set forth in the Conditions of Approval included as Attachment A of this Decision and incorporated herein by this reference.

SECTION 6: Indemnification. The Applicant shall agree to defend, indemnify and hold harmless, the City of Ontario or its agents, officers, and employees from any claim, action or proceeding against the City of Ontario or its agents, officers or employees to attack, set aside, void or annul this approval. The City of Ontario shall promptly notify the applicant of any such claim, action or proceeding, and the City of Ontario shall cooperate fully in the defense.

SECTION 7: Custodian of Records. The documents and materials that constitute the record of proceedings on which these findings have been based are located at the City of Ontario City Hall, 303 East "B" Street, Ontario, California 91764. The custodian for these records is the City Clerk of the City of Ontario. The records are available for inspection by any interested person, upon request.

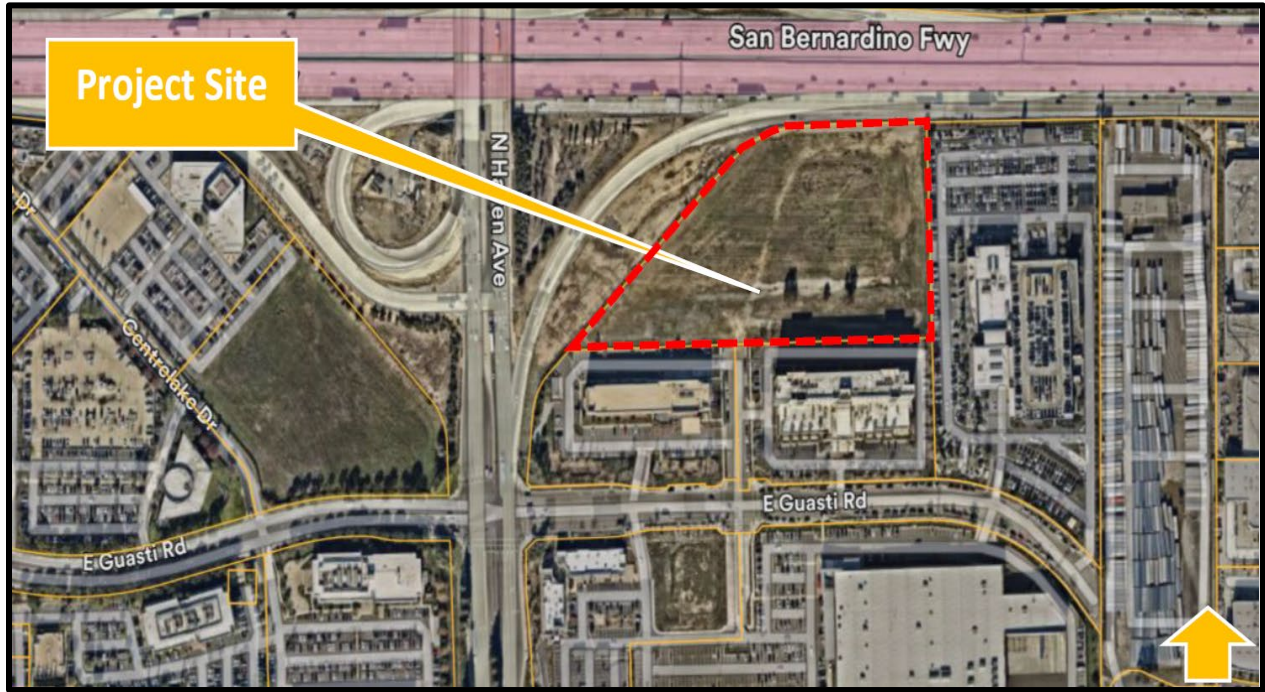
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APPROVED AND ADOPTED this 15th day of April 2024.

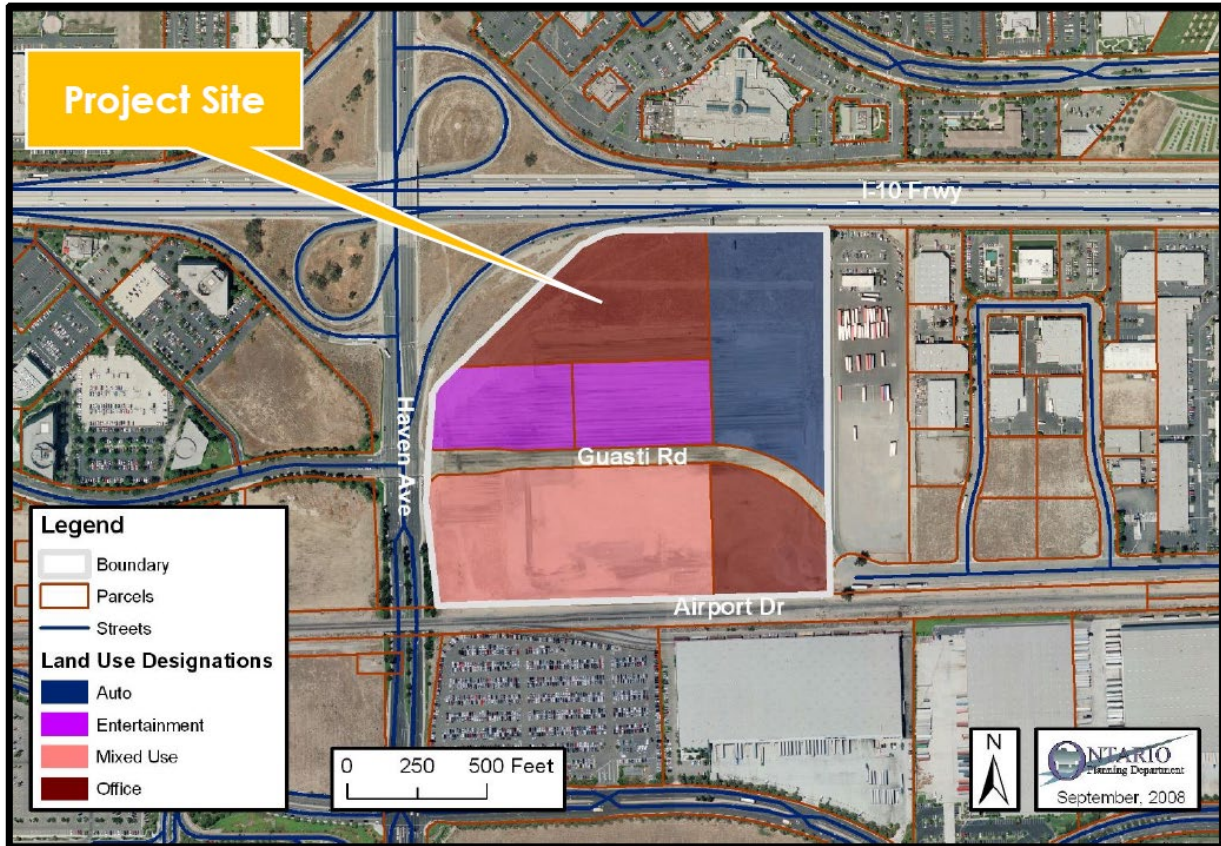
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Development Advisory Board Chairman

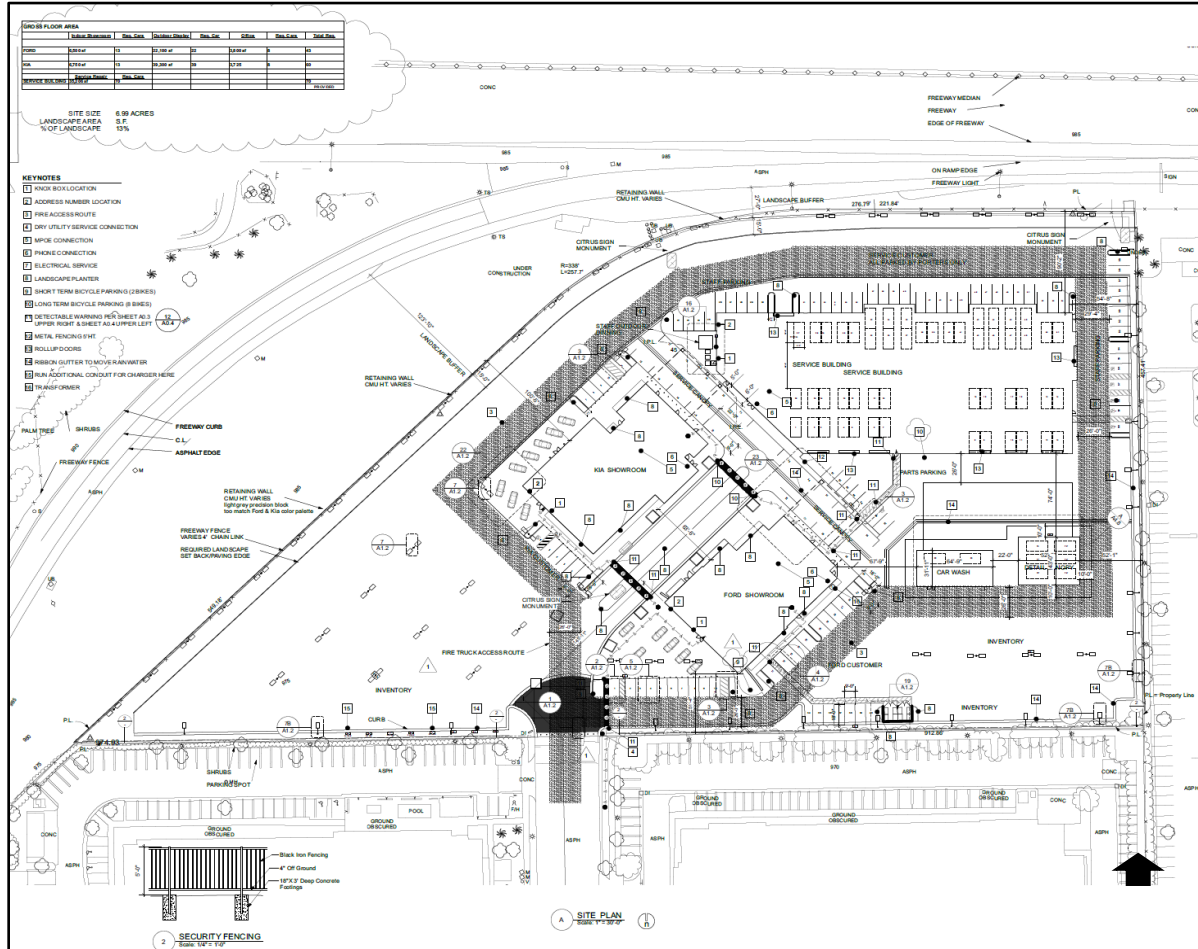
**Exhibit A: PROJECT LOCATION MAP**



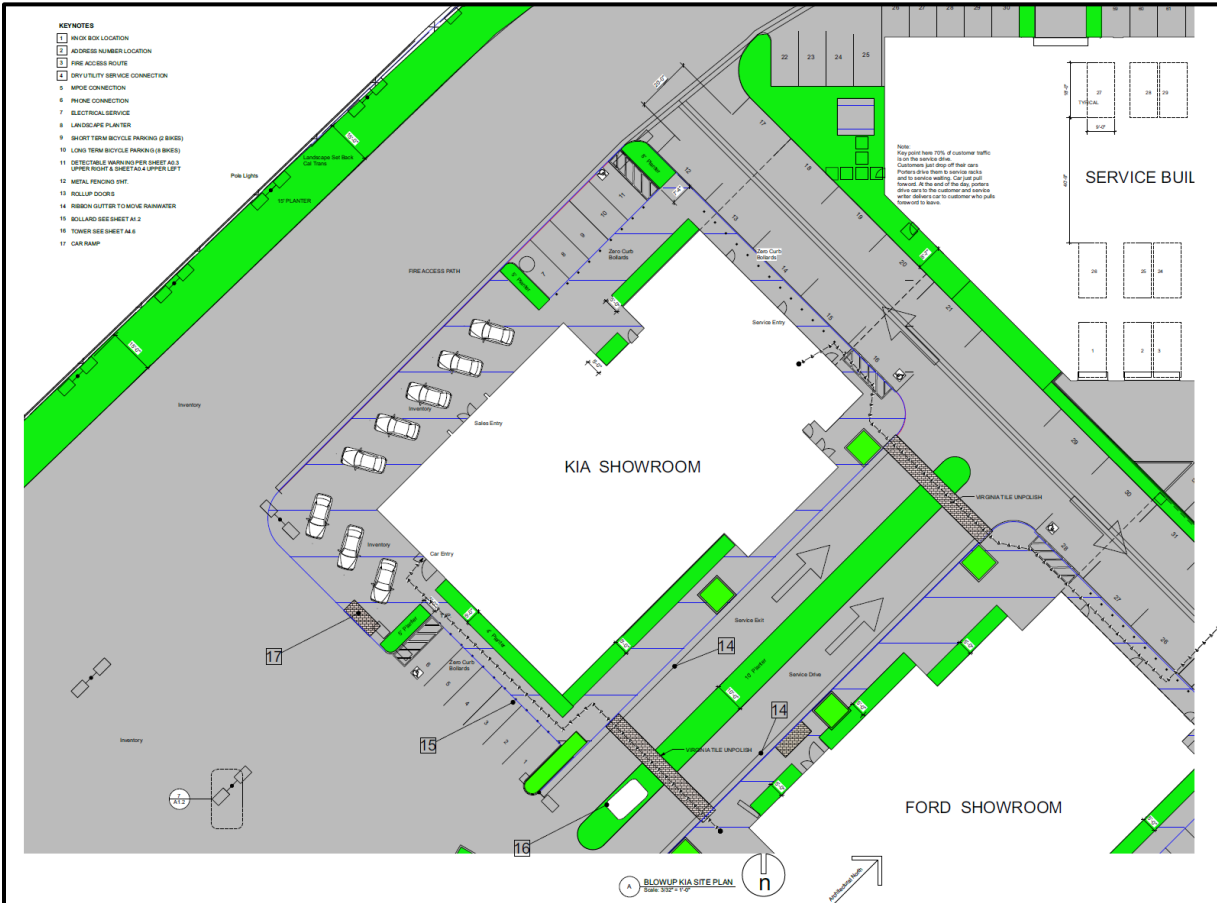
**Exhibit B: SPECIFIC PLAN LAND USE MAP**



**Exhibit C: SITE PLAN**

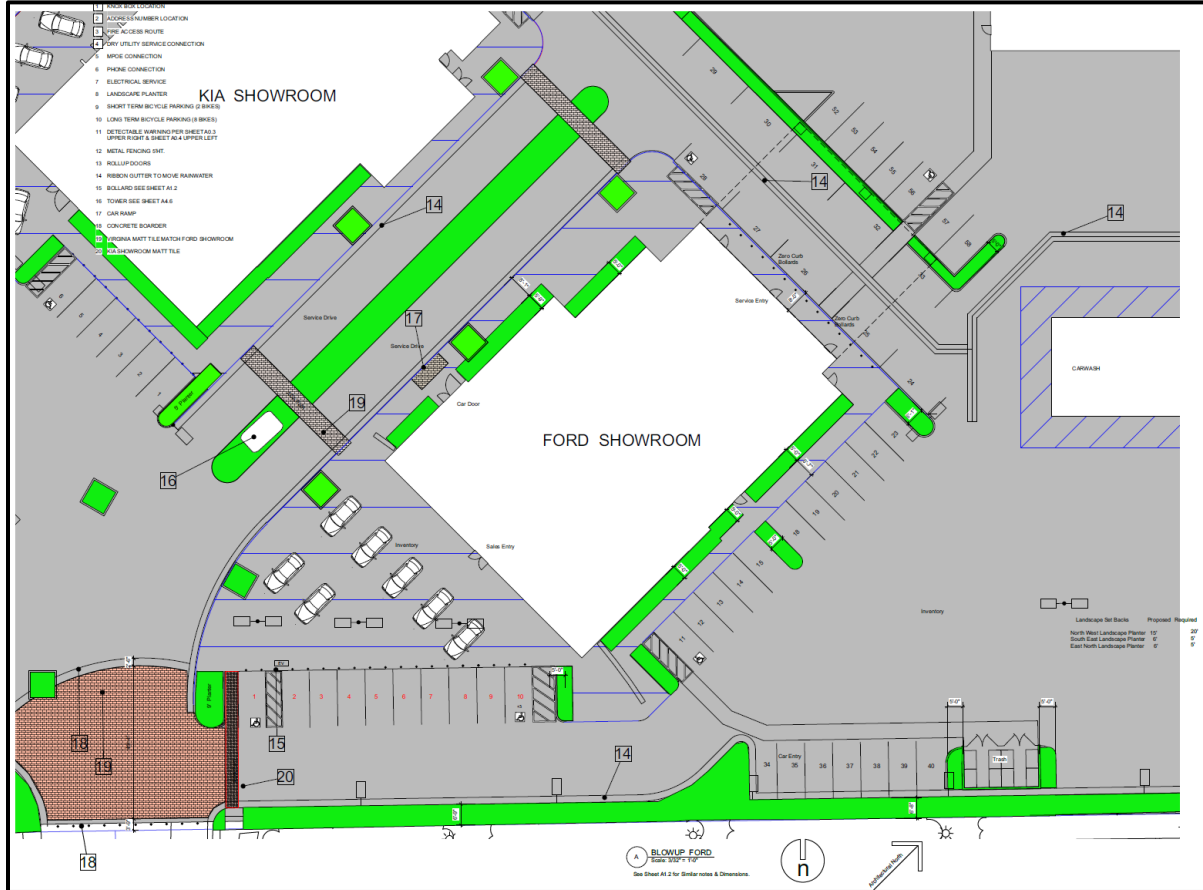


**Exhibit D: KIA SHOWROOM SITE PLAN**





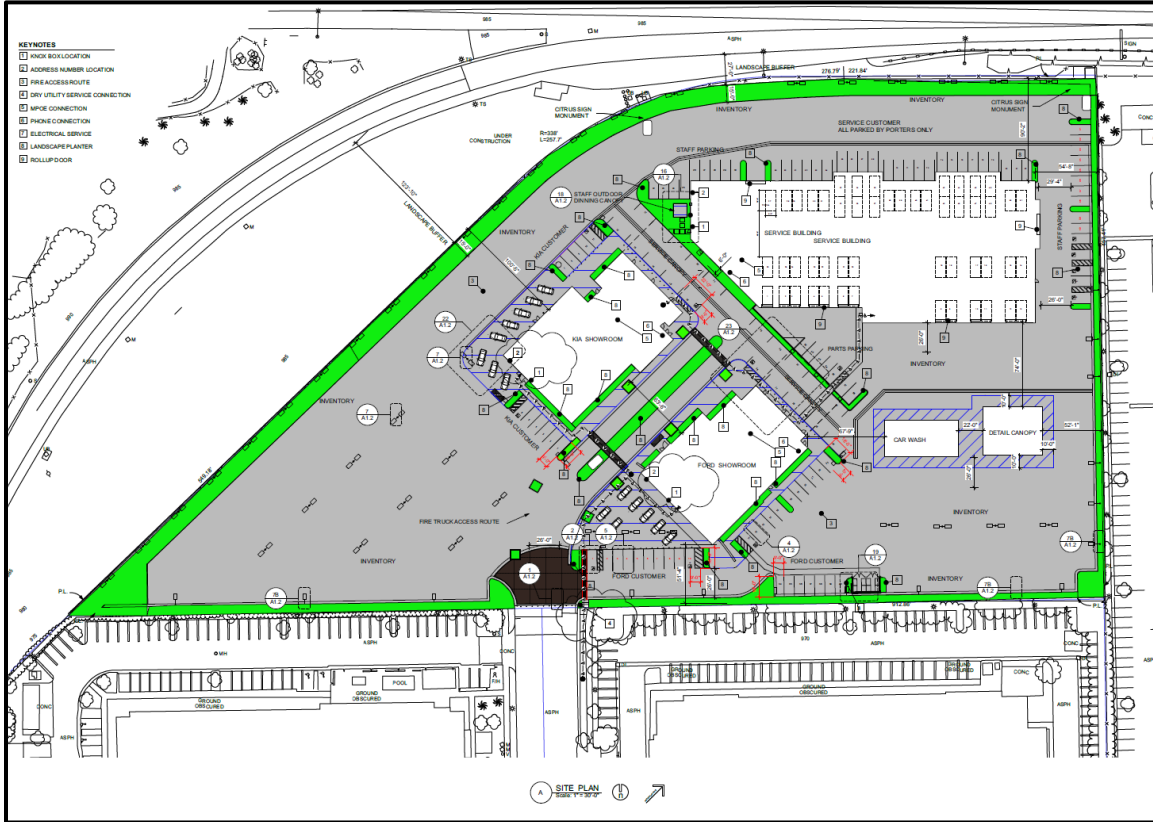
**Exhibit E: FORD SHOWROOM SITE PLAN**



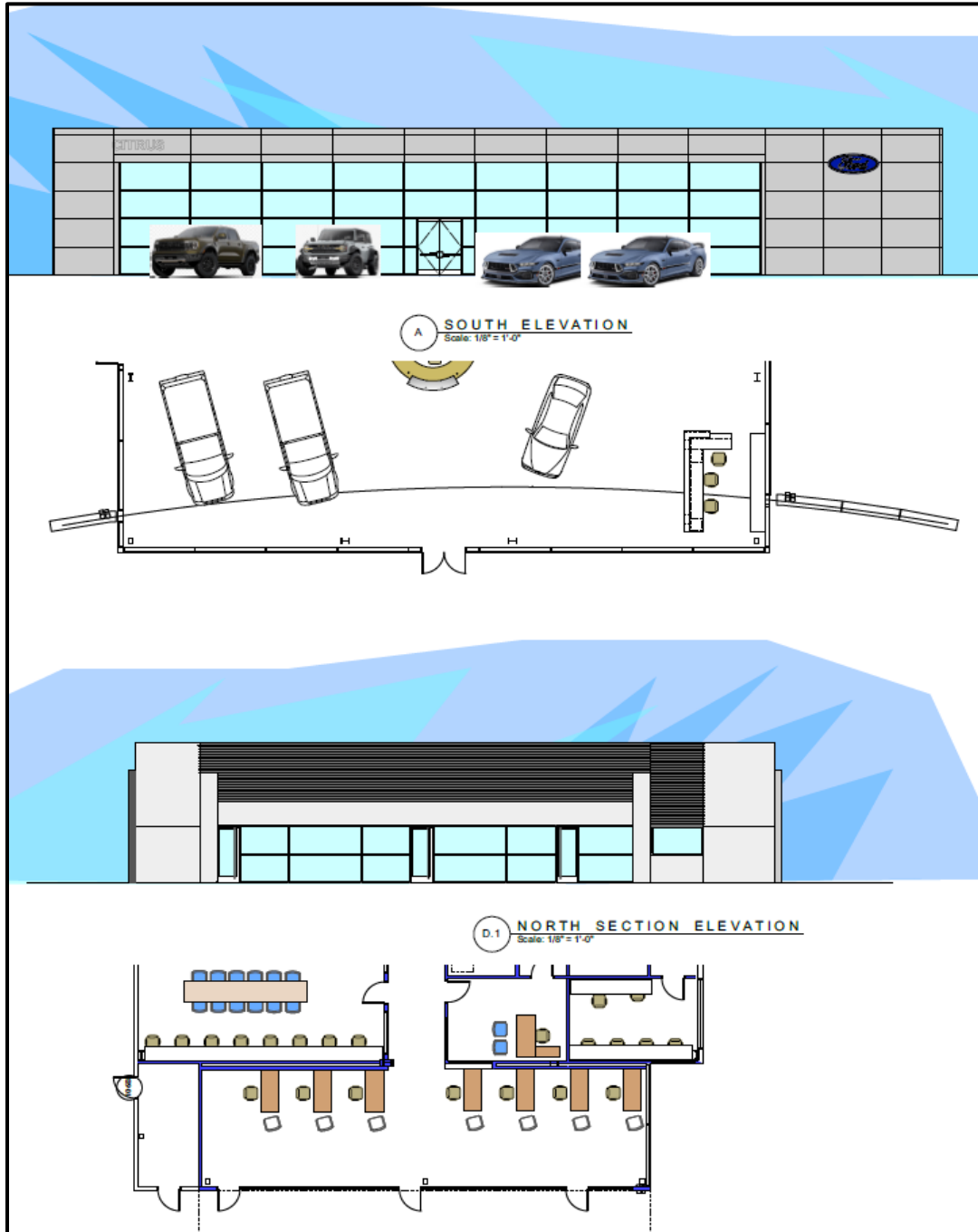
**Exhibit F: SERVICE BUILDING SITE PLAN**



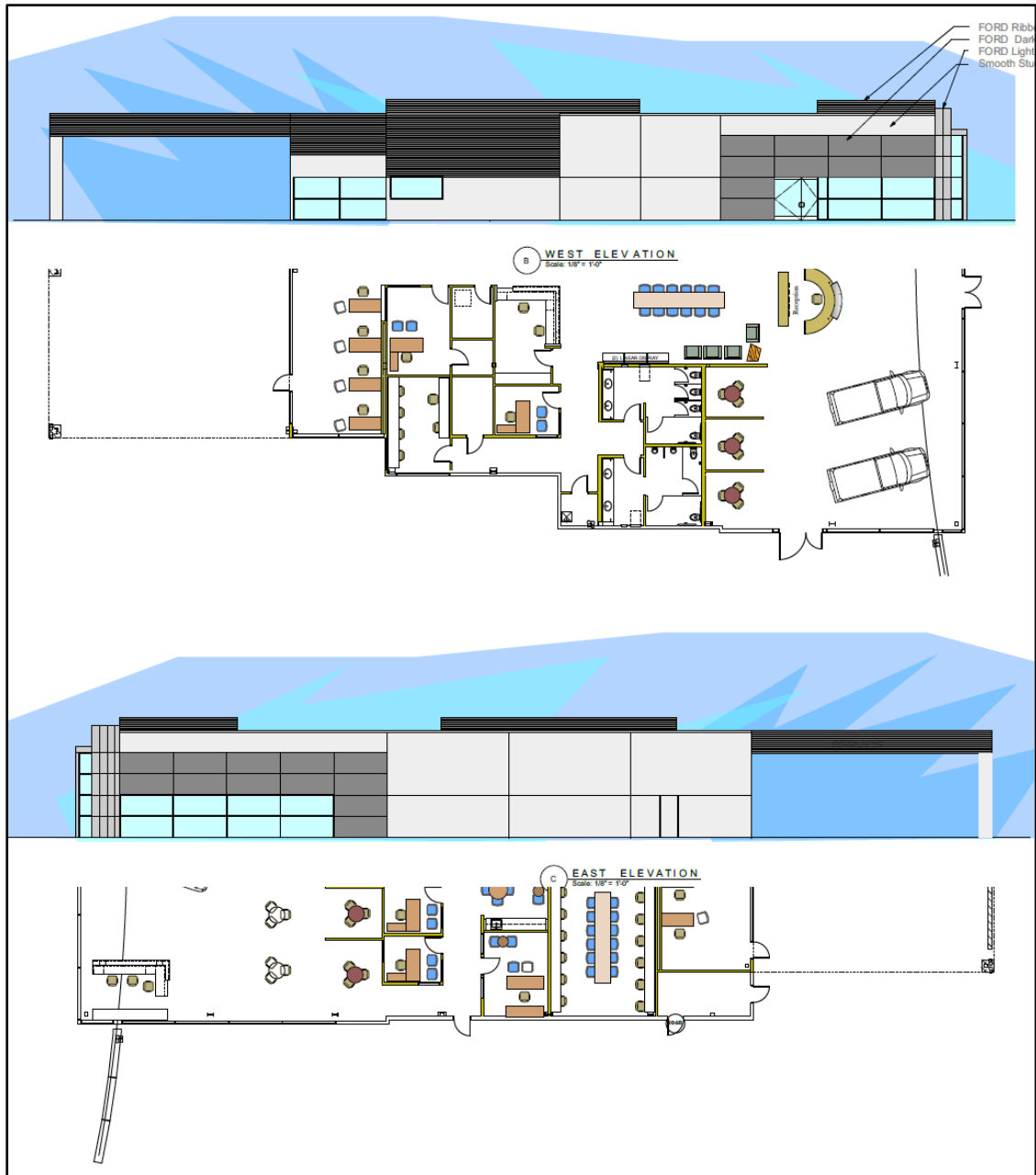
### Exhibit G: LANDSCAPE PLAN



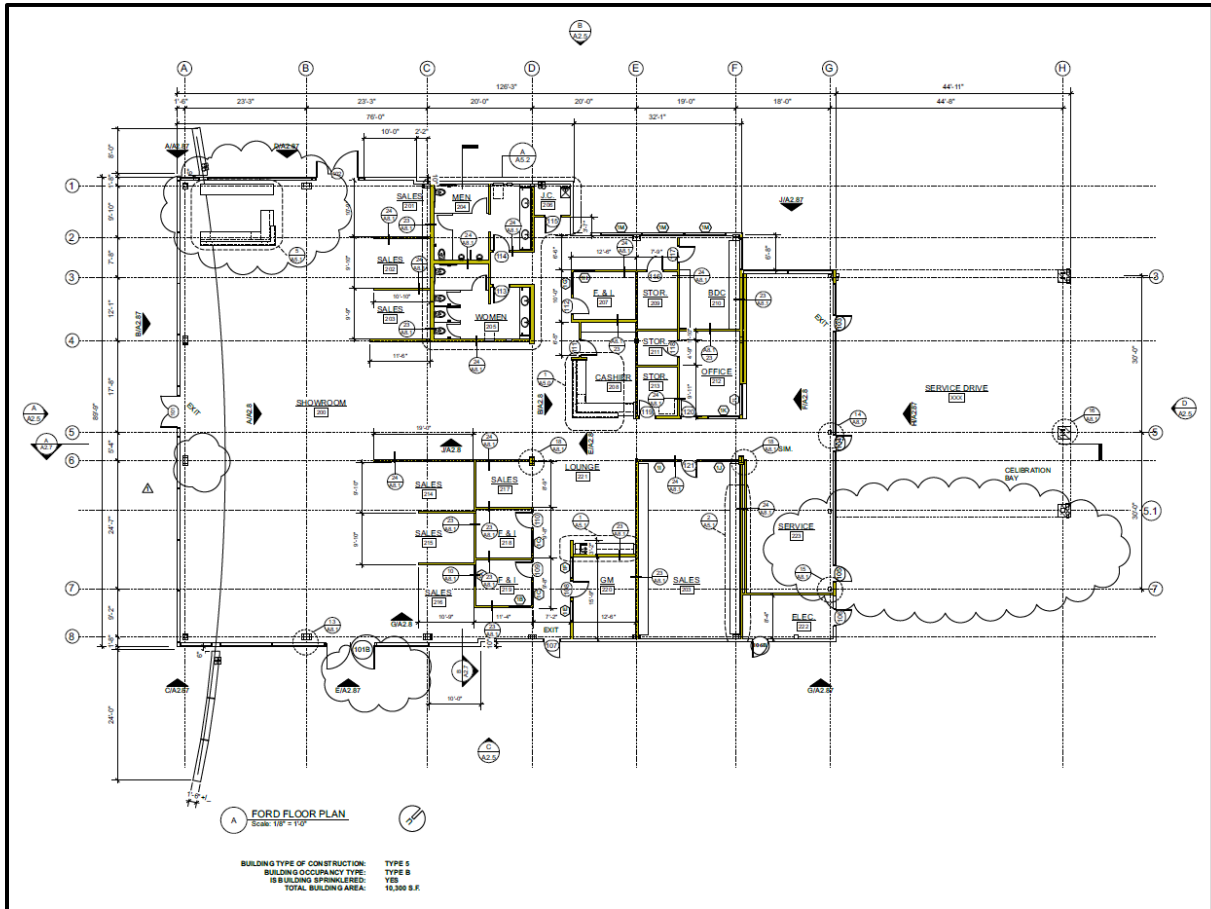
**Exhibit H: FORD ELEVATIONS**



**Exhibit I: FORD ELEVATIONS**



### Exhibit J: FORD SHOWROOM FLOOR PLAN



**Exhibit K: KIA ELEVATIONS**

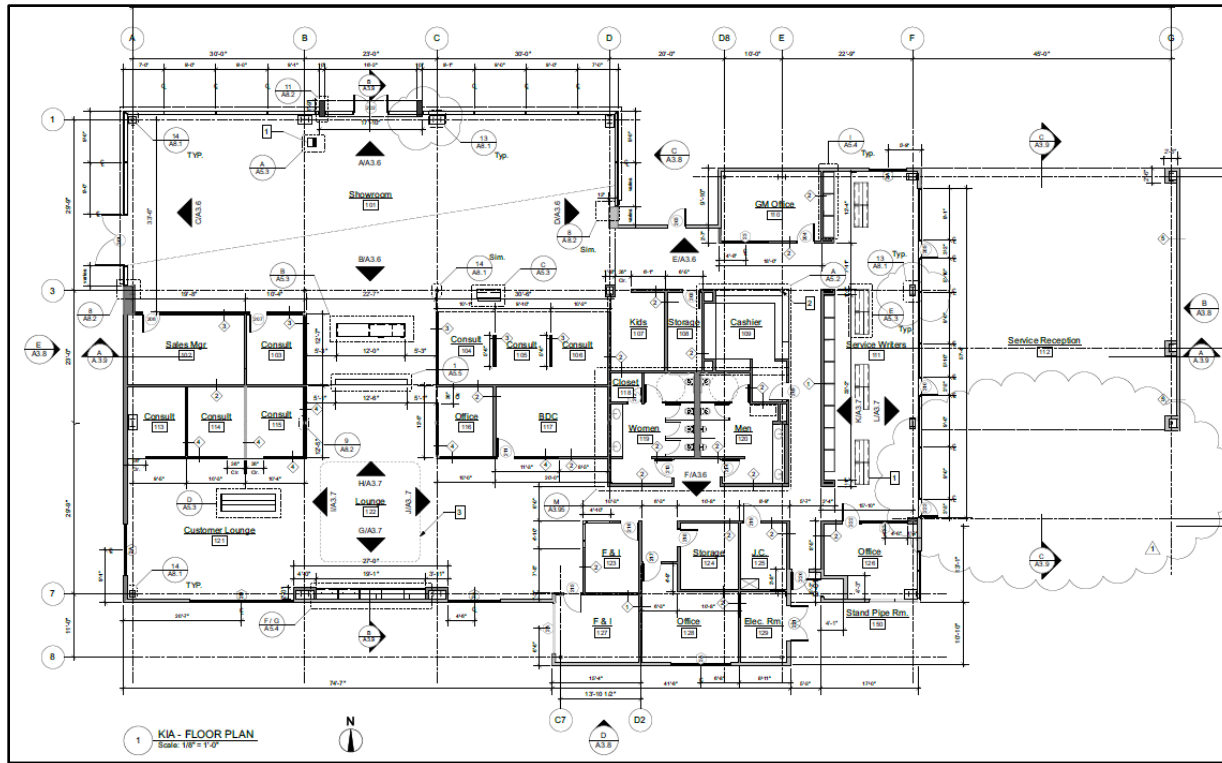


**Exhibit L: KIA ELEVATIONS**

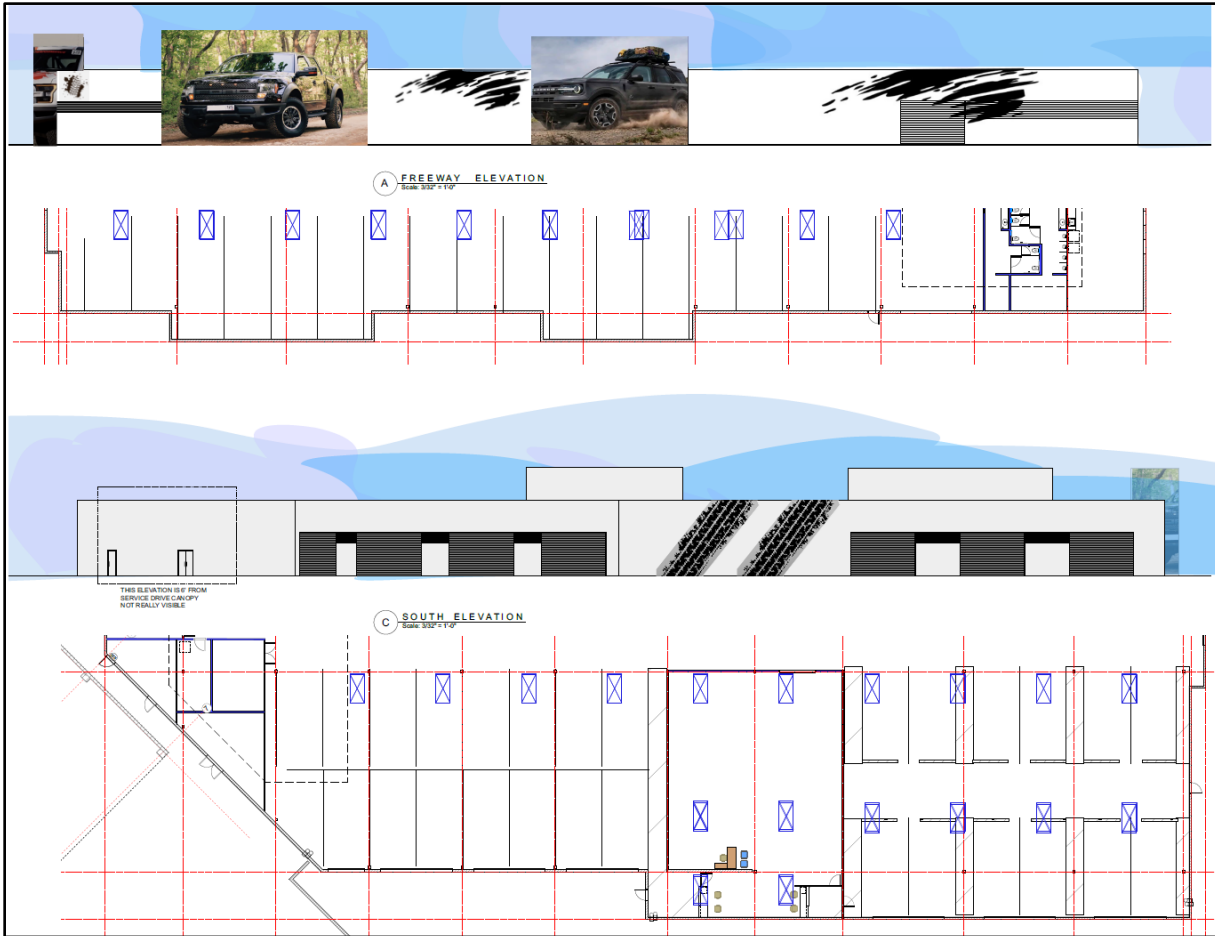




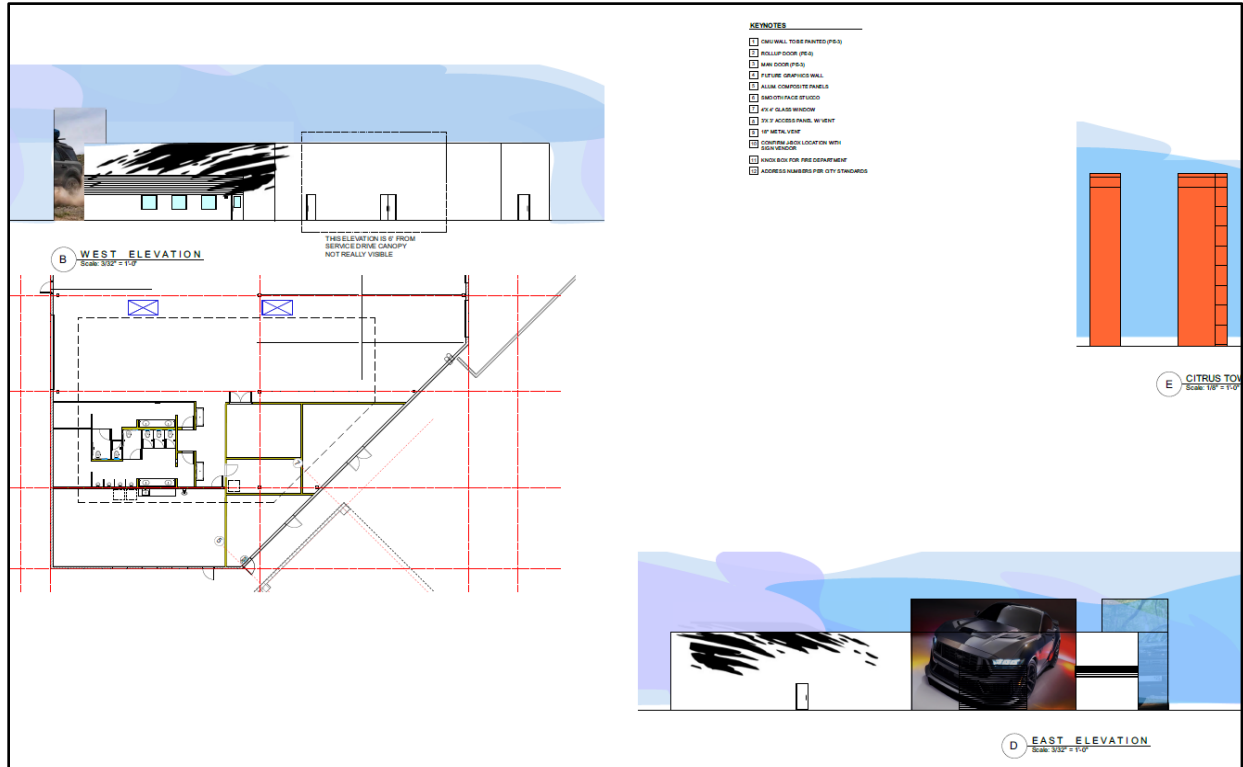
**Exhibit M: KIA SHOWROOM FLOOR PLAN**



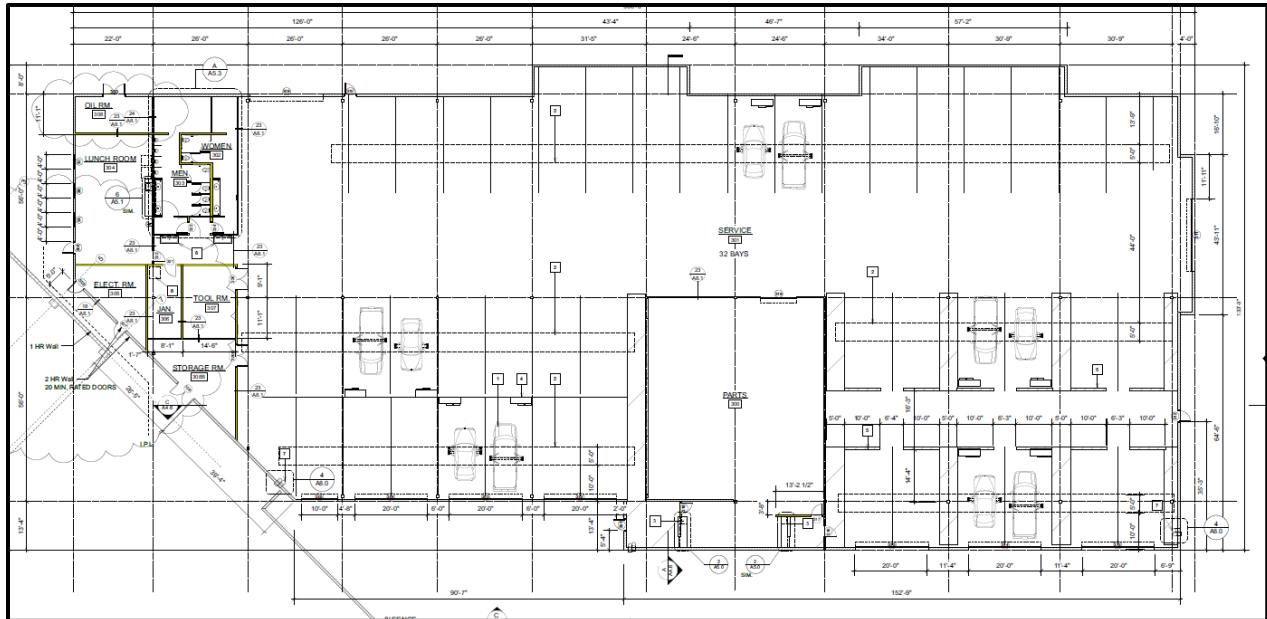
**Exhibit N: SERVICE BUILDING ELEVATIONS**



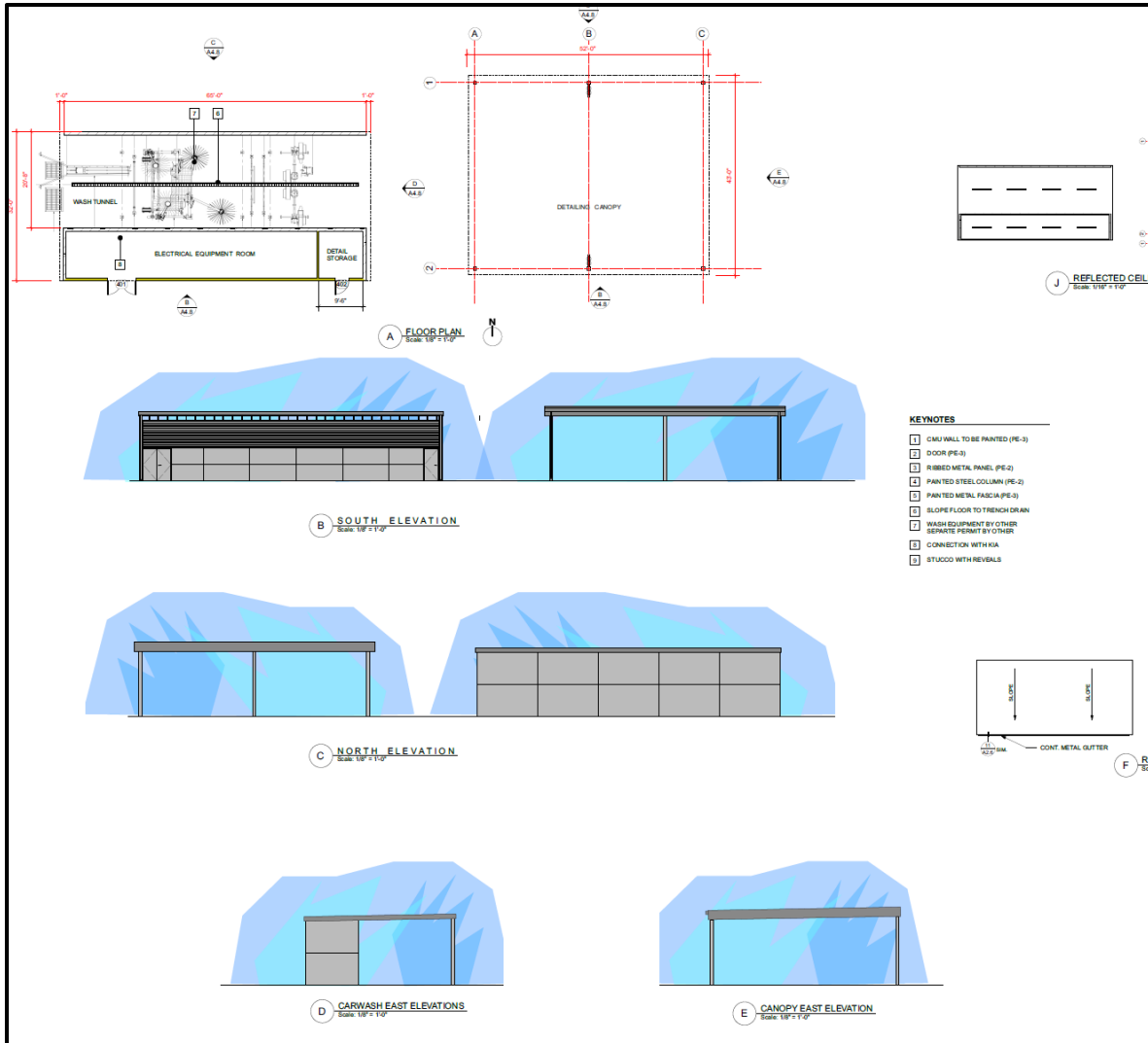
### Exhibit O: SERVICE BUILDING ELEVATIONS



**Exhibit P: SERVICE BUILDING FLOOR PLAN**



**Exhibit Q: CARWASH ELEVATIONS**



**Attachment A: Conditions of Approval**

*(Conditions of Approval follow this page)*

**Date Prepared:** 4/3/2024

**File No:** PDEV23-036

**Related Files:** N/A

**Project Description:** A hearing to consider a Development Plan to construct a new 60,889 square foot automotive dealership composed of a new Kia showroom, Ford showroom and service building on 6.99 acres of land located at the northeast corner of Guasti Road and Haven Avenue, within the Office land use designation of the Ontario Gateway Specific Plan. (APN: 0210-212-60); **submitted by Robert Plant.**

**Prepared By:** Luis E. Batres, Senior Planner  
Phone: 909.395.2431 (direct)  
Email: [Lbatres@ontarioca.gov](mailto:Lbatres@ontarioca.gov)

The Planning Department, Land Development Section, conditions of approval applicable to the above-described Project, are listed below. The Project shall comply with each condition of approval listed below:

**1.0 Standard Conditions of Approval.** The project shall comply with the *Standard Conditions for New Development*, adopted by City Council Resolution No. 2017-027 on April 18, 2017. A copy of the *Standard Conditions for New Development* may be obtained from the Planning Department or City Clerk/Records Management Department or by going to [ontarioca.gov](http://ontarioca.gov)

**2.0 Special Conditions of Approval.** In addition to the *Standard Conditions for New Development* identified in condition no. 1.0, above, the project shall comply with the following special conditions of approval:

**2.1** Time Limits.

(a) Development Plan approval shall become null and void 2 years following the effective date of application approval, unless a building permit is issued and construction is commenced, and diligently pursued toward completion, or a time extension has been approved by the Planning Director. This condition does not supersede any individual time limits specified herein, or any other departmental conditions of approval applicable to the Project, for the performance of specific conditions or improvements.

**2.2** General Requirements. The Project shall comply with the following general requirements:

(a) All construction documentation shall be coordinated for consistency, including, but not limited to, architectural, structural, mechanical, electrical, plumbing, landscape

and irrigation, grading, utility and street improvement plans. All such plans shall be consistent with the approved entitlement plans on file with the Planning Department.

**(b)** The project site shall be developed in conformance with the approved plans on file with the City. Any variation from the approved plans must be reviewed and approved by the Planning Department prior to building permit issuance.

**(c)** The herein-listed conditions of approval from all City departments shall be included in the construction plan set for project, which shall be maintained on site during project construction.

### **2.3** Landscaping.

**(a)** The Project shall provide and continuously maintain landscaping and irrigation systems in compliance with the provisions of Ontario Development Code Division 6.05 (Landscaping).

**(b)** Comply with the conditions of approval of the Planning Department; Landscape Planning Division.

**(c)** Landscaping shall not be installed until the Landscape and Irrigation Construction Documentation Plans required by Ontario Development Code Division 6.05 (Landscaping) have been approved by the Landscape Planning Division.

**(d)** Changes to approved Landscape and Irrigation Construction Documentation Plans, which affect the character or quantity of the plant material or irrigation system design, shall be resubmitted for approval of the revision by the Landscape Planning Division, prior to the commencement of the changes.

**2.4** Walls and Fences. All Project walls and fences shall comply with the requirements of Ontario Development Code Division 6.02 (Walls, Fences and Obstructions).

### **2.5** Parking, Circulation and Access.

**(a)** The Project shall comply with the applicable off-street parking, loading and lighting requirements of City of Ontario Development Code Division 6.03 (Off-Street Parking and Loading).

**(b)** All drive approaches shall be provided with an enhanced pavement treatment. The enhanced paving shall extend from the back of the approach apron, into the site, to the first intersecting drive aisle or parking space.

**(c)** Areas provided to meet the City's parking requirements, including off-street parking and loading spaces, access drives, and maneuvering areas, shall not be used for the outdoor storage of materials and equipment, nor shall it be used for any other purpose than parking.

**(d)** The required number of off-street parking spaces and/or loading spaces shall be provided at the time of site and/or building occupancy. All parking and loading spaces shall be maintained in good condition for the duration of the building or use.



**(e)** Parking spaces specifically designated and conveniently located for use by the physically disabled shall be provided pursuant to current accessibility regulations contained in State law (CCR Title 24, Part 2, Chapters 2B71, and CVC Section 22507.8).

**(f)** Bicycle parking facilities, including bicycle racks, lockers, and other secure facilities, shall be provided in conjunction with development projects pursuant to current regulations contained in CALGreen (CAC Title 24, Part 11). Final design and placement of bicycle parking facilities shall be subject to Planning Department review and approval.

**2.6** Outdoor Loading and Storage Areas.

**(a)** Loading facilities shall be designed and constructed pursuant to Development Code Division 6.03 (Off-Street Parking and Loading).

**(b)** Areas designated for off-street parking, loading, and vehicular circulation and maneuvering, shall not be used for the outdoor storage of materials or equipment.

**(c)** Outdoor loading and storage areas, and loading doors, shall be screened from public view pursuant to the requirements of Development Code Paragraph 6.02.025.A.2 (Screening of Outdoor Loading and Storage Areas, and Loading Doors) Et Seq.

**2.7** Site Lighting.

**(a)** All off-street parking facilities shall be provided with nighttime security lighting pursuant to Ontario Municipal Code Section 4-11.08 (Special Residential Building Provisions) and Section 4-11.09 (Special Commercial/Industrial Building Provisions), designed to confine emitted light to the parking areas. Parking facilities shall be lighted from sunset until sunrise, daily, and shall be operated by a photocell switch.

**(b)** Unless intended as part of a master lighting program, no operation, activity, or lighting fixture shall create illumination on any adjacent property.

**2.8** Mechanical and Rooftop Equipment.

**(a)** All exterior roof-mounted mechanical, heating and air conditioning equipment, and all appurtenances thereto, shall be completely screened from public view by parapet walls or roof screens that are architecturally treated so as to be consistent with the building architecture.

**(b)** All ground-mounted utility equipment and structures, such as tanks, transformers, HVAC equipment, and backflow prevention devices, shall be located out of view from a public street, or adequately screened through the use of landscaping and/or decorative low garden walls.

**2.9** Security Standards. The Project shall comply with all applicable requirements of Ontario Municipal Code Title 4 (Public Safety), Chapter 11 (Security Standards for Buildings).

**2.10** Signs.

**(a)** All Project signage shall comply with the requirements of Ontario Development Code Division 8.1 (Sign Regulations).

**2.11** Sound Attenuation. The Project shall be constructed and operated in a manner so as not to exceed the maximum interior and exterior noise levels set forth in Ontario Municipal Code Title 5 (Public Welfare, Morals, and Conduct), Chapter 29 (Noise).

**2.12** Environmental Requirements.

**(a)** If human remains are found during project grading/excavation/construction activities, the area shall not be disturbed until any required investigation is completed by the County Coroner and Native American consultation has been completed (if deemed applicable).

**(b)** If any archeological or paleontological resources are found during project grading/excavation/construction, the area shall not be disturbed until the significance of the resource is determined. If determined to be significant, the resource shall be recovered by a qualified archeologist or paleontologist consistent with current standards and guidelines, or other appropriate measures implemented.

**2.13** Indemnification. The applicant shall agree to defend, indemnify and hold harmless, the City of Ontario or its agents, officers, and employees from any claim, action or proceeding against the City of Ontario or its agents, officers or employees to attack, set aside, void or annul any approval of the City of Ontario, whether by its City Council, Planning Commission or other authorized board or officer. The City of Ontario shall promptly notify the applicant of any such claim, action or proceeding, and the City of Ontario shall cooperate fully in the defense.

**2.14** Additional Fees.

**(a)** Within 5 days following final application approval, the Notice of Determination ("NOD") filing fee shall be provided to the Planning Department. The fee shall be paid by check, made payable to the "Clerk of the Board of Supervisors", which shall be forwarded to the San Bernardino County Clerk of the Board of Supervisors, along with all applicable environmental forms/notices, pursuant to the requirements of the California Environmental Quality Act ("CEQA"). Failure to provide said fee within the time specified will result in the extension of the statute of limitations for the filing of a CEQA lawsuit from 30 days to 180 days.

**(b)** Within 5 days following final application approval, the Notice of Exemption ("NOE") filing fee shall be provided to the Planning Department. The fee shall be paid by check, made payable to the "Clerk of the Board of Supervisors", which shall be forwarded to the San Bernardino County Clerk of the Board of Supervisors, along with all applicable environmental forms/notices, pursuant to the requirements of the California Environmental Quality Act ("CEQA"). The filing of a NOE is voluntary; however, failure to provide said fee within the time specified will result in the extension of the statute of limitations for the filing of a CEQA lawsuit from 30 days to 180 days.

**(c)** After the Project's entitlement approval, and prior to issuance of final building permits, the Planning Department's Plan Check and Inspection fees shall be paid at the rate established by resolution of the City Council.

**2.15** Public Art. The Project is subject to the requirements of the City's Public Art Ordinance (Ontario Municipal Code Section 5-33.05. Private Art for Public Enjoyment in Commercial and Industrial Development Projects).

**2.16** Final Occupancy. The Project Architect of record will certify that construction of each building site and the exterior elevations of each structure shall be completed in compliance with the approved plans. Any deviation to approved plans shall require a resubmittal to the Planning Department for review and approval prior to construction. The Occupancy Release Request Form/Architect Certificate of Compliance shall be provided prior to final occupancy. After the receipt of this Certification, the Planning Department will conduct a final site and exterior elevations inspection. The Owner's Representative and Contractor shall be present.

**2.17** Additional Requirements.

**(a)** The name of "Citrus Paseo" has been approved for the private road to the south of this project, subject to the Property Owners Association approval. An approval letter from the Association shall be submitted to the Planning Department prior to occupancy.

**(b)** All signage shall be reviewed and approved under a separate application (Sign Program) and permit. During plan check a note shall be added to all Exhibits that are showing/illustrating proposed signs.

**(c)** During Building and Safety Plan Check the applicant shall revise the Parking Calculation provided on Sheet A1.0, to reflect the total number of parking spaces required by City and the total number of parking spaces being provided. Calculation shall also include the minimum parking required with ratios, for each type of proposed use (Indoor Showroom, Outdoor Display, Office, Service Building). The project shall comply with all parking requirements and such requirements shall be indicated on the final approved plan set, as noted below on COAs "d" through "i".

**(d)** Project shall provide a minimum of 215 parking spaces on site. During plan check, all required parking spaces shall be numbered on the Site Plan.

**(e)** All required Outdoor Display parking spaces for each Dealer (Kia/Ford) shall be labeled as "Display Space Only".

**(f)** A minimum of 16 parking spaces shall be labeled as "Office Parking Only" for Ford.

**(g)** A minimum of 15 parking spaces shall be labeled as "Office Parking Only" for Kia.

**(h)** A minimum of 88 parking spaces shall be provided for the Service Building and they shall all be labeled as "Service Building Parking Only".

**(i)** All Guest Parking spaces shall be labeled as "Guest Parking Only".

**(j)** During Building and Safety Plan Check the applicant shall update the Landscape Plan to reflect the minimum landscape percentage required for the project/site and the percentage of landscape being provided/proposed. The project shall comply with all

landscape requirements, and such requirements shall be indicated on the final approved plan set.

**(k)** Prior to permit issuance, the final elevation designs shall receive final approval from Staff. The applicant shall work with Staff on the final design to incorporate appropriate architectural elements and details, including additional glass/spandrel, etc., to ensure a high-quality design is achieved on all elevations, especially focal areas and high-visibility areas.

**(l)** The construction plans submitted to Building and Safety for plan check shall correctly reflect the proper orientation/direction for each elevation - the South Elevation for the Kia Building shall be changed to read East Elevation.

**(m)** All along the North property line (Caltrans right-a-way) a 6-foot tall minimum decorative wrought iron fence shall be provided to match Mercedes Benz next door. Wrought iron fence shall be powder coated to prevent rust.

**(n)** During plan check all building exterior elevations shall clearly call out all materials, colors and textures being proposed. They shall be called out on the elevations as well as clearly incorporated into a legend/table, with a full legend that identifies everything.

**(o)** No Art Murals or exterior building decals are permitted for this Project.

**(p)** Applicant shall work with staff during the plan check process to replace the proposed vehicle images/murals/decals along the Freeway Elevation, West Elevation and East Elevation for the Service Building, with attractive architectural towers that incorporate the same architectural elements/details, features and materials that are being proposed on the Kia and Ford Showroom buildings.

**(q)** All architectural towers shall provide an adequate return from the main face of the building and shall be enclosed and completed on all four sides. The final design of towers shall be included as part of the final approval of the elevations.

**(r)** All buildings shall feature a smooth stucco finish, if stucco is being proposed.

**(s)** Main entry driveway and all exterior building plaza areas shall feature decorative color paving with a decorative design.

**(t)** Required path of travel from the south property line to buildings, shall also feature decorative color paving.

**(u)** All roof mechanical equipment shall not be visible from public views, including freeway.

**(v)** Site plan shall be revised to include a Note along the north property line that indicates if an agreement with Caltrans is not executed to landscape 5-feet along the Caltrans right-a-way (project frontage), a 20-foot wide landscape setback will be provided on the project.

**(w)** The final elevations for the service building shall require final review and approval from the Planning Department prior to permit issuance. The service building shall

incorporate architectural elements/features that similar to the showroom building, including but not limited to tower features, vertical and horizontal articulation, smooth stucco, spandrel, among others.

**(x)** Project shall incorporate decorative lighting fixtures to match the architectural style and materials of the buildings.

**(y)** Decorative up and down lighting shall be incorporated along key landscape areas to enhance the look of the project during the evening.

**(z)** During plan check a separate exhibit shall be submitted that clearly shows all the proposed locations of the up and down-lighting and color cut-sheets of the fixtures shall be submitted for review and approval with the project. Applicant shall work with staff to finalize all location and fixtures prior to building permits being issued.

**(aa)** All proposed fencing and gates along the south property line shall be powder coated to prevent rust.

**(bb)** During plan check all Exhibits date shall be updated to reflect the correct number and totals for each proposed building and proposed use. In addition, all Exhibits shall be updated and coordinated so that they all match.



**ENGINEERING DEPARTMENT  
CONDITIONS OF APPROVAL**

(Land Development Division, Environmental Section, Traffic & Transportation Division, Ontario Municipal Utilities Company and Broadband Operations & Investment and Revenue Resources Department Conditions incorporated)

<input checked="" type="checkbox"/> <b>DEVELOPMENT PLAN</b> <input type="checkbox"/> OTHER	<input type="checkbox"/> PARCEL MAP <input type="checkbox"/> TRACT MAP <input type="checkbox"/> FOR CONDOMINIUM PURPOSES
<b>PROJECT FILE NO. <u>PDEV23-036</u></b>  <b>RELATED FILE NO(S).</b> _____	
<input checked="" type="checkbox"/> <b>ORIGINAL</b> <input type="checkbox"/> REVISED: ___/___/___	

**CITY PROJECT ENGINEER & PHONE NO:** Brenda Fregoso (909) 395-2140 *BF*

**CITY PROJECT PLANNER & PHONE NO:** Luis Batres (909) 395-2431

**DAB MEETING DATE:** April 15, 2024

**PROJECT NAME / DESCRIPTION:** A Development Plan to construct 3 commercial buildings totaling 60,889 square feet on 6.99 acres of land located at the northeast corner of Guasti Road and Haven Avenue, within the Office land use district of the Ontario Gateway Specific Plan (APN: 0210-212-60).  
**LOCATION:** NEC of Guasti Road and Haven Avenue

**APPLICANT:** Robert Plant

**REVIEWED BY:** *Raymond Lee*      *4/4/24*  
 Raymond Lee, P.E.      Date

**APPROVED BY:** *[Signature]*      *4-8-24*  
 Khoi Do, P.E.      Date  
 City Engineer



**THIS PROJECT SHALL COMPLY WITH THE REQUIREMENTS SET FORTH IN THE GENERAL STANDARD CONDITIONS OF APPROVAL ADOPTED BY THE CITY COUNCIL (RESOLUTION NO. 2017-027) AND THE PROJECT SPECIFIC CONDITIONS OF APPROVAL SPECIFIED HEREIN. ONLY APPLICABLE CONDITIONS OF APPROVAL ARE CHECKED. THE APPLICANT SHALL BE RESPONSIBLE FOR THE COMPLETION OF ALL APPLICABLE CONDITIONS OF APPROVAL PRIOR TO FINAL MAP OR PARCEL MAP APPROVAL, ISSUANCE OF PERMITS AND/OR OCCUPANCY CLEARANCE, AS SPECIFIED IN THIS REPORT.**

**1. PRIOR TO FINAL MAP OR PARCEL MAP APPROVAL, APPLICANT SHALL:** Check When Complete

- 1.01 Dedicate to the City of Ontario, the right-of-way, described below:   
\_\_\_\_\_ feet on \_\_\_\_\_  
Property line corner 'cut-back' required at the intersection of \_\_\_\_\_  
and \_\_\_\_\_.
- 1.02 Dedicate to the City of Ontario, the following easement(s): \_\_\_\_\_   
\_\_\_\_\_
- 1.03 Restrict vehicular access to the site as follows: \_\_\_\_\_
- 1.04 Vacate the following street(s) and/or easement(s):   
A. All interfering on-site easements shall be quitclaimed, vacated, and/or submit non-interference letter from affected owner/utility company.
- 1.05 Submit a copy of a recorded private reciprocal use agreement or easement. The agreement or easement shall ensure, at a minimum, common ingress and egress and joint maintenance of all common access areas and drive aisles.
- 1.06 Provide (original document) Covenants, Conditions and Restrictions (CC&Rs) as applicable to the project and as approved by the City Attorney and the Engineering and Planning Departments, ready for recordation with the County of San Bernardino. The CC&Rs shall provide for, but not be limited to, common ingress and egress, joint maintenance responsibility for all common access improvements, common facilities, parking areas, utilities, median and landscaping improvements and drive approaches, in addition to maintenance requirements established in the Water Quality Management Plan (WQMP), as applicable to the project. The CC&Rs shall also address the maintenance and repair responsibility for public improvements/utilities (sewer, water, storm drain, recycled water, etc.) located within open space/easements. In the event of any maintenance or repair of these facilities, the City shall only restore disturbed areas to current City Standards.
- 1.07 For all development occurring south of the Pomona Freeway (60-Freeway) and within the specified boundary limits (per Boundary Map found at <http://tceplumecleanup.com/>), the property developer/owner is made aware of the South Archibald Trichloroethylene (TCE) Plume "Disclosure Letter". Property owner may wish to provide this Letter as part of the Real Estate Transfer Disclosure requirements under California Civil Code Section 1102 et seq. This may include notifications in the Covenants, Conditions and Restrictions (CC&Rs) or other documents related to property transfer and disclosures. Additional information on the plume is available from the Santa Ana Regional Water Quality Control Board at [http://geotracker.waterboards.ca.gov/profile\\_report?global\\_id=T10000004658](http://geotracker.waterboards.ca.gov/profile_report?global_id=T10000004658).
- 1.08 File an application for Reapportionment of Assessment, together with payment of a reapportionment processing fee, for each existing assessment district listed below. Contact the Financial Services Department at (909) 395-2124 regarding this requirement.   
  
(1) \_\_\_\_\_  
(2) \_\_\_\_\_
- 1.09 Prepare a fully executed Subdivision Agreement (on City approved format and forms) with accompanying security as required, or complete all public improvements.



- 1.10 Provide a monument bond (i.e. cash deposit) in an amount calculated by the City's approved cost estimate spreadsheet (available for download on the City's website: [www.ontarioca.gov](http://www.ontarioca.gov)) or as specified in writing by the applicant's Registered Engineer or Licensed Land Surveyor of Record and approved by the City Engineer, whichever is greater.
- 1.11 Provide a preliminary title report current to within 30 days.
- 1.12 File an application, together with an initial deposit (if required), to establish a Community Facilities District (CFD) pursuant to the Mello-Roos Community Facilities District Act of 1982. The application and fee shall be submitted a minimum of four (4) months prior to final subdivision map approval, and the CFD shall be established prior to final subdivision map approval or issuance of building permits, whichever occurs first. The CFD shall be established upon the subject property to provide funding for various City services. An annual special tax shall be levied upon each parcel or lot in an amount to be determined. The special tax will be collected along with annual property taxes. The City shall be the sole lead agency in the formation of any CFD. Contact Investment and Revenue Resources at (909) 395-2341 to initiate the CFD application process.
- 1.13 Ontario Ranch Developments: 
  - 1) Provide evidence of final cancellation of Williamson Act contracts associated with this tract, prior to approval of any final subdivision map. Cancellation of contracts shall have been approved by the City Council.
  - 2) Provide evidence of sufficient storm water capacity availability equivalents (Certificate of Storm Water Treatment Equivalents).
  - 3) Provide evidence of sufficient water availability equivalents (Certificate of Net MDD Availability).
- 1.14 Other conditions: \_\_\_\_\_

**2. PRIOR TO ISSUANCE OF ANY PERMITS, APPLICANT SHALL:**

**A. GENERAL  
 (Permits includes Grading, Building, Demolition and Encroachment)**

- 2.01 Record Parcel Map/Tract Map No. \_\_\_\_\_ pursuant to the Subdivision Map Act and in accordance with the City of Ontario Municipal Code.
- 2.02 Submit a PDF of the recorded map to the City Engineer's office.
- 2.03 **Note that the subject parcel is a recognized parcel in the City of Ontario per PM No. 18094 recorded under Document Number 2007-0617884 in the County of San Bernardino.**
- 2.04 Note that the subject parcel is an 'unrecognized' parcel in the City of Ontario and shall require a Certificate of Compliance to be processed unless a deed is provided confirming the existence of the parcel prior to the date of March 4, 1972.
- 2.05 Apply for a: 
  - Certificate of Compliance with a Record of Survey;
  - Lot Line Adjustment (Record a Conforming Deed with the County of San Bernardino within six months of the recordation of the Lot Line Adjustment to conform the new LLA legal description. Submit a copy of the recorded Conforming Deed to the Engineering Department.);
  - Make a Dedication of Easement.





- 2.06 **Provide (original document) Covenants, Conditions and Restrictions (CC&R's), as applicable to the project, and as approved by the City Attorney and the Engineering and Planning Departments, ready for recordation with the County of San Bernardino. The CC&R's shall provide for, but not be limited to, common ingress and egress, joint maintenance of all common access improvements, common facilities, parking areas, utilities and drive approaches in addition to maintenance requirements established in the Water Quality Management Plan (WQMP), as applicable to the project.**
  
- 2.07 For all development occurring south of the Pomona Freeway (60-Freeway) and within the specified boundary limits (per Boundary Map found at <http://tceplumecleanup.com>), the property developer/owner is made aware of the South Archibald Trichloroethylene (TCE) Plume "Disclosure Letter". Property owner may wish to provide this Letter as part of the Real Estate Transfer Disclosure requirements under California Civil Code Section 1102 et seq. This may include notifications in the Covenants, Conditions and Restrictions (CC&Rs) or other documents related to property transfer and disclosures. Additional information on the plume is available from the Santa Ana Regional Water Quality Control Board at [http://geotracker.waterboards.ca.gov/profile\\_report?global\\_id=T10000004658](http://geotracker.waterboards.ca.gov/profile_report?global_id=T10000004658).
  
- 2.08 **Submit a soils/geology report.**
  
- 2.09 Other Agency Permit/Approval: Submit a copy of the approved permit and/or other form of approval of the project from the following agency or agencies: 
  - State of California Department of Transportation (Caltrans)
  - San Bernardino County Road Department (SBCRD)
  - San Bernardino County Flood Control District (SBCFCD)
  - Federal Emergency Management Agency (FEMA)
  - Cucamonga Valley Water District (CVWD) for sewer/water service
  - United States Army Corps of Engineers (USACE)
  - California Department of Fish & Game
  - Inland Empire Utilities Agency (IEUA)
  - Other: \_\_\_\_\_
  
- 2.10 Dedicate to the City of Ontario the right-of-way described below: 

\_\_\_\_\_ feet on \_\_\_\_\_

Property line corner 'cut-back' required at the intersection of \_\_\_\_\_  
and \_\_\_\_\_.
  
- 2.11 **Dedicate to the City of Ontario the following easement(s):** 
  - a) **See attached OMUC Utilities Engineering Division Conditions of Approval for additional easement conditions.**
  - b) **Public Utility Easement (PUE) with dimensions 60'x120' located at the North-East corner of the site.**
  - c) **Public Access Easement for ingress and egress to accommodate future construction vehicles within the fire access route.**
  - d) **20' Public Utility Easement (PUE) centered along proposed 24" sewer**
  
- 2.12 **Vacate the following street(s) and/or easement(s):** 
  - a) **All interfering on-site easements shall be quitclaimed, vacated, and/or submit non-interference letter from affected owner/utility company.**
  
- 2.13 Ontario Ranch Developments: 
  - 1) Submit a copy of the permit from the San Bernardino County Health Department to the Engineering Department and the Ontario Municipal Utilities Company (OMUC) for the destruction/abandonment of the on-site water well. The well shall be destroyed/abandoned in accordance with the San Bernardino County Health Department guidelines.



2) Make a formal request to the City of Ontario Engineering Department for the proposed temporary use of an existing agricultural water well for purposes other than agriculture, such as grading, dust control, etc. Upon approval, the Applicant shall enter into an agreement with the City of Ontario and pay any applicable fees as set forth by said agreement.

3) Design proposed retaining walls to retain up to a maximum of three (3) feet of earth. In no case shall a wall exceed an overall height of nine (9) feet (i.e. maximum 6-foot high wall on top of a maximum 3-foot high retaining wall).

- 2.14** **Submit a security deposit to the Engineering Department to guarantee construction of the public improvements required herein valued at 100% of the approved construction cost estimate. Security deposit shall be in accordance with the City of Ontario Municipal Code. Security deposit will be eligible for release, in accordance with City procedure, upon completion and acceptance of said public improvements.**
- 2.15** **The applicant/developer shall submit all necessary survey documents prepared by a Licensed Surveyor registered in the State of California detailing all existing survey monuments in and around the project site. These documents are to be reviewed and approved by the City Survey Office.**
- 2.16** **Pay all Development Impact Fees (DIF) to the Building Department. Storm Drain Development Impact Fee, approximately \$24,576 shall be paid to the Building Department. Final fee shall be determined based on the approved site plan and the DIF rate at the time of payment.**
- 2.17** **Other conditions:** \_\_\_\_\_



**B. PUBLIC IMPROVEMENTS**  
 (See attached Exhibit 'A' for plan check submittal requirements.)

**2.18** Design and construct full public improvements in accordance with the City of Ontario Municipal Code, current City standards and specifications, master plans and the adopted specific plan for the area, if any. These public improvements shall include, but not be limited to, the following (checked boxes):

Improvement	Guasti Road	Public Sewer Easement	-	-
Curb and Gutter	<input type="checkbox"/> New; ___ ft. from C/L <input type="checkbox"/> Replace damaged <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New; ___ ft. from C/L <input type="checkbox"/> Replace damaged <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New; ___ ft. from C/L <input type="checkbox"/> Replace damaged <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New; ___ ft. from C/L <input type="checkbox"/> Replace damaged <input type="checkbox"/> Remove and replace
AC Pavement	<input type="checkbox"/> Replacement <input type="checkbox"/> Widen ___ additional feet along frontage, including pavm't transitions	<input type="checkbox"/> Replacement <input type="checkbox"/> Widen ___ additional feet along frontage, including pavm't transitions	<input type="checkbox"/> Replacement <input type="checkbox"/> Widen ___ additional feet along frontage, including pavm't transitions	<input type="checkbox"/> Replacement <input type="checkbox"/> Widen ___ additional feet along frontage, including pavm't transitions
PCC Pavement (Truck Route Only)	<input type="checkbox"/> New <input type="checkbox"/> Modify existing	<input type="checkbox"/> New <input type="checkbox"/> Modify existing	<input type="checkbox"/> New <input type="checkbox"/> Modify existing	<input type="checkbox"/> New <input type="checkbox"/> Modify existing
Drive Approach	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace
Sidewalk	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace
ADA Access Ramp	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace
Parkway	<input type="checkbox"/> Trees <input type="checkbox"/> Landscaping (w/irrigation)	<input type="checkbox"/> Trees <input type="checkbox"/> Landscaping (w/irrigation)	<input type="checkbox"/> Trees <input type="checkbox"/> Landscaping (w/irrigation)	<input type="checkbox"/> Trees <input type="checkbox"/> Landscaping (w/irrigation)
Raised Landscaped Median	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace	<input type="checkbox"/> New <input type="checkbox"/> Remove and replace
Fire Hydrant	<input type="checkbox"/> New / Upgrade <input type="checkbox"/> Relocation	<input type="checkbox"/> New / Upgrade <input type="checkbox"/> Relocation	<input type="checkbox"/> New / Upgrade <input type="checkbox"/> Relocation	<input type="checkbox"/> New / Upgrade <input type="checkbox"/> Relocation



<b>Sewer (see Sec. 2.C)</b>	<input type="checkbox"/> Main <input type="checkbox"/> Lateral	<input checked="" type="checkbox"/> <b>Main</b> <input type="checkbox"/> Lateral	<input type="checkbox"/> Main <input type="checkbox"/> Lateral	<input type="checkbox"/> Main <input type="checkbox"/> Lateral
<b>Water (see Sec. 2.D)</b>	<input type="checkbox"/> Main <input checked="" type="checkbox"/> <b>Service</b>	<input type="checkbox"/> Main <input type="checkbox"/> Service	<input type="checkbox"/> Main <input type="checkbox"/> Service	<input type="checkbox"/> Main <input type="checkbox"/> Service
<b>Recycled Water (see Sec. 2.E)</b>	<input type="checkbox"/> Main <input type="checkbox"/> Service	<input type="checkbox"/> Main <input type="checkbox"/> Service	<input type="checkbox"/> Main <input type="checkbox"/> Service	<input type="checkbox"/> Main <input type="checkbox"/> Service
<b>Traffic Signal System (see Sec. 2.F)</b>	<input type="checkbox"/> New <input type="checkbox"/> Modify existing	<input type="checkbox"/> New <input type="checkbox"/> Modify existing	<input type="checkbox"/> New <input type="checkbox"/> Modify existing	<input type="checkbox"/> New <input type="checkbox"/> Modify existing
<b>Traffic Signing and Striping (see Sec. 2.F)</b>	<input type="checkbox"/> New <input type="checkbox"/> Modify existing	<input type="checkbox"/> New <input type="checkbox"/> Modify existing	<input type="checkbox"/> New <input type="checkbox"/> Modify existing	<input type="checkbox"/> New <input type="checkbox"/> Modify existing
<b>Street Light (see Sec. 2.F)</b>	<input type="checkbox"/> New / Upgrade <input type="checkbox"/> Relocation	<input type="checkbox"/> New / Upgrade <input type="checkbox"/> Relocation	<input type="checkbox"/> New / Upgrade <input type="checkbox"/> Relocation	<input type="checkbox"/> New / Upgrade <input type="checkbox"/> Relocation
<b>Bus Stop Pad or Turn-out (see Sec. 2.F)</b>	<input type="checkbox"/> New <input type="checkbox"/> Modify existing	<input type="checkbox"/> New <input type="checkbox"/> Modify existing	<input type="checkbox"/> New <input type="checkbox"/> Modify existing	<input type="checkbox"/> New <input type="checkbox"/> Modify existing
<b>Storm Drain (see Sec. 2.G)</b>	<input type="checkbox"/> Main <input type="checkbox"/> Lateral	<input type="checkbox"/> Main <input type="checkbox"/> Lateral	<input type="checkbox"/> Main <input type="checkbox"/> Lateral	<input type="checkbox"/> Main <input type="checkbox"/> Lateral
<b>Fiber Optics (see Sec. 2K)</b>	<input checked="" type="checkbox"/> <b>Conduit / Appurtenances</b>	<input type="checkbox"/> Conduit / Appurtenances	<input type="checkbox"/> Conduit / Appurtenances	<input type="checkbox"/> Conduit / Appurtenances
<b>Overhead Utilities</b>	<input type="checkbox"/> Underground <input type="checkbox"/> Relocate	<input type="checkbox"/> Underground <input type="checkbox"/> Relocate	<input type="checkbox"/> Underground <input type="checkbox"/> Relocate	<input type="checkbox"/> Underground <input type="checkbox"/> Relocate
<b>Removal of Improvements</b>	<b>Remove 33' from POC of Existing 8" Water &amp; Remove North valve</b>	_____	_____	_____
<b>Other Improvements</b>	_____	<b>Abandon in Place Existing 21" Sewer</b>	_____	_____

Specific notes for improvements listed in item no. 2.18, above: \_\_\_\_\_

2.19 Construct a 2" asphalt concrete (AC) grind and overlay on the following street(s): \_\_\_\_\_



- 2.20 Reconstruction of the full pavement structural section, per City of Ontario Standard Drawing number 1011, may be required based on the existing pavement condition and final street design. Minimum limits of reconstruction shall be along property frontage, from street centerline to curb/gutter.
- 2.21 Make arrangements with the Cucamonga Valley Water District (CVWD) to provide  water service  sewer service to the site. This property is within the area served by the CVWD and Applicant shall provide documentation to the City verifying that all required CVWD fees have been paid.
- 2.22 Overhead utilities shall be under-grounded, in accordance with Title 7 of the City's Municipal Code (Ordinance No. 2804 and 2892). Developer may pay in-lieu fee, approximately \_\_\_\_\_, for undergrounding of utilities in accordance with Section 7-7.302.e of the City's Municipal Code.
- 2.23 Other conditions: \_\_\_\_\_

**C. SEWER**

- 2.24 A \_\_\_\_\_ inch sewer main is available for connection by this project in \_\_\_\_\_ (Ref: Sewer Drawing Number: \_\_\_\_\_)
- 2.25 Design and construct a sewer main extension. A sewer main is not available for direct connection. The closest main is approximately \_\_\_\_\_ feet away.
- 2.26 Submit documentation that shows expected peak loading values for modeling the impact of the subject project to the existing sewer system. The project site is within a deficient public sewer system area. Applicant shall be responsible for all costs associated with the preparation of the model. Based on the results of the analysis, Applicant may be required to mitigate the project impact to the deficient public sewer system, including, but not limited to, upgrading of existing sewer main(s), construction of new sewer main(s) or diversion of sewer discharge to another sewer.
- 2.27 **Other conditions:**
  - a) **See attached OMUC Utilities Engineering Division Conditions of Approval for additional conditions.**
  - b) **Applicant/Developer shall construct 24" public sewer main per the approved Springhill Suites Hotel Public Sewer Improvement plans for PDEV15-036 from existing Southerly sewer manhole to existing North-Easterly sewer manhole. Applicant/Developer will be eligible for DIF reimbursement under a separate agreement. Contact the DIF group at: [DIF@ontarioca.gov](mailto:DIF@ontarioca.gov)**
  - c) **Applicant/Developer shall dedicate to the City of Ontario the easements shown in section 2.11 for future upsizing of sewer main segment on-site and across I-10 freeway. See attached OMUC Utilities Engineering Division Conditions of Approval for additional easement conditions**

**D. WATER**

- 2.28 **A 12 inch water main is available for connection by this project in Guasti Road (Ref: Water Drawing Number: W15027)**
- 2.29 Design and construct a water main extension. A water main is not available for direct connection. The closest main is approximately \_\_\_\_\_ feet away.
- 2.30 **Other conditions:**
  - a) **See attached OMUC Utilities Engineering Division Conditions of Approval for additional conditions.**

**E. RECYCLED WATER**

- 2.31 **A 8 inch recycled water main is available for connection by this project in Guasti Rd. (Ref: Recycled Water Drawing Number: P11025)**
- 2.32 **Design and construct an on-site recycled water system for this project. A recycled water main does exist in the vicinity of this project.**



- 2.33 Design and construct an on-site recycled water ready system for this project. A recycled water main does not currently exist in the vicinity of this project but is planned for the near future. If Applicant would like to connect to this recycled water main when it becomes available, the cost for the connection shall be borne solely by the Applicant.
  - 2.34 **Submit one (1) electronic copy, in PDF format, of the Engineering Report (ER), for the use of recycled water to OMUC's Water Quality Programs at [OMUCWQPlanCheck@ontarioca.gov](mailto:OMUCWQPlanCheck@ontarioca.gov) for review and subsequent submittal to the California State Water Board (Division of Drinking Water) for final approval.**
- Note: Review and approval process may take up to three (3) months. Contact the OMUC's Water Quality Programs at (909) 395-2678 or email [OMUCWQPlanCheck@ontarioca.gov](mailto:OMUCWQPlanCheck@ontarioca.gov) regarding this requirement.**
- 2.35 **Submit one (1) electronic copy, in PDF format, of the Landscape Plans (on-site & off-site) to OMUC's Water Quality Programs at [OMUCWQPlanCheck@ontarioca.gov](mailto:OMUCWQPlanCheck@ontarioca.gov) for review and approval.**
  - 2.36 **Other conditions:** 
    - a) **See attached OMUC Utilities Engineering Division Conditions of Approval for additional conditions.**

**F. TRAFFIC / TRANSPORTATION**

- 2.37 Submit a focused traffic impact study, prepared and signed by a Traffic/Civil Engineer registered in the State of California. The study shall address, but not be limited to, the following issues as required by the City Engineer: 
  - 1. On-site and off-site circulation
  - 2. Traffic level of service (LOS) at 'build-out' and future years
  - 3. Impact at specific intersections as selected by the City Engineer
- 2.38 New traffic signal installations shall be added to Southern California Edison (SCE) customer account number # 2-20-044-3877.
- 2.39 **Other conditions:** 
  - a) **The Applicant/Developer shall be responsible to extend the existing centerline striping from just north of Guasti Road to the proposed raised median.**
  - b) **All landscaping, block walls, and other obstructions shall be compatible with the stopping sight distance requirements per City of Ontario Standard Drawing No. 1309.**

**G. DRAINAGE / HYDROLOGY**

- 2.40 A \_\_\_\_\_ inch storm drain main is available to accept flows from this project in \_\_\_\_\_ (Ref: Storm Drain Drawing Number: \_\_\_\_\_)
- 2.41 Submit a hydrology study and drainage analysis, prepared and signed by a Civil Engineer registered in the State of California. The study shall be prepared in accordance with the San Bernardino County Hydrology Manual and City of Ontario standards and guidelines. Additional drainage facilities, including, but not limited to, improvements beyond the project frontage, may be required to be designed and constructed, by Applicant, as a result of the findings of this study.
- 2.42 An adequate drainage facility to accept additional runoff from the site does not currently exist downstream of the project. Design and construct a storm water detention facility on the project site. 100-year post-development peak flow shall be attenuated such that it does not exceed 80% of pre-development peak flows, in accordance with the approved hydrology study and improvement plans.
- 2.43 Submit a copy of a recorded private drainage easement or drainage acceptance agreement to the Engineering Department for the acceptance of any increase to volume and/or concentration of historical drainage flows onto adjacent property, prior to approval of the grading plan for the project.



- 2.44 Comply with the City of Ontario Flood Damage Prevention Ordinance (Ordinance No. 2409). The project site or a portion of the project site is within the Special Flood Hazard Area (SFHA) as indicated on the Flood Insurance Rate Map (FIRM) and is subject to flooding during a 100-year frequency storm. The site plan shall be subject to the provisions of the National Flood Insurance Program.
- 2.45 Other conditions: \_\_\_\_\_

**H. STORM WATER QUALITY / NATIONAL POLLUTANT DISCHARGE AND ELIMINATION SYSTEM (NPDES)**

- 2.46 401 Water Quality Certification/404 Permit – Submit a copy of any applicable 401 Certification or 404 Permit for the subject project to the City project engineer. Development that will affect any body of surface water (i.e. lake, creek, open drainage channel, etc.) may require a 401 Water Quality Certification from the California Regional Water Quality Control Board, Santa Ana Region (RWQCB) and a 404 Permit from the United States Army Corps of Engineers (USACE). The groups of water bodies classified in these requirements are perennial (flow year round) and ephemeral (flow during rain conditions, only) and include, but are not limited to, direct connections into San Bernardino County Flood Control District (SBCFCD) channels.  
If a 401 Certification and/or a 404 Permit are not required, a letter confirming this from Applicant's engineer shall be submitted.  
Contact information: USACE (Los Angeles District) (213) 452-3414; RWQCB (951) 782-4130.
- 2.47 **Submit a Water Quality Management Plan (WQMP). This plan shall be approved by the Engineering Department prior to approval of any grading plan. The WQMP shall be submitted, utilizing the current San Bernardino County Stormwater Program template, available at: <http://www.sbcountry.gov/dpw/land/npdes.asp>.**
- 2.48 Design and construct a Connector Pipe Trash Screen or equivalent Trash Treatment Control Device, per catch basin located within or accepting flows tributary of a Priority Land Use (PLU) area that meets the Full Capture System definition and specifications, and is on the Certified List of the State Water Resources Control Board. The device shall be adequately sized per catch basin and include a deflector screen with vector control access for abatement application, vertical support bars, and removable component to facilitate maintenance and cleaning.
- 2.49 **Other conditions:** 
  - a) **All Priority Land Use (PLU): Land use consisting of high-density residential, defined as a land use with at least ten (10) dwelling units per acre, industrial, commercial, mixed urban, and public transportation station land uses shall comply with the statewide Trash Provisions adopted by the State Water Resources Control Board (SWRCB).**
  - b) **Activities resulting in one acre or more land disturbance are required to obtain coverage under the Construction General Permit (CGP). The owner is the legally responsible person (LRP) of the site and shall have a Stormwater Pollution Prevention Plan (SWPPP) developed and submitted through the SMARTS website at <https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.xhtml>.**

**J. SPECIAL DISTRICTS**

- 2.50 File an application, together with an initial deposit (if required), to establish a Community Facilities District (CFD) pursuant to the Mello-Roos Community Facilities District Act of 1982. The application and fee shall be submitted a minimum of four (4) months prior to final subdivision map approval, and the CFD shall be established prior to final subdivision map approval or issuance of building permits, whichever occurs first. The CFD shall be established upon the subject property to provide funding for various City services. An annual special tax shall be levied upon each parcel or lot in an amount to be determined. The special tax will be collected along with annual property taxes. The City shall be the sole lead agency in the formation of any CFD. Contact Investment and Revenue Resources at (909) 395-2341 to initiate the CFD application process.
- 2.51 Other conditions: \_\_\_\_\_

**K. FIBER OPTIC**



- 2.52 A \_\_\_\_\_ fiber optic line is available for connection by this project in \_\_\_\_\_.  
(Ref. Fiber Optic Drawing Number: \_\_\_\_\_)
- 2.53 Design and construct fiber optic system to provide access to the City's conduit and fiber optic system per the City's Fiber Optic Master Plan. Building entrance conduits shall start from the closest OntarioNet hand hole constructed along the project frontage in the ROW and shall terminate in the main telecommunications room for each building. Conduit infrastructure shall interconnect with the primary and/or secondary backbone fiber optic conduit system at the nearest OntarioNet hand hole. Generally located in Guasti Road East of Haven Avenue, see attached Broadband Operations Section Conditions of Approval for additional conditions.
- 2.54 Refer to the City's Fiber Optic Master Plan for design and layout guidelines. Contact the Broadband Operations Department at (909) 395-2000, regarding this requirement.

**3. PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY, APPLICANT SHALL:**

- 3.01 Set new monuments in place of any monuments that have been damaged or destroyed as a result of construction of the subject project. Monuments shall be set in accordance with City of Ontario standards and to the satisfaction of the City Engineer.
- 3.02 Complete all requirements for recycled water usage.
  - 1) Procure from OMUC a copy of the letter of confirmation from the California State Water Board (Division of Drinking Water) that the Engineering Report (ER) has been reviewed and the subject site is approved for the use of recycled water.
  - 2) Obtain clearance from the OMUC confirming completion of recycled water improvements and passing of shutdown tests and cross connection inspection, upon availability/usage of recycled water.
  - 3) Complete Site Supervisor training of on-site personnel in the use of recycled water, in accordance with the ER, upon availability/usage of recycled water.
- 3.03 The applicant/developer shall submit all final survey documents prepared by a Licensed Surveyor registered in the State of California detailing all survey monuments that have been preserved, revised, adjusted or set along with any maps, corner records or Records of Survey needed to comply with these Conditions of Approvals and the latest edition of the California Professional Land Survey Act. These documents are to be reviewed and approved by the City Survey Office.
- 3.04 Ontario Ranch Projects: For developments located at an intersection of any two collector or arterial streets, the applicant/developer shall set a monument if one does not already exist at that intersection. Contact the City Survey office for information on reference benchmarks, acceptable methodology and required submittals.
- 3.05 Confirm payment of all Development Impact Fees (DIF) to the Building Department.
- 3.06 Submit electronic copies (PDF and Auto CAD format) of all approved improvement plans, studies and reports (i.e. hydrology, traffic, WQMP, etc.).

**4. PRIOR TO FINAL ACCEPTANCE, APPLICANT SHALL:**

- 4.01 Complete all Conditions of Approval listed under Sections 1-3 above.
- 4.02 Pay all outstanding fees pursuant to the City of Ontario Municipal Code, including but not limited to, plan check fees, inspection fees and Development Impact Fees.
- 4.03 The applicant/developer shall submit a written request for the City's final acceptance of the project addressed to the City Project Engineer. The request shall include a completed Acceptance and Bond Release Checklist, state that all Conditions of Approval have been completed and shall be signed by the applicant/developer. Upon receipt of the request, review





**of the request shall be a minimum of 10 business days. Conditions of Approval that are deemed incomplete by the City will cause delays in the acceptance process.**

- 4.04** Submit record drawings (PDF) for all public improvements identified within Section 2 of these Conditions of Approval.



**EXHIBIT 'A'**

**ENGINEERING DEPARTMENT  
First Plan Check Submittal Checklist**

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**Project Number: PDEV23-036**

**All plan check submittals are to be done digitally through the City Of Ontario Citizen Portal Access. The following items are to be included with the first plan check submittal:**

1.  **A copy of this check list**
2.  **Payment of fee for Plan Checking**
3.  **Engineering Cost Estimate (on City form) with engineer's wet signature and stamp.**
4.  **Project Conditions of Approval**
5.  Potable and Recycled Water demand calculations (include water demand calculations showing low, average and peak water demand in GPM for the proposed development and proposed water meter size).
6.  Public Street improvement plan with street cross-sections
7.  Public Water improvement plan (include water demand calculations showing low, average and peak water demand in GPM for the proposed development and proposed water meter size)
8.  **Recycled Water improvement plan (include recycled water demand calculations showing low, average and peak water demand in GPM for the proposed development and proposed water meter size and an exhibit showing the limits of areas being irrigated by each recycled water meter)**
9.  **Public Sewer improvement plan**
10.  Public Storm Drain improvement plan
11.  Public Street Light improvement plan
12.  Signing and Striping improvement plan
13.  **Fiber Optic plan (include Auto CAD electronic submittal)**
14.  HOA Landscape improvement plans. Show corner sight line distance per engineering standard drawing 1309.
15.  CFD Landscape improvement plans. Show corner sight line distance per engineering standard drawing 1309.
16.  **Dry Utility plans within public right-of-way (at a minimum the plans must show existing and ultimate right-of-way, curb and gutter, proposed utility location including centerline dimensions, wall to wall clearances between proposed utility and adjacent public line, street work repaired per Standard Drawing No. 1306. Include Auto CAD electronic submittal)**
17.  Traffic Signal improvement plan and One (1) copy of Traffic Signal Specifications with modified Special Provisions. Please contact the Traffic Division at (909) 395-2154 to obtain Traffic Signal Specifications.
18.  **Water Quality Management Plan (WQMP), including one (1) copy of the approved Preliminary WQMP (PWQMP).**
19.  **Hydrology/Drainage study**
20.  **Soils/Geology report**



- 21.  Payment for Final Map/Parcel Map processing fee
- 22.  Final Map/Parcel Map
- 23.  Approved Tentative Map
- 24.  **Preliminary Title Report (current within 30 days)**
- 25.  **Traverse Closure Calculations**
- 26.  **Set of supporting documents and maps (legible copies): referenced improvement plans (full size), referenced record final maps/parcel maps (full size, 18"x26"), Assessor's Parcel map (full size, 11"x17"), recorded documents such as deeds, lot line adjustments, easements, etc.**
- 27.  **Engineering Report and an electronic file (include PDF format electronic submittal) for recycled water use.**
- 28.  **Other: Precise Grading Plan including Utility Plan**



# CITY OF ONTARIO MEMORANDUM



**DATE:** April 3, 2024  
**TO:** Brenda Fregoso, Engineering Department  
**CC:** Luis Batres, Planning Department  
**FROM:** Eric Woosley, Utilities Engineering (QC: DM)  
**SUBJECT:** DPR #3 - Utilities Engineering Conditions of Approval (#10064)  
**PROJECT NO.:** PDEV23-036

## BRIEF DESCRIPTION

*A Development Plan to construct three (3) commercial buildings totaling 60,889 square feet on 6.99 acres of land located at the northeast corner of Guasti Road and Haven Avenue, within the Office land use district of the Ontario Gateway Specific Plan (APN: 0210-212-60).*

## UTILITIES ENGINEERING CONDITIONS OF APPROVAL

**CONDITIONS OF APPROVAL:** *The Ontario Municipal Utilities Company (OMUC) recommends this application for approval subject to the conditions outlined below and compliance with the City's Design Development Guidelines, Specifications Design Criteria, and City Standards.*

1. Standard Conditions of Approval: Project shall comply with the requirements as set forth in the Amendment to the Standard Conditions of Approval for New Development Projects adopted by the City Council (Resolution No. 2017-027) on April 18, 2017; as well as project-specific conditions/requirements as outlined below.

***Prior to Issuance of Any Permits (Grading, Building, Demolition and Encroachment), unless other timeline milestones are specified by individual conditions below, the Applicant Shall:***

***General Conditions (Section 2.A, Other conditions): The Applicant shall comply with the following:***

2. Final Utilities Systems Map (USM): Submit a Final Utilities Systems Map (USM) as part of the precise grading plan submittal that meets all the City's USM requirements. These requirements include to show and label all existing and proposed utilities (including all appurtenances such as backflow devices, DCDA's, etc.), sizes, points of connection, and any easements. The final utility design shall comply with all Division of Drinking Water (CCR §64572) Separation Requirements. See *Utility Systems Map (USM) Requirements* document for details.
  - a. The proposed utilities, utility alignments, and Public Rights-of-Way (ROW)/Public Utility Easements (PUE) shown on the Conceptual Utilities Systems Map (CUSM) and other Entitlement documents are not considered final and shall be revised during Final Design to meet all City Design Guidelines, Standards, City Requirements, and all the Conditions of Approval contained in this document.
3. Note the following definitions and concepts for Public Utility Improvements and Private Utility Improvements: Public Improvements shall be designed per City Public Design Guidelines and City Standards and constructed through a City Encroachment Permit; and Private Onsite Improvements shall be designed per Building Code and Plumbing Code and constructed through a City Building Permit.
  - a. Public Utility Improvements include the following: water main pipelines and sewer main pipelines; sewer laterals connecting to a Public Sewer Main up to the Cleanout (or Manhole) at PL/ROW; water services and connected appurtenances (Meters/Meter Boxes, Fire Hydrants, Airvacs, Blowoffs, etc.) connecting to a Public Water Main per City Standards; and Fire Services connecting to a Public Water Main from the Main up to the DCDA. Public Water Improvements and Public Sewer Improvements are required to be designed and constructed through Public Improvement Plans with Plan View and Profile View per City Standards, Guidelines, and Requirements.
  - b. Private Utility Improvements include the following: onsite water plumbing lines after a Public Meter, or after the Fire DCDA and including the DCDA; Backflow Devices and other Cross-Connection Prevention; onsite sewer upstream of the Public Sewer Lateral, including the Cleanout (or Manhole) at PL/ROW/PUE Edge; Monitoring Manholes and other Wastewater Pretreatment Facilities. Private Onsite Utility Improvements are required to be designed and constructed per Building and Plumbing Plans with: the Backflows, DCDA's,

Cleanout (or Manhole) at PL/ROW/PUE Edge, and Monitoring Manholes being designed and constructed through a Precise Grading Plan; and, the other Pretreatment Devices (Grease Interceptor, Sand, Oil Interceptors, etc.) and the connections to the buildings and structures through a building Plumbing Plan.

4. Public Utilities and Public Right-of-Way including Public Utility Easements (PUE): All City of Ontario Public Utilities shall be installed within a Public Right-of-Way (ROW), or within a Public Utility Easements (PUE), or within a combination of ROW and PUE. In this case, Public Utilities is referring to the mains and connected appurtenances of the following City of Ontario/OMUC Utilities: Public Potable Water; Public Recycled Water; and Public Sanitary Sewer. Public Utilities shall be subject to the Minimum ROW/PUE Area Requirements and PUE Restrictions:
  - a. Minimum ROW Area Requirements: Public Utilities shall be installed within in existing ROW/PUE in alignments/locations that meet the following minimum ROW/PUE areas surrounding the Public Utilities, and/or additional ROW/PUE shall be dedicated/granted to the City to provide the following minimum ROW/PUE areas surrounding the Public Utilities:
    - i. For each main, the ROW/PUE Area shall be a minimum of 20 feet wide, centered on the utility main with a minimum of 10 feet of ROW/PUE on each side of the main and this minimum area shall extend a minimum for 10 feet past the end of a main;
    - ii. For each Service/Lateral, the ROW/PUE Area shall be a minimum of 10 feet wide, centered on the service/lateral with a minimum of 5 feet of ROW on each side of each service/lateral;
    - iii. For each water meter box, the ROW/PUE Area shall be a minimum of 5 feet behind and 5 feet on each side of a water meter box;
    - iv. For each water appurtenances (fire hydrants, blowoffs, airvacs, etc.), the ROW/PUE Area shall be a minimum of 5 feet on each side surrounding the water appurtenances (fire hydrants, blowoffs, airvacs, etc.);
    - v. The ROW/PUE minimum areas for separate Public Utilities may overlap, provide that all minimum separations and PUE Restrictions are met.
  - b. PUE Restrictions: The Minimum PUE Area required surrounding Public Utilities shall be subject to the following restrictions:
    - i. The Minimum PUE Area required surrounding Public Utilities shall not contain:
      - A. Any storm water quality improvements (infiltration, detention, retention, bioswale, etc.);
      - B. Landscaping with thick or intrusive root structures,
      - C. Any trees;
      - D. Any private utilities, plumbing lines, private fire system, or irrigation lines; or,
      - E. Any permanent structures or overhangs of permanent structures.
    - ii. The PUE surface shall be designed to allow vehicle access over and along the full length of the utility main by any City maintenance vehicle.
    - iii. Minimum Separations: Within a PUE, all Department of Drinking Water (DDW) Water Main Separations per California Code of Regulations (CCR) §64572 shall be met for all Public Potable Water Mains and Services between: all Public City Utilities; Non-City Utilities; and Private Utilities. Additionally, the following Minimum Separations shall be met:
      - A. At minimum there shall be a 4 feet horizontal separation between each utility as measured between the outside walls of the utility pipelines, or in the case of a Joint Utility Trench, between the outside edge of the Joint Utility Trench and the outside wall of the Utility Pipeline.
      - B. Public Utility mains shall not be located behind curb or under curb & gutter and shall be located at minimum of 5 feet from curbface.
5. Easement Dedication: Dedicate to the City of Ontario the following easements:
  - a. An easement as required for the new 24-inch sewer main to be located on-center with 10-ft of easement on each side, measured from the centerline of the sewer main to the edge of the easement. Note: there is an existing easement for the existing 21-inch sewer main traversing the property, and additional PUE will be required, as needed to meet said requirements.
  - b. An easement located at the northeast corner of the parcel measured 60-ft north to south by 120-ft east to west for construction purposes of the new sewer main north of this project. In addition, an access easement shall be required for ingress and egress of the property and access to the 60'x120' easement. The path of the travel shall be a minimum of 20-ft wide, with turning radii of 25-ft inner and 45-ft outer provided for construction and maintenance vehicle access on-site.
  - c. Show, label, and provide dimensions of all public utility easements on all related plan sheet submittals.
6. Unused Service Abandonment: All adjacent water services (along with connected appurtenances) and sewer laterals and main stubs along the frontages of the project site not used to provide service to this Development Project shall be abandoned back to the main in accordance with City Standards and Practices.

**Sewer Conditions (Section 2.C): The Applicant shall comply with the following:**

7. Public Sewer Improvements: Design and construct the following required public sewer mains in accordance with City of Ontario Standards and Design Guidelines and Specifications:
  - a. A 24-inch sewer main in the PUE traversing the property and paralleling the existing 21-inch sewer main (S11579-S11580). The new 24-inch sewer main shall connect to the existing upstream manhole (J21MH100), extend south to a new manhole, then extend west paralleling the existing 21-inch sewer main (S11580) across the 21-inch sewer main (S11579) to a new manhole, then extend southwest paralleling the existing 21-inch sewer main (S11579); and connect to the existing downstream manhole (J21MH146).
8. Existing Public Sewer Improvements: The existing 21-inch sewer main (S11579-S11580) located within the PUE (Instrument No. 2020-0525582) shall be slurry filled and abandoned in place from the existing upstream manhole (J21MH100) to the existing downstream manhole (J21MH146). Said manholes shall remain for connections for the new 24-inch sewer main. All existing manholes not to remain along the abandoned sewer main shall also be abandoned by removing the frame, cover, and upper grade rings, and backfilling in accordance with City of Ontario Standards and Design Guidelines and Specifications. The existing sewer mains shall remain active until the required new sewer mains are constructed and operational.
9. Existing Sewer Laterals: Per City of Ontario Standard Drawing No. 2003:
  - a. Connect to the existing 8-inch sewer lateral in the Private Access Road located south of this project. The point of connection for said lateral is located along the southerly property limit.
  - b. Closed Circuit Television (CCTV) Sewer Lateral Inspection: Prior to being placed in service, the existing 8-inch sewer lateral being used by this project shall be CCTV Inspected between the upstream manhole at the ROW and the downstream manhole at the main. If by inspection the sewer lateral is deemed inadequate by OMUC Operations Staff, then the existing sewer lateral shall be removed and replaced in accordance with City of Ontario Standard Drawing No. 2003.
10. Private Onsite Sewer System and Plumbing: The Onsite Sewer System shall be privately maintained by the property owner and shall be designed as follows:
  - a. The Onsite sewer system and building plumbing shall be designed in such a way that the sanitary domestic wastewater flows leave the building separately from non-sanitary wastewater flows (industrial, process, or kitchen, etc.) and the line for non-sanitary wastewater flows can be upgraded in the future to have pretreatment equipment and devices on it, as required by a Wastewater Discharge Permit.
11. Three Chamber Sand and Oil Interceptor: Per City of Ontario Standard Drawing No. 2202:
  - a. Install a sand and oil interceptor with a sample box for the proposed carwash upstream of the connection to the private on-site sewer system in accordance with the Wastewater Discharge Permit requirements.
12. Monitoring Manhole: Per City of Ontario Standard Drawing Nos. 2201 and 2203:
  - a. Install a monitoring manhole on-site as part of the privately owned and maintained sewer system, upstream of the sewer lateral.
13. Wastewater Discharge Permit: The Occupant/Applicant shall apply for a Wastewater Discharge Permit for their Establishment, and shall comply will all the requirements of the Wastewater Discharge Permit found at: (<http://www.ontarioca.gov/municipal-utilities-company/utilities/industrial-wastewater-discharge-permit>). Requirements of the Wastewater Discharge Permit may include, but not limited to: Installation of wastewater pretreatment equipment, such as clarifiers. For wastewater permit application questions, please contact: [omucenvironmental@ontarioca.gov](mailto:omucenvironmental@ontarioca.gov)

**Potable Water Conditions (Section 2.D): The Applicant shall comply with the following:**

14. Public Water Improvements: Design and construct the following required public water mains in accordance with City of Ontario Standards and Design Guidelines and Specifications:
  - a. There is an existing potable water main (W15027, W105028) available for connection by this project in Guasti Road.
15. Fire Service with Fire System Double Check Detector Assembly (DCDA): Per City of Ontario Standard Drawing No. 4208:
  - a. There is an existing 8-inch fire service located in the Private Access Road connected to the existing 12-inch water main (W15027) in Guasti Road. The fire service shall be equipped with a DCDA located at the northeast corner of Guasti Road and the Private Access Road. The DCDA can be located along either

frontage of Guasti Road or the Private Access Road, and no further than 60-ft from Guasti Road centerline. Any segment of existing pipe not required shall be removed. The onsite fire system shall be separate from the onsite domestic water plumbing system and the onsite landscape irrigation system.

16. Water Service with Meter and Backflow Prevention Assembly Reduced Pressure Device:

- a. There is an existing water service and meter box equipped with a backflow prevention device connected to the existing 12-inch potable water main (W15028) in Guasti Road. If the backflow device is deemed inadequate and does not pass OMUC Water Quality Staff testing, it shall be removed and replaced by City of Ontario Standards.

17. Existing Water Services:

- a. Abandon all existing unused water service connections to the water main.

***Recycled Water Conditions (Section 2.E): The Applicant shall comply with the following:***

18. Public Recycled Water Improvements: Design and construct the following required public recycled water mains in accordance with City of Ontario Standards and Design Guidelines and Specifications:

- a. There is an existing recycled water main (P11025) available for connection by this project in Guasti Road.

19. City Ordinance 2689: This development shall comply with City Ordinance 2689 and make use of recycled water for all approved uses, including but not limited to landscaping irrigation.

20. Recycled Water Irrigation Service with Meter: Per City of Ontario Standards:

- a. There is an existing 2-inch irrigation water service and meter box connected to the existing 8-inch 1299 PZ recycled water main (P11025) in Guasti Road.

21. Engineering Report: Submit one (1) electronic copy, in PDF format, of the Engineering Report (ER), for the use of recycled water to OMUC's Water Quality Programs at [OMUCWQPlanCheck@ontarioca.gov](mailto:OMUCWQPlanCheck@ontarioca.gov) for review and subsequent submittal to the California State Water Board (Division of Drinking Water) for final approval. Note: Review and approval process may take up to three (3) months. Contact the OMUC's Water Quality Programs at (909) 395-2678 or email [OMUCWQPlanCheck@ontarioca.gov](mailto:OMUCWQPlanCheck@ontarioca.gov) regarding this requirement.

22. Submit one (1) electronic copy, in PDF format, of the Landscape Plans (on-site & off-site) to OMUC's Water Quality Programs at [OMUCWQPlanCheck@ontarioca.gov](mailto:OMUCWQPlanCheck@ontarioca.gov) for review and approval.

***Recycled Water Conditions (Section 3): The Applicant shall comply with the following:***

23. Recycled Water Requirements: Complete all requirements for recycled water usage as follows:

- a. Procure from OMUC a copy of the letter of confirmation from the California State Water Board (Division of Drinking Water) that the Engineering Report (ER) has been reviewed and the subject site is approved for the use of recycled water.
- b. Obtain clearance from the OMUC confirming completion of recycled water improvements and passing of shutdown tests and cross connection inspection, upon availability/usage of recycled water.
- c. Complete Site Supervisor training of on-site personnel in the use of recycled water, in accordance with the ER, upon availability/usage of recycled water.



## UTILITIES SYSTEMS MAP (USM) REQUIREMENTS:

*The USM shall meet, at a minimum, the following requirements:*

1. **USM Content and Format:** The Utilities Systems Maps shall show all existing and proposed Utilities (Potable Water, Recycled Water, Sewer, Storm Drain, and other utilities) including each of the City's public utilities' points of connection to the existing systems. This plan should include:
  - a. **Format:** The Utilities Systems plan at a minimum 1:100 scale (or large engineering scale as appropriate to show needed details) that clearly shows each existing and proposed utility and its relative location. This includes property lines, right-of-way, public utility easements, but should not include underlying existing topography, just proposed general grades. Use appropriate colors for each Utility type: blue for Potable Water; purple for Recycled Water; green for Sanitary Sewer; yellow-brown for storm Drain.
  - b. **Services and Laterals:** All Proposed Utility Service laterals for each parcel (potable water domestic, recycled water irrigation, potable/recycled water for process water, and sewer) and any associated appurtenances.
    - i. **Meter and Backflow Device Locations:** Show all proposed meters and required backflow devices located per City Standards (Water Services and Meters; Backflow Devices). Meters should be located in public rights-of-way or PUEs; either at the R/W (or PUE) line for curb adjacent sidewalks or at back of curb for all other cases. All water connections that serve more than one residential unit are required to have a backflow device installed behind the meter.
  - c. **Cross Sections (if applicable, for project construction new public mains):** Scaled cross sections showing the utility layout on the Utility Systems Map (Utility Plan) for each public street, private street and Public Utility Easement (PUE). The cross sections shall show the location and size of each utility and annotate the property/ROW lines, the type of finished surface material, the distance of each utility from centerline, the depth from finished surface to top of pipe, and the distance between utilities (outside wall to outside wall).
  - d. **Points of Connections:** The locations of the points of connections to the existing utility systems, which can include breaks between the map area and the connection points with descriptions of the pipe size, type, use (pressure zone for water), and distance. An inset map can be used in addition to this to help provide clarity.
  - e. **Water Demand Table (if applicable, for projects within Ontario Ranch/NMC):** Add a Water Demand Table to the Utility Systems Map (Utility Plan) that calculates the project's domestic water use based on land use category (residential, commercial, and OS-R/Parks) and the number of units. The table shall state demand in terms of Average Daily Demand (ADD from Table 4-8 of the Water Master Plan) and Water Demand Equivalents (WDE / Net MDD from Exhibit C-2R of the NMC Construction Agreement; WDEs only if NMC). It should also identify the quantity of units in each category and the specific lots that are included in that category. Please Note that master planned lines are designed using gross acreage densities for all projected water use from residential categories.
    - i. See Attached Sheet for WDT Example.
  - f. **Phasing Plan (if applicable):** As separate exhibits, provide a proposed phasing plan showing the phasing of the infrastructure and the number and type (TOP land use category) of units in each phase.
    - i. All phases must have: a connection to public sewer; a two separate looped connections to the potable water system, where no one closing of a main segment results in any part of any of any phase being without potable water.





- ii. For public water mains in all phases, dead-end water lines (temporary or permanent) are limited to serving 28 dwelling units or a maximum of 600 linear feet, whichever comes first. Otherwise a looped water system with at least two (2) points of connection to the primary public system is required.
  
- g. Private Onsite Systems versus Public Systems within PUEs for Residential Tract Map Project*(if applicable)*: the following requirements apply when to delineating between Private and Public Systems:
  - i. Current Standard Drawing No. 1304 remains applicable and minimum health separation must be met.
  - ii. Public water mains will be accepted in longer alleys when it serves more than 6 meters.
  - iii. Public sewer mains will be accepted in alleys where the water is public.
  - iv. Public dead-end water mains will require a blow-off at the end and the alley should be designed to accommodate runoff from required water main flushing operations.
  - v. Public sewer mains in alleys will require a manhole at both ends of the main.
  - vi. Public meters serving more than one single family residential unit are considered as multifamily service with master meter and require: a backflow device after the meter, private HOA sub-metering for each unit, and a separate Fire Service with DCDA to provide private onsite fire service.



# CITY OF ONTARIO

## MEMORANDUM

### DEVELOPMENT PLAN REVIEW CONDITIONS OF APPROVAL Broadband Operations Section

**DATE:** 3-22-24

**PROJECT:** PDEV23-036

**LOCATION:** Guasti/Haven

**PROJECT ENGINEER:**

**BROADBAND PLAN CHECKER:** Cameron Chadwick - CChadwick@ontarioca.gov

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**The following Conditions of Approval requirements must be incorporated prior to the Development Advisory Board and/or Zoning Administrator Hearing.**

1. Project shall be designed and constructed to provide access to the City's conduit and fiber optic system per the City's Fiber Optic Master Plan. Building entrance conduits shall start from the closest OntarioNet hand hole in the Right-of-Way (ROW) and shall terminate in the main telecommunications room for each building. Conduit infrastructure shall interconnect with the primary and/or secondary backbone fiber optic conduit system at the nearest OntarioNet hand hole.
2. Contractor is responsible for locating and connecting conduit to existing OntarioNet hand holes on adjacent properties within a reasonable distance. There should be no "Gaps" in conduit between the contractor's development and the adjacent property. OntarioNet hand holes are typically located in the ROW at the extreme edge of a property.
3. Where a joint telecom or street light street crossing is required, include (2) 2" HDPE SDR-11 conduits or (1) 4" schedule 80 conduit sleeve. Terminate the street crossing conduit(s) in a new HH-3/22 OntarioNet hand hole in the right of way
4. The City requires a public utility easement for fiber optics on all private aisles/alley ways.
5. Hand holes - Design and install OntarioNet fiber optic hand hole HH-FP (10x00x10), HH-1 (13x24x18), HH-2 (17x30x24), HH-2A (24x36x30), HH-3 (30x48x36) and/or HH-4 (36x60x36) as needed. Respectively, Newbasis Part # PLA100010T-00002, PCA132418-00006, PCA-173024-90116, PCA-243630-90064, PCA-304836-90244 and PCA-366036-90146 or equivalent as specified per City Standard 1316. Conduits sweeping into hand holes shall enter in flush with the cut-out mouse holes aligned parallel to the bottom of the box and come in perpendicular to the wall of the box. Conduits shall not enter at any angle other than parallel. Provide 5-foot minimum clearance from existing/proposed utilities. All hand holes will have ¼-inch galvanized wire between the hand holes and the gravel it is placed on.
6. ROW Conduit – Design and install fiber optic conduit at a minimum depth of 36-inch. Trenching shall be per City Standard 1306. Install (1) 2-inch HDPE SDR-11 (Smoothwall) roll pipe (Orange) duct and (1) 2-inch HDPE SDR-11 (Smoothwall) roll pipe (Orange with Black Stripe) duct. Conduit(s) between ROW hand holes and hand holes on private property shall be 2-inch HDPE SDR-11 (Smoothwall) roll pipe (Orange) duct.
7. Building Entrance (Single Family) – Design and install 0.75-inch HDPE SDR-11 (Smoothwall) roll pipe (Orange) duct from hand holes on property or hand holes in the ROW. Consult City's Fiber Team for design assistance.
8. Building Entrance (Multi-family and Commercial) - From the nearest handhole to the building entrance, design and install fiber optic conduit at a minimum depth of 36-inches. Trenching shall be per City Standard for Commercial Buildings. (1) 2-inch HDPE SDR-11 (Smoothwall) roll pipe (Orange) duct. Install

- locate/tracer wires minimum 12AWG within conduit bank and fiber warning tape 18-inch above the uppermost duct
9. Multi-family and commercial properties shall terminate conduit in an electrical room adjacent to the wall no less than five inches above the finished floor. A 20" width X length 36" space shall be reserved on the plywood wall for OntarioNet equipment. This space shall be labeled "OntarioNet Only". Ontario Conduit shall be labeled "OntarioNet"
  10. A minimum 13/16 millimeter microduct joint use telecommunications conduit with pull-rope from the single-family, multi-family or commercial building communal telecom/electrical room/closet to each multi-family or commercial building unit shall be installed. See Structured Wiring Checklist on City's website for additional details.
  11. Warning Tape - Contractor shall supply and install an approved non-detectable warning tape 18-inch above the uppermost conduit when backfilling trenches, pits or excavations greater than 10' in length. Warning Tape shall be non-detectable, Orange in color, 4-inch minimum width, 4 mil, 500% minimum elongation, with bold printed black letters "CAUTION - BURIED FIBER OPTIC CABLE BELOW" printed in bold black lettering no less than 2-inch high.
  12. All hand holes, conduits, conduit banks, materials and installations are per the City's Fiber Optic Master Plan and City Fiber Optic Cable and Duct Standards. All hand holes, conduits and ducts shall be placed in the public right of way.
  13. All unused conduits/ducts/microducts shall be protected with duct plugs that provide a positive seal. Ducts that are occupied shall be protected with industry accepted duct seal compound.
  14. Locate/Tracer Wire - Conduit bank requires (1) 12AWG high strength (minimum break load 452#) copper-clad steel with 30mil HDPE orange insulation for locate/tracer wire. Contact City's Fiber Team for tracer wire specifications and see note 8.
  15. Multi-family dwellings are considered commercial property.
  16. Refer to the In-tract Fiber Network Design guideline on the City's website for additional in-tract conduit guidelines.

**CITY OF ONTARIO**  
**LANDSCAPE PLANNING DIVISION**  
 303 East "B" Street, Ontario, CA 91764

**CONDITIONS OF APPROVAL**

Sign Off



03/21/2021

Jamie Richardson, Sr. Landscape Architect

Date

Reviewer's Name: <b>Jamie Richardson, Sr. Landscape Architect</b>	Phone: <b>(909) 395-2615</b>
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D.A.B. File No.: PDEV23-036	Case Planner: Luis Batres
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Project Name and Location:  
 Citrus Motors Ford & Kia  
 South West Corner of Haven Ave and Guasti Road

Applicant/Representative:  
 LD King Inc. Jesse Kent  
 975 N Haven Ave, Suite 200  
 Ontario, CA 91762

- |                                     |  |
|-------------------------------------|--|
| <input checked="" type="checkbox"/> | <b>Preliminary Plans (dated 03/18/2024) meet the Standard Conditions for New Development and have been approved considering that the following conditions below be met upon submittal of the landscape construction documents.</b> |
| <input type="checkbox"/>            | <b>Preliminary Plans have not been approved. Corrections noted below are required before Preliminary Landscape Plan approval.</b>  |

**A RESPONSE SHEET IS REQUIRED WITH RESUBMITTAL OR PLANS WILL BE RETURNED AS INCOMPLETE.**  
**DIGITAL SUBMITTALS MUST BE 10MB OR LESS.**

Civil/ Site Plans

1. Before permit issuance, stormwater infiltration devices located in landscape areas shall be reviewed and plans approved by the Landscape Planning Division. Any stormwater devices in parkway areas shall not displace street trees. Coordinate to submit a landscape plan showing chambers and required landscape areas.
2. Show and dimension transformers set back 5' from paving all sides. Coordinate with landscape plans.
3. Show and dimension backflow devices set back 4' from paving on all sides. Locate on level grade.
4. Provide a dedicated recycled water meter for irrigation.
5. Locate utilities including light standards, fire hydrants, water, drain, and sewer lines to not conflict with required tree locations—coordinate civil plans with landscape plans.
6. Provide site plan landscape calculations to show 13% of the site with living landscaping not including the right of way or paving.
7. Dimension all planters to have a minimum 5' wide inside dimension.
8. Dimension, show and call out for step-outs at parking spaces adjacent to planters; a 12" wide monolithic concrete curb, DG paving or pavers with edging.
9. Show parking lot island tree planters 1 for every ten parking spaces and at each row end. Provide island planters to meet code requirements. Other dealerships have provided larger end island planters for broader canopy trees and enhanced landscapes to there Auto Inverntory areas. This avoids planters located throughout where vehicle stock is going to be parked. Island planters are required in customer parking to meet parking island requirements.

Landscape Plans

10. Show any trees for reference, include genus and species; avoid conflicts on adjacent parcel.

11. Add tree protection notes on construction and demo plans to protect trees to remain. Replacement and mitigation for removed trees shall equal the trunk diameter of heritage trees removed per the Development Code Tree Preservation Policy and Protection Measures, section 6.05.020.
12. A complete conceptual landscape plan was not provided with the initial submittal; additional comments may be included once a landscape plan is submitted. Provide a conceptual landscape and irrigation plan to meet the Landscape Development Guidelines: See <http://www.ontarioca.gov/landscape-planning/standards>.
13. Show backflow devices with 36" high strappy leaf shrub screening and trash enclosures and transformers, a 4'-5' high evergreen hedge screening. Do not encircle utility; show as masses and duplicate masses in other locations at regular intervals.
14. Show any easements and identify.
15. Locate trees for shade on buildings, parking lots, seating areas, and paving, screen blank walls and adjacent properties where missing, accent trees to entries and driveways, and provide visibility to signs, windows, and doors. Locate trees 50% of canopy width from walls, buildings, and existing trees.
16. Provide a planting list of proposed water-efficient plants. Proposed water use must meet the water budget. Limit ornamental grasses such as Carex to accent areas (difficult to maintain in masses). Replace Phormium (diseasae) with another evergreen shrub, consider Pittosporum, Ligustrum, Xylozma.
17. Show 8' diameter of mulch only at new trees, 12' min. at existing trees. Detail irrigation dripline outside of mulched root zone.
18. Call out the type of proposed irrigation system (dripline and pop-up stream spray tree bubblers with PCS). Include preliminary MAWA calcs. Proposed water use must meet the water budget.
19. Show landscape hydrozones on plan or legend with plants per WUCOLS. Moderate water plants may be used for part shade north and east-facing locations, low water plants everywhere else.
20. Overhead spray systems shall be designed for plant material less than the height of the spray head.
21. Designer or developer to provide agronomical soil testing and include a report on landscape construction plans.
22. Landscape plans shall be designed and signed by a licensed landscape architect.
23. Show minimum on-site tree sizes per the Landscape Development standards; see the Landscape Planning website. 5% 48" box, 10% 36 box, 30% 24" box, 55% 15 gallon. Palm trees are not counted toward tree counts and tree sizes. Palm trees shall be minimum 17' Brown Trunk Height.
24. Show 25% of trees as California native (Platanus racemosa, Quercus agrifolia, Quercus wislizenii, Quercus douglasii, Cercis occidentalis, etc.) in appropriate locations.
25. Landscape construction plans shall meet the requirements of the Landscape Development Guidelines.
26. After a project's entitlement approval, the applicant shall pay all applicable fees for landscape plan check and inspections at a rate established by resolution of the City Council.

**Landscape and Irrigation Construction Document Comments**

1. *Construction documents were submitted as part of the Development Plan. We have provided plan check comments to assist your at-risk submittals.*
2. Callout all utilities on landscape plans.
3. Show enhanced paving at all entries.
4. Note for compaction to not be greater than 85% at landscape areas, all finished grades at 1 ½" below finished surfaces; landscaped slopes to be maximum 3:1 slopes
5. Show point of connection and size of water meter (note potable or recycled). Include static pressure and maximum gpm. Provide a separate irrigation meter.

6. Show and callout size and location of reduced pressure backflow devices, master valve, flow sensors, gate valves, pressure regulating valves (required on recycled water systems), automatic remote control valves, quick couplers, automatic controllers, and rain sensors. Valve boxes shall be no more than 3" above FG in shrub areas and 1" in turf.
7. Show backflow devices on level grade, dimension 4' from paving. Backflow prevention devices and pipes shall be painted green and located in a locking enclosure.
8. Provide all irrigation components (dripline) in the legend.
9. Note that drip valves to be installed in jumbo boxes.
10. Add check valves or anti-drain valves to prevent low head drainage.
11. Show/Note on Plan and Detail: Stream spray bubblers shall include an appropriate screen and installed on each side of the rootball for consistent wetting, 3' from the tree trunk. Dripline shall be outside of trunk flare 8' square or diameter. Tree bubblers shall not overspray onto paving or spray tree stakes.
12. Irrigation lateral lines shall be Sch 40 PVC and a minimum ¾" size. All pressure mainline shall be Sch 40 PVC for sizes up to 1½" diameter. Class 315 PVC for lines 2" and larger.
13. Irrigation mainlines under landscape shall have a minimum 18" cover, laterals 12" cover. Irrigation mainlines under paving shall have min 24" cover; laterals 18" cover.
14. Irrigation pipes under streets shall be installed 36" deep, sleeved, and identified with marking tape installed 12" from the surface, identifying the type of line with APWA standard "Caution waterline buried below" in blue or "Caution recycled waterline buried below" in purple. Sleeves shall be Schedule 40 PVC, two times the diameter of the pipe being sleeved. Provide details.
15. Show pressure loss calculations.
16. Note that the controller and weather sensor shall be connected and operating before final inspection.
17. Before city landscape inspection, a certified irrigation auditor shall provide an irrigation audit report. The report shall include:
  - a. Controller program irrigation schedule to include: start times, programs, and run times. Schedule shall consider application rate, soil type, plant factors, slope, and exposure
  - b. Controller programming to on-site weather sensor or CIMIS station
  - c. Controller programming to flow sensor and master valve, or learned run times.
  - d. Verification of efficient water use with no runoff or overspray by testing min 15% of the site.
  - e. Verification of the reduced size irrigation plan, laminated with layout chart indicating valve number and color-coded area of system limits and irrigation run schedule.
18. Label each valve system with valve number, valve size, GPM, sq ft., and plant type.
19. Contractor to provide a neatly drawn laminated irrigation layout chart for Automatic Controllers. Pedestals shall be located within planter areas with an 18" pad of DG or mulch at front for access. The central controller shall include a manufacturer support page.
20. Provide irrigation schedule.
21. Show water use schedule noting irrigation cycles and run times per station or plant type (turf, shrub, trees, sun areas, shade areas, etc.) monthly or seasonally. Add multiple start times to prevent runoff. Watering shall occur between 6 pm & 6 am.
22. Additional trees are required throughout the project, along perimeters, at visitor parking, etc.; see redlines for potential locations. Show on the plans any proposed signage and view coordinates from major streets and freeways where trees may interfere.
23. Provide a minimum mix of tree sizes and species; refer to Landscape Development Standards for additional information. Palms are not considered in the minimum tree mix.
24. Limit the use of Aloes and Agaves to protected accent planters (sensitive to frost); Carex can be difficult and costly to maintain; consider low water use and low maintenance ground cover such as Honeysuckle or is using as an ornamental grass. Consider Festuca mairei. Replace Phormium (short-lived); consider Dianella.
25. Remove any boiler plate amendment recommendations. Include the soil report on the plan.

26. Add organic shredded mulch to planter areas at a depth of 3" for shrubs and 1" for groundcover. Keep mulch 3" clear of plant stem and 6" of trees; not wood chips.
27. Root barriers are not required but, if proposed, shall be max 12" deep for trees planted within 5' of paving and be a linear installation.
28. Tree planting: Trees shall be double staked. Stakes shall be minimum of 7'-8' above grade, 3'-4' below, and tied to the canopy for wind protection. Box trees 36" or larger shall be rootball anchored. See earth anchors duckbill rootball system keep straps clear of trunk.
29. Tree ties shall be flexible (minimum four required) and secure to the pole with galvanized nail. Rootball shall be 2" above finish grade. Note: Stakes shall not pierce rootball and shall extend into undisturbed soil.
30. Remove detail fro drainage and aeration; if clay soils are identified in the soils report use the City detail for Slow Draining Soils. Nothing shall encircle the rootball or the planting pit.
31. Trees shall be planted: 25' from beginning of curb returns at street intersections; 15' from light standards; 10' from power poles and buildings; 7' from water and sewer lines, 5' from sidewalks, driveways, and fire hydrants.
32. Street trees shall be spaced 30' on center, with a mulch only area 8' wide.
33. Note on plans for a pre-emergent to be applied before the mulch layer is installed to prevent weeds. Weeds shall be removed before 2" high or weed seeds develop.
34. Transformers shall be located in landscape planter areas, screened with 3'- 5' high screening shrubs with 18" groundcover in front (door access).
35. Note on plans: All trees shall be tagged by the landscape architect and meet ANSI Z60.1 specifications for nursery stock; be free from defects, including co-dominant stems and girdling roots; root flare shall be visible at top of soil level. Defective plant material shall be removed and replaced as soon as possible and verified at final city inspection or turn over. Street trees shall have a minimum 5' trunk free of branches.
36. Note all landscape slopes 3:1 or greater to have jute matting installed and all landscape slopes 2:1 or greater to have erosion control blankets installed with 3-year durability.
37. 25% of trees to be native California trees; use at least 3 genus per project: Quercus agrifolia, Quercus wizlizenii, Quercus lobata, Sambucus Mexicana, Platanus Racemosa (riparian settings), Myrica californica (part shade) Heteromeles (tall shrub), Umbellularia californica (very slow-growing) or Chilopsis.
38. Note on plans that City staff may request an additional 15% of plant material.
39. Add Note to Grading and Landscape Plans: Landscape areas where compaction has occurred due to grading activities and where trees or stormwater infiltration areas are located shall be loosened by soil fracturing. For trees, a 12'x12'x18" deep area; for stormwater infiltration, the entire area shall be loosened. The following information shall be included on the plans: The backhoe method of soil fracturing shall be used to break up compaction. A 4" layer of Compost is spread over the soil surface before fracturing is begun. The backhoe shall dig into the soil lifting and then drop the soil immediately back into the hole. The bucket then moves to the adjacent soil and repeats. The Compost falls into the spaces between the soil chunks created. Fracturing shall leave the soil surface quite rough with large soil clods. These must be broken by additional tilling. Tilling in more Compost to the surface after fracturing per the soil report will help create an A horizon soil. Imported or reused Topsoil can be added on top of the fractured soil as needed for grading. The Landscape Architect shall be present during this process and provide certification of the soil fracturing. For additional reference, see Urban Tree Foundation – Planting Soil Specifications.



# CITY OF ONTARIO

## MEMORANDUM

TO: Scott Murphy, Community Development Director (Copy of memo only)  
Henry Noh, Planning Director (Copy of memo only)  
Diane Ayala, Advanced Planning Division (Copy of memo only)  
Charity Hernandez, Economic Development  
James Caro, Building Department  
Raymond Lee, Engineering Department  
Jamie Richardson, Landscape Planning Division  
Dennis Mejia, Municipal Utility Company  
Heather Lugo, Police Department  
Paul Erhman, Deputy Fire Chief/Fire Marshal  
Jay Bautista, Traffic/Transportation Manager  
Lorena Mejia, Airport Planning  
Nathan Pino, Engineering  
Angela Magana, Community Improvement (Copy of memo only)  
Jimmy Chang, IPA Department  
Blaine Ishii, Integrated Waste

FROM: Luis Batres, Senior Planner

**Revision #2**

DATE: March 18, 2024

SUBJECT: FILE #: PDEV23-036 Finance Acct#:

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The following project has been resubmitted for review. Please send one (1) copy and email one (1) copy of your DAB report to the Planning Department by .

**PROJECT DESCRIPTION:** A Development Plan to construct 3 commercial buildings totaling 60,889 square feet on 6.99 acres of land located at the northeast corner of Guasti Road and Haven Avenue, within the Office land use district of the Ontario Gateway Specific Plan (APN: 0210-212-60).

- The plan does adequately address the departmental concerns at this time.
- No comments
  - See previous report for Conditions
  - Report attached (1 copy and email 1 copy)
  - Standard Conditions of Approval apply
- The plan does not adequately address the departmental concerns.
- The conditions contained in the attached report must be met prior to scheduling for Development Advisory Board.

**Broadband Operations**

Department

Signature

Title

Date





# CITY OF ONTARIO MEMORANDUM

## DEVELOPMENT PLAN REVIEW CONDITIONS OF APPROVAL Broadband Operations Section

**DATE:** 3-22-24

**PROJECT:** PDEV23-036

**LOCATION:** Guasti/Haven

**PROJECT ENGINEER:**

**BROADBAND PLAN CHECKER:** Cameron Chadwick - CChadwick@ontarioca.gov

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**The following Conditions of Approval requirements must be incorporated prior to the Development Advisory Board and/or Zoning Administrator Hearing.**

1. Project shall be designed and constructed to provide access to the City's conduit and fiber optic system per the City's Fiber Optic Master Plan. Building entrance conduits shall start from the closest OntarioNet hand hole in the Right-of-Way (ROW) and shall terminate in the main telecommunications room for each building. Conduit infrastructure shall interconnect with the primary and/or secondary backbone fiber optic conduit system at the nearest OntarioNet hand hole.
2. Contractor is responsible for locating and connecting conduit to existing OntarioNet hand holes on adjacent properties within a reasonable distance. There should be no "Gaps" in conduit between the contractor's development and the adjacent property. OntarioNet hand holes are typically located in the ROW at the extreme edge of a property.
3. Where a joint telecom or street light street crossing is required, include (2) 2" HDPE SDR-11 conduits or (1) 4" schedule 80 conduit sleeve. Terminate the street crossing conduit(s) in a new HH-3/22 OntarioNet hand hole in the right of way
4. The City requires a public utility easement for fiber optics on all private aisles/alley ways.
5. Hand holes - Design and install OntarioNet fiber optic hand hole HH-FP (10x00x10), HH-1 (13x24x18), HH-2 (17x30x24), HH-2A (24x36x30), HH-3 (30x48x36) and/or HH-4 (36x60x36) as needed. Respectively, Newbasis Part # PLA100010T-00002, PCA132418-00006, PCA-173024-90116, PCA-243630-90064, PCA-304836-90244 and PCA-366036-90146 or equivalent as specified per City Standard 1316. Conduits sweeping into hand holes shall enter in flush with the cut-out mouse holes aligned parallel to the bottom of the box and come in perpendicular to the wall of the box. Conduits shall not enter at any angle other than parallel. Provide 5-foot minimum clearance from existing/proposed utilities. All hand holes will have ¼-inch galvanized wire between the hand holes and the gravel it is placed on.
6. ROW Conduit – Design and install fiber optic conduit at a minimum depth of 36-inch. Trenching shall be per City Standard 1306. Install (1) 2-inch HDPE SDR-11 (Smoothwall) roll pipe (Orange) duct and (1) 2-inch HDPE SDR-11 (Smoothwall) roll pipe (Orange with Black Stripe) duct. Conduit(s) between ROW hand holes and hand holes on private property shall be 2-inch HDPE SDR-11 (Smoothwall) roll pipe (Orange) duct.
7. Building Entrance (Single Family) – Design and install 0.75-inch HDPE SDR-11 (Smoothwall) roll pipe (Orange) duct from hand holes on property or hand holes in the ROW. Consult City's Fiber Team for design assistance.
8. Building Entrance (Multi-family and Commercial) - From the nearest handhole to the building entrance, design and install fiber optic conduit at a minimum depth of 36-inches. Trenching shall be per City Standard for Commercial Buildings. (1) 2-inch HDPE SDR-11 (Smoothwall) roll pipe (Orange) duct. Install

locate/tracer wires minimum 12AWG within conduit bank and fiber warning tape 18-inch above the uppermost duct

9. Multi-family and commercial properties shall terminate conduit in an electrical room adjacent to the wall no less than five inches above the finished floor. A 20" width X length 36" space shall be reserved on the plywood wall for OntarioNet equipment. This space shall be labeled "OntarioNet Only". Ontario Conduit shall be labeled "OntarioNet"
10. A minimum 13/16 millimeter microduct joint use telecommunications conduit with pull-rope from the single-family, multi-family or commercial building communal telecom/electrical room/closet to each multi-family or commercial building unit shall be installed. See Structured Wiring Checklist on City's website for additional details.
11. Warning Tape - Contractor shall supply and install an approved non-detectable warning tape 18-inch above the uppermost conduit when backfilling trenches, pits or excavations greater than 10' in length. Warning Tape shall be non-detectable, Orange in color, 4-inch minimum width, 4 mil, 500% minimum elongation, with bold printed black letters "CAUTION - BURIED FIBER OPTIC CABLE BELOW" printed in bold black lettering no less than 2-inch high.
12. All hand holes, conduits, conduit banks, materials and installations are per the City's Fiber Optic Master Plan and City Fiber Optic Cable and Duct Standards. All hand holes, conduits and ducts shall be placed in the public right of way.
13. All unused conduits/ducts/microducts shall be protected with duct plugs that provide a positive seal. Ducts that are occupied shall be protected with industry accepted duct seal compound.
14. Locate/Tracer Wire - Conduit bank requires (1) 12AWG high strength (minimum break load 452#) copper-clad steel with 30mil HDPE orange insulation for locate/tracer wire. Contact City's Fiber Team for tracer wire specifications and see note 8.
15. Multi-family dwellings are considered commercial property.
16. Refer to the In-tract Fiber Network Design guideline on the City's website for additional in-tract conduit guidelines.



# CITY OF ONTARIO

## MEMORANDUM

**TO:** Luis Batres, Senior Planner

**FROM:** Heather Lugo, MA, C.E.T. - Police Department

**DATE:** January 16, 2024

**SUBJECT:** PDEV23-036 – A Development Plan to construct 3 commercial buildings totaling 60,889 square feet on 6.99 acres of land located at the northeast corner of Guasti Road and Haven Avenue, within the Office land use district of the Ontario Gateway Specific Plan (APN: 0210-212-60).

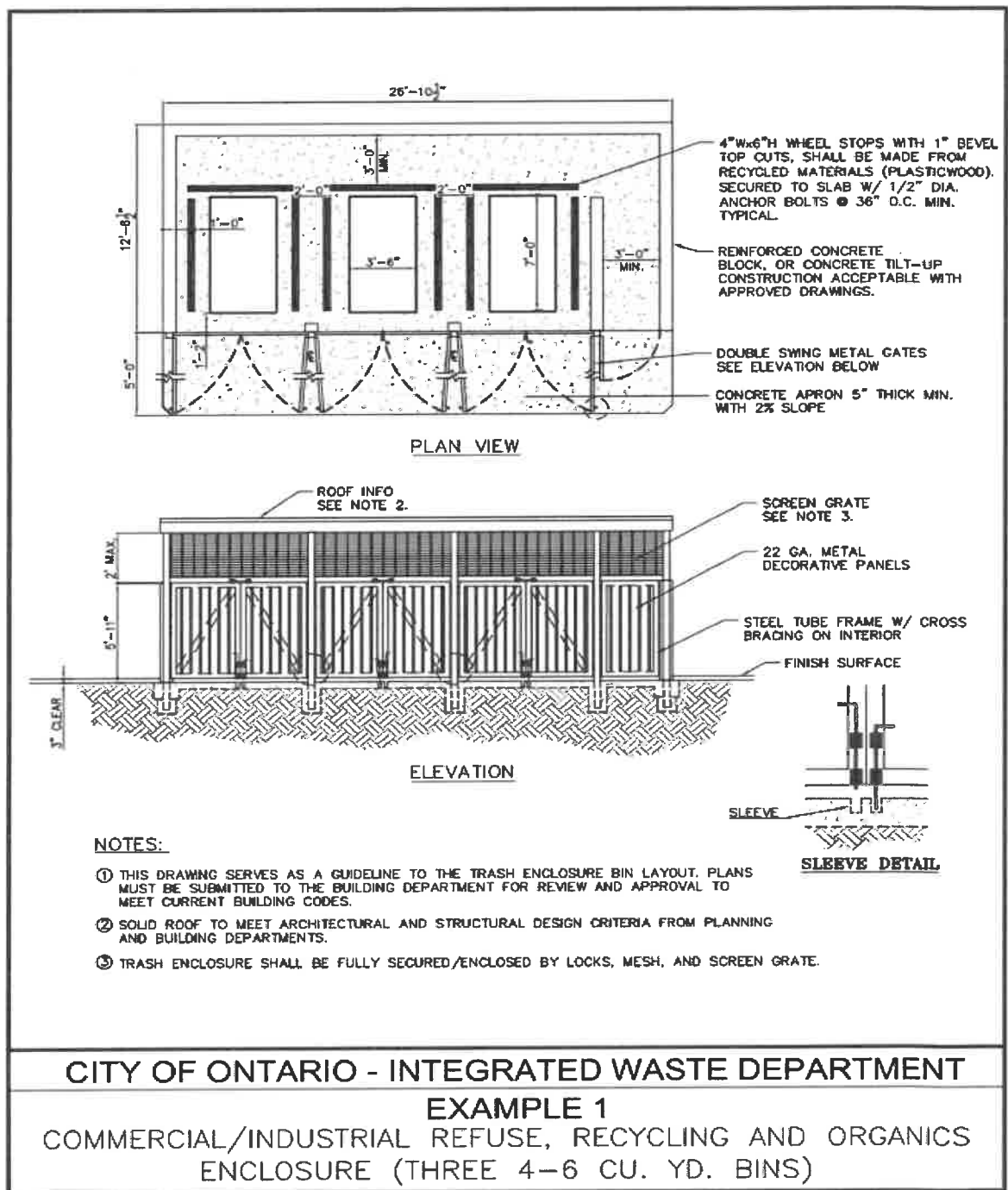
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The “Standard Conditions of Approval” contained in Resolution No. 2017-027 apply. The applicant shall read and be thoroughly familiar with these conditions, including but not limited to, the requirements listed below.

- Required lighting for all walkways, driveways, doorways, parking areas, and other areas used by the public shall be provided and operate on photosensor. Photometrics shall be provided to the Police Department. Photometrics shall include the types of fixtures proposed and demonstrate that such fixtures meet the vandal-resistant requirement. Planned landscaping shall not obstruct lighting.
- The Applicant shall comply with all construction site security requirements as stated in the Standard Conditions.
- The Applicant will be responsible for keeping the grounds of the business clean from debris and litter.
- Rooftop addresses shall be installed on the buildings as stated in the Standard Conditions. The numbers shall be at a minimum 3 feet tall and 1 foot wide, in reflective white paint on a flat black background, and oriented with the bottom of the numbers towards the addressed street. Associated letters shall also be included.
- Graffiti abatement by the business owner/licensee, or management shall be immediate and on-going on the premises, but in no event shall graffiti be allowed unabated on the premises for more than 72 hours. Abatement shall take the form of removal or shall be covered/painted over with a color reasonably matching the color of the existing building, structure, or other surface being abated. Additionally, the business owner/licensee, or management shall notify the City within 24 hours at (909) 395-2626 (graffiti hotline) of

any graffiti elsewhere on the property not under the business owner/licensee's or management control so that it may be abated by the property owner and/or the City's graffiti team.

- All exterior electrical outlets, accessible to the public, shall be secured and locked.
- All exterior water spigots / water supply sources, accessible to the public, shall be secured and locked.
- Trash enclosures, if accessible to the public, shall be fully secured/enclosed by locks, mesh, and screen grate to reduce crime and encampment opportunities for homeless persons.



**PROJECT REVIEW BOARD COMMENTS**  
**\*\*\* BUILDING DEPARTMENT \*\*\***

Planning Case File No(s): PDEV23-036

Case Planner: LUIS BATRES

Applicant:

Location: 3639 E. Guasti Rd.

Description: A Development Plan to construct 3 commercial buildings (Citrus Motors Ford & Kia) totaling 60,889 square feet on 6.99 acres of land located at the northeast corner of Guasti Road and Haven Avenue, within the Office-1 land use district of the Ontario Gateway Specific Plan (APN: 0210-212-60). submitted by  
Project: Robert Plan

APN(s): (APN: 0210-212-60).

Reviewed By: Jesse Sanchez

Date: 4/3/24

Following Standard Building Department Conditions of Approval  
Are Applicable to This Project:

See checked boxes below

Specific Conditions:

A)

Specific Comments (NOTE: THESE COMMENTS ARE NOT CONDITIONS!):

A)

**BUILDING DEPARTMENT****GENERAL CONDITIONS**

- 1. Shall comply with the latest adopted edition of the following codes as applicable:
  - A. California Building Code
  - B. California Residential Code
  - C. California Existing Building Code
  - D. California Electrical Code
  - E. California Mechanical Code
  - F. California Plumbing Code
  - G. California Energy Code.
  - H. California Fire Code
  - I. California Green Building Standards Code.
  
- 2. The property owner/business operator shall comply with all applicable City of Ontario Municipal Codes and Ordinances.
  
- 3. The requirements of the Department of Environmental Health Services and the Air Quality Management District shall be satisfied prior to the issuance of any permit if hazardous materials are stored and/or used.
  
- 4. Pursuant to the California Business and Professions Code Section 6737, most projects are required to be designed by a California Licensed Architect or Engineer. The project owner or developer should review the section of the California Codes and comply with the regulation
  
- 5. All perimeter / boundary walls shall be designed and constructed so that the outer/exterior face of the wall is as close as possible to the lot line. In any case, the outer/exterior face of the wall shall be within two (2) inches of the lot line. Distances greater than two (2) inches may be approved prior to construction by the Building Official on a case-by-case basis for extenuating circumstances.
  
- 6. All lot lines, easement lines, etc. shall be located and/or relocated in such a manner as to not cause any existing structure to become non-conforming with the requirements of the latest adopted edition of the Building Code, or any other applicable law, ordinance, or code.
  
- 7. The Developer/Owner is responsible for the coordination of the final occupancy. The Developer/Owner shall obtain clearances from each department and division prior to requesting a final building inspection from the Building Department. Each department shall sign the Building Department Job Card
  
- 8. All signs shall be Underwriters Laboratories, or equal, approved.

9. Permits are required prior to the removal and/or demolition of structures.
10. In addition to approval from Building Department, approval is required from the County of San Bernardino, Department of Public Health and the California Regional Water Quality Control Board, Santa Ana Region for the Private Sewage Disposal System.
11. The existing private sewage system will have to be modified as required to accommodate the new use. Plans and/or supporting data will have to be submitted to, and approved by, the Building Department regarding the new use and necessary modifications. Additionally, approval from the Regional Water Quality Control Board, Santa Ana Region, is required for the new use.
12. The coach shall bear a State of California, Department of Housing and Community Development (HCD) insignia indicating the occupancy group and design loads that the coach conforms to, and other relevant information regarding exiting, fire safety, electrical, plumbing and mechanical. The foundation system, porch and awning shall comply with plans that bear the HCD "Standard Plan Approval" stamp. The coach, foundation system, porch and awning shall comply with the City of Ontario's design loads and site-specific conditions.
13. The conversion of the existing single-family dwelling(s) into a commercial use changes the occupancy group classification, and therefore the existing buildings must be made to comply with the requirements of all applicable codes for the new occupancy classification. Complete plans, calculations and other specifications shall be submitted to the Building Department for review, approval and subsequent permit issuance. The plans, calculations and other specifications shall be prepared by an Architect or Registered Civil/Structural Engineer licensed by the State of California who is qualified to perform said work.
14. The site, or a portion of the site, is in a flood hazard area. Justification that the proposed development does not adversely affect the location or carrying capacity of the floodway, nor does it adversely affect upstream or downstream sites shall be provided to Building Department. Additionally, all provisions must be taken to protect the site from flood damage.
15. All exterior lighting shall be orientated, directed, and/or shielded as much as possible so that direct illumination does not infringe onto adjoining properties.
16. Site facilities such as parking open or covered, recreation facilities, and trash dumpster areas, and common use areas shall be accessible per the CBC, Chapter 11.
17. Trash Enclosure shall be covered, and the interior clearances shall be designed to accommodate the following:
- 4' min. side access entrance

- 3' min. wide clear pathway along rear of enclosure between trash bins and back wall.
  - Trash bins must be oriented sideways to allow access from the narrow dimension.
  - Use of curbs or wheel stops shall be provided within the enclosure to maintain access clearances and bin orientations.
18. The applicant/developer shall include the conditions of approval of this resolution on the construction plans.
19. Site development and grading shall be designed to provide access to all entrances and exterior ground floors exits and access to normal paths of travel, and where necessary to provide access. Paths of travel shall incorporate (but not limited to) exterior stairs, landings, walks and sidewalks, pedestrian ramps, curb ramps, warning curbs, detectable warning, signage, gates, lifts and walking surface materials. The accessible route(s) of travel shall be the most practical direct route between accessible building entrances, site facilities, accessible parking, public sidewalks, and the accessible entrance(s) to the site, California Building Code, (CBC) Chapter 11, Sec, 11A and 11B.
20. Commercial/Industrial gated site must have at least one pedestrian emergency gate, 3'-0' x 6'-8" min. gate size, equipped with panel hardware on the inside, and gate must swing out. Pedestrian emergency gates can be installed integrated with vehicular gates.
21. New residential single-family dwelling (SFD's):
- The side yard gate must swing out toward the street.
  - The gas meter shall not obstruct side yard access gates.
  - Air Conditioning unit located at side yard shall maintain 3' min. clearance from property line wall to AC unit.
  - Provide a continuous concrete walk between garage side door to driveway or sidewalk.
22. New development projects located in the Ontario Ranch specific plan are required to submit a **methane assessment report**. This report shall be submitted to the Building Department for review and approval at grading plan submittal.
23. If hazardous substances are used and/or stored, a technical opinion and report, identifying and developing methods of protection from the hazards presented by the hazardous materials may be required. This report shall be prepared by a qualified person, firm, or corporation and submitted to Building Department. This report shall also explain the proposed facility's intended methods of operation and list all of the proposed materials, their quantities, classifications, and the effects of any chemical (material) intermixing in the event of an accident or spill.
24. The property owner/business operator shall provide a grease interceptor at a location where it shall be easily accessible for inspection, cleaning, and removal of accumulated grease. The sizing and installation shall conform to the current California Plumbing Code. The grease interceptor shall be constructed in accordance with plans approved by the Director of Public



Works and the Building Official. The property owner/business operator shall contract with a maintenance company for maintenance and cleaning of the grease interceptor.

## **SITE CONSTRUCTION REQUIREMENTS**

- 25. All construction sites must be protected by a security fence and screening. The fencing and screening shall always maintained to protect pedestrians
- 26. Temporary toilet facilities shall be provided for construction workers. The toilet facilities shall be maintained in a sanitary condition. Construction toilet facilities of the non-sewer type shall conform to ANSI ZA.3
- 27. Construction projects which require temporary electrical power shall obtain an Electrical Permit from Building Department. No temporary electrical power will be granted to a project unless one of the following items is in place and approved by Building Department and the Planning Department.
  - (A) Installation of a construction trailer, or
  - (B) Security fenced area where the electrical power will be located
- 28. Installation of construction/sales trailers must be located on private property. No trailers can be in the public street right of way
- 29. Any temporary building, trailer, commercial coach, etc. installed and/or used in connection with a construction project shall comply with City Code.
- 30. Prior to issuance of a Building Permit all of the following must be in place: portable toilet with hand wash station, all BMP's, fencing and signage on each adjacent street saying "If there is any dust or debris coming from this site please contact (superintendent number here) or the AQMD if the problem is not being resolved" or something similar to this.

## **PRIOR TO ISSUANCE OF BUILDING/CONSTRUCTION PERMITS**

- 31. The following grading items shall be completed and/or submitted – as applicable – prior to the issuance of building permits for this project:
  - A. Precise grading plans shall be approved
  - B. Rough grading completed
  - C. Compaction certification completed
  - D. Pad elevation certification completed
  - E. Rough grade inspection signed off by a City's Building Inspector
- 32. Prior to the issuance of a Building Permit, the applicant shall pay all Development

Improvement Fees to the City. Copies of receipts shall be provided to the Building Department prior to permit issuance.

- 33. The Tract or Parcel map shall record prior to the issuance of any permits.
- 34. The existing parcels shall be combined into a single parcel, or a lot line adjustment shall be done so that the proposed structure(s) does not cross any lot line and complies with all requirements of the California Building Code, prior to any building permits being issued.
- 35. Fire sprinklers, fire alarm systems and fire hydrant plans shall be submitted for plan review concurrently with building plans and shall be approved prior to permit issuance
- 36. Prior to issuance of Building Permits, school fees need to be paid to school district where project is located



# CITY OF ONTARIO MEMORANDUM

**TO:** Luis Batres, Senior Planner  
Planning Department

**FROM:** Paul Ehrman, Sr. Deputy Fire Chief/Fire Marshal  
Fire Department

**DATE:** January 29, 2024

**SUBJECT:** PDEV23-036 - A Development Plan to construct 3 commercial buildings totaling 60,889 square feet on 6.99 acres of land located at the northeast corner of Guasti Road and Haven Avenue, within the Office land use district of the Ontario Gateway Specific Plan (APN: 0210-212-60). (Rev I).

- 
- The plan **does** adequately address Fire Department requirements at this time.
- Approved. Met requirements from previous comments on PDEV23-036.
- 

## SITE AND BUILDING FEATURES:

- A. 2019 CBC Type of Construction: Type V-B
- B. Type of Roof Materials: Ordinary
- C. Ground Floor Area(s): Varies, 3 Buildings
- D. Number of Stories: 1
- E. Total Square Footage: Varies, 3 Buildings Totaling 60,889 Sq. Ft.
- F. 2019 CBC Occupancy Classification(s): S-1, M, B



# CITY OF ONTARIO

## MEMORANDUM

**TO:** Luis Batres, Senior Planner  
Planning Department

**FROM:** Paul Ehrman, Sr. Deputy Fire Chief/Fire Marshal  
Fire Department

**DATE:** October 17, 2023

**SUBJECT:** PDEV23-036 - A Development Plan to construct 3 commercial buildings totaling 60,889 square feet on 6.99 acres of land located at the northeast corner of Guasti Road and Haven Avenue, within the Office land use district of the Ontario Gateway Specific Plan (APN: 0210-212-60).

- 
- The plan does NOT adequately address Fire Department requirements at this time
- Standard Conditions of Approval apply, as stated below.

**NOTE:** Please show emergency vehicle access routes to the North and East side of the project.

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### SITE AND BUILDING FEATURES:

- A. 2019 CBC Type of Construction: Type V-B
- B. Type of Roof Materials: Ordinary
- C. Ground Floor Area(s): Varies, 3 Buildings
- D. Number of Stories: 1
- E. Total Square Footage: Varies, 3 Buildings Totaling 60,889 Sq. Ft.
- F. 2019 CBC Occupancy Classification(s): S-1, M, B

## **CONDITIONS OF APPROVAL:**

### **1.0 GENERAL**

- ☒ 1.1 The following are the Ontario Fire Department ("Fire Department") requirements for this development project, based on the current edition of the California Fire Code (CFC), and the current versions of the Fire Prevention Standards ("Standards.") It is recommended that the applicant or developer transmit a copy of these requirements to the on-site contractor(s) and that all questions or concerns be directed to the Bureau of Fire Prevention, at (909) 395-2029. For copies of Ontario Fire Department Standards please access the City of Ontario web site at [www.ontarioca.gov/Fire/Prevention](http://www.ontarioca.gov/Fire/Prevention).
- ☒ 1.2 These Fire Department conditions of approval are to be included on any and all construction drawings.

### **2.0 FIRE DEPARTMENT ACCESS**

- ☒ 2.1 Fire Department vehicle access roadways shall be provided to within 150 ft. of all portions of the exterior walls of the first story of any building, unless specifically approved. Roadways shall be paved with an all-weather surface and shall be a minimum of twenty-four (24) ft. wide. See Standard #B-004.
- ☒ 2.2 In order to allow for adequate turning radius for emergency fire apparatus, all turns shall be designed to meet the minimum twenty five feet (25') inside and forty-five feet (45') outside turning radius per Standard #B-005.
- ☒ 2.3 Fire Department access roadways that exceed one hundred and fifty feet (150') in length shall have an approved turn-around per Standard #B-002.
- ☒ 2.4 Access drive aisles which cross property lines shall be provided with CC&Rs, access easements, or reciprocating agreements, and shall be recorded on the titles of affected properties, and copies of same shall be provided at the time of building plan check.
- ☒ 2.5 "No Parking-Fire Lane" signs and /or red painted curbs with lettering are required to be installed in interior access roadways, in locations where vehicle parking would obstruct the minimum clear width requirement. Installation shall be per Standard #B-001.
- ☒ 2.6 Security gates or other barriers on fire access roadways shall be provided with a Knox brand key switch or padlock to allow Fire Department access. See Standards #B-003, B-004 and H-001.
- ☒ 2.7 Any time PRIOR to on-site combustible construction and/or storage, a minimum twenty-four (24) ft. wide circulating all weather access roads shall be provided to within 150 ft. of all portions of the exterior walls of the first story of any building, unless specifically approved by fire department and other emergency services.

### 3.0 WATER SUPPLY

- ☒ 3.1 The required fire flow per Fire Department standards, based on the 2019 California Fire Code, Appendix B, is 2500 gallons per minute (g.p.m.) for 4 hours at a minimum of 20 pounds per square inch (p.s.i.) residual operating pressure.
- ☒ 3.2 Off-site (public) fire hydrants are required to be installed on all frontage streets, at a minimum spacing of three hundred foot (300') apart, per Engineering Department specifications.
- ☒ 3.4 The water supply, including water mains and fire hydrants, shall be tested and approved by the Engineering Department and Fire Department prior to combustible construction to assure availability and reliability for firefighting purposes.

### 4.0 FIRE PROTECTION SYSTEMS

- ☒ 4.1 On-site private fire hydrants are required per Standard #D-005, and identified in accordance with Standard #D-002. Installation and locations(s) are subject to the approval of the Fire Department. An application with detailed plans shall be submitted, and a construction permit shall be issued by the Fire Department, prior to any work being done.
- ☒ 4.2 Underground fire mains which cross property lines shall be provided with CC & R, easements, or reciprocating agreements, and shall be recorded on the titles of affected properties, and copies of same shall be provided at the time of fire department plan check. The shared use of private fire mains or fire pumps is allowable only between immediately adjacent properties and shall not cross any public street.
- ☒ 4.3 An automatic fire sprinkler system is required. The system design shall be in accordance with National Fire Protection Association (NFPA) Standard 13. All new fire sprinkler systems, except those in single family dwellings, which contain twenty (20) sprinkler heads or more shall be monitored by an approved listed supervising station. An application along with detailed plans shall be submitted, and a construction permit shall be issued by the Fire Department, prior to any work being done.
- ☒ 4.4 Wood frame buildings that are to be sprinkled shall have these systems in service (but not necessarily finalized) before the building is enclosed.
- ☒ 4.5 Fire Department Connections (FDC) shall be located on the address side of the building within one hundred fifty feet (150') of a public fire hydrant on the same side of the street. Provide identification for all fire sprinkler control valves and fire department connections per Standard #D-007. Raised curbs adjacent to Fire Department connection(s) shall be painted red, five feet either side, per City standards.
- ☒ 4.6 A fire alarm system is required. The system design shall be in accordance with National Fire Protection Association (NFPA) Standard 72. An application along with detailed plans shall be submitted, and a construction permit shall be issued by the Fire Department, prior to any work being done.

- ☒ 4.7 Portable fire extinguishers are required to be installed prior to occupancy per Standard #C-001. Please contact the Fire Prevention Bureau to determine the exact number, type and placement required.

## **5.0 BUILDING CONSTRUCTION FEATURES**

- ☒ 5.1 The developer/general contractor is to be responsible for reasonable periodic cleanup of the development during construction to avoid hazardous accumulations of combustible trash and debris both on and off the site.
- ☒ 5.2 Approved numbers or addresses shall be placed on all new and existing buildings in such a position as to be plainly visible and legible from the street or road fronting the property. Multi-tenant or building projects shall have addresses and/or suite numbers provided on the rear of the building. Address numbers shall contrast with their background. See Section 9-1 6.06 of the Ontario Municipal Code and Standards #H-003 and #H-002.
- ☒ 5.3 Single station smoke alarms and carbon monoxide alarms are required to be installed per the California Building Code and the California Fire Code.
- ☒ 5.6 Knox ® brand key-box(es) shall be installed in location(s) acceptable to the Fire Department. All Knox boxes shall be monitored for tamper by the building fire alarm system. See Standard #H-001 for specific requirements.
- ☒ 5.7 Placards shall be installed in acceptable locations on buildings that store, use or handle hazardous materials in excess of the quantities specified in the CFC. Placards shall meet the requirements of National Fire Protection Association (NFPA) Standard 704.

## **6.0 OTHER SPECIAL USES**

- ☒ 6.1 The storage, use, dispensing, or handling of any hazardous materials shall be approved by the Fire Department, and adequate fire protection features shall be required. If hazardous materials are proposed, a Fire Department Hazardous Materials Information Packet, including Disclosure Form and Information Worksheet, shall be completed and submitted with Material Safety Data Sheets to the Fire Department along with building construction plans.
- ☒ 6.2 Any High Piled Storage, or storage of combustible materials greater than twelve (12') feet in height for ordinary (Class I-IV) commodities or storage greater than six feet (6') in height of high hazard (Group A plastics, rubber tires, flammable liquids, etc.) shall be approved by the Fire Department, and adequate fire protection features shall be required. If High Piled Storage is proposed, a Fire Department High Piled Storage Worksheet shall be completed and detailed racking plans or floor plans submitted prior to occupancy of the building.
- ☒ 6.3 Underground fuel tanks, their associated piping and dispensers shall be reviewed, approved, and permitted by Ontario Building Department, Ontario Fire Department, and San Bernardino County Fire Department Hazardous Materials Division. In fueling facilities, an exterior emergency pump shut-off switch shall be provided.

# AIRPORT LAND USE COMPATIBILITY PLANNING

## CONSISTENCY DETERMINATION REPORT



Project File No.: PDEV23-036  
 Address: Northeast corner of Guasti Road and Haven Avenue  
 APN: 0210-212-60  
 Existing Land Use: Vacant  
 Proposed Land Use: 3 commercial buildings totaling 60,889 for car sales and service building  
 Site Acreage: 6.99 Proposed Structure Height: 32 FT  
 ONT-IAC Project Review: n/a  
 Airport Influence Area: ONT

Reviewed By: Lorena Mejia  
 Contact Info: 909-395-2276  
 Project Planner: Luis Batres  
 Date: 4/8/2024  
 CD No.: 2023-014  
 PALU No.: n/a

### The project is impacted by the following ONT ALUCP Compatibility Zones:

Safety	Noise Impact	Airspace Protection	Overflight Notification
<input type="radio"/> Zone 1	<input type="radio"/> 75+ dB CNEL	<input type="checkbox"/> High Terrain Zone	<input type="checkbox"/> Avigation Easement Dedication
<input type="radio"/> Zone 1A	<input type="radio"/> 70 - 75 dB CNEL	<input checked="" type="checkbox"/> FAA Notification Surfaces	<input checked="" type="checkbox"/> Recorded Overflight Notification
<input type="radio"/> Zone 2	<input type="checkbox"/> 65 - 70 dB CNEL	<input checked="" type="checkbox"/> Airspace Obstruction Surfaces	<input type="radio"/> Real Estate Transaction Disclosure
<input type="checkbox"/> Zone 3	<input checked="" type="checkbox"/> 60 - 65 dB CNEL	<input type="checkbox"/> Airspace Avigation Easement Area	
<input type="radio"/> Zone 4		Allowable Height: 120 FT	
<input type="radio"/> Zone 5			

### The project is impacted by the following Chino ALUCP Safety Zones:

Zone 1   
  Zone 2   
  Zone 3   
  Zone 4   
  Zone 5   
  Zone 6  
 Allowable Height: \_\_\_\_\_

## CONSISTENCY DETERMINATION

This proposed Project is:  Exempt from the ALUCP   
 Consistent   
 Consistent with Conditions   
 Inconsistent

The proposed project is located within the Airport Influence Area of Ontario International Airport (ONT) and was evaluated and found to be consistent with the policies and criteria of the Airport Land Use Compatibility Plan (ALUCP) for ONT.

Airport Planner Signature: \_\_\_\_\_